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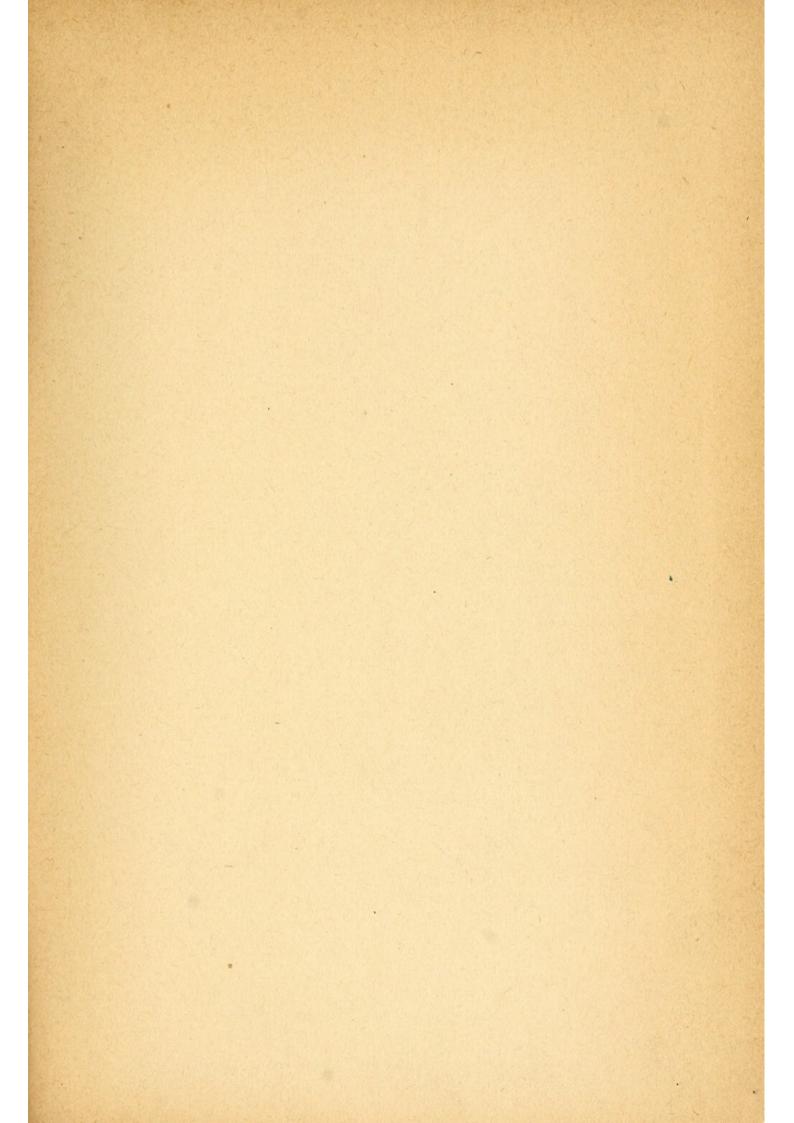
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IMPORTERS, MANUFACTURERS, WHOLESALE
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SURGEONS' APPLIANCES

OF EVERY DESCRIPTION.



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1889.

THE BLAKELY PRINTING COMPANY, CHICAGO.



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	For . 15	-		
- Francisco	FOR A THIGH STOCKING.—Circumference	STOUT SILK.	SILK.	COTTON
	at A, B, C, D, E, F, G, H, I. Length from floor to F, and from F to I			
		φ 9 00	P 7 50	\$ 5 75
16 24	FOR A THIGH LEGGING.—Circumference			
) 3	at C, D, E, F, G, H, I Length from C to F, and from F to I	7 50	6.00	5 25
13	FOR A THIGH KNEE-CAP.—Circumference	7 50	0 00	5 25
R	at E, F, G, H, I. Length from F to I.	5 00	4 00	0.50
The state of the s	FOR A THIGH PIECE.—Circumference at	5 00	4 00	3 50
The same and the s	G, H, I. Length from G to I	2 50	2 00	I 75
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0 3 3	at A, B, C, D, E, F, G. Length from			
M	floor to F, and from F to G	6 50	5 00	2 75
L	FOR A KNEE LEGGING -Circumference at	0 30	5 00	3 13
	C, D, E, F, G Length from C to F,			
	and from F to G	5 00	4 00	3 50
N	FOR A KNEE-CAP Circumference at E,		1	
	F, G. Length from E to F, and F to G.	2 50	2 00	I 75
	FOR A GARTER STOCKING Circumference			
A	at A, B, C, D, E. Length from floor to E.	4 00	3 00	2 00
	FOR A GARTER LEGGING Circumference			
c Marie	at C, D, E. Length from C to E	2 50	2 00	I 75
	FOR AN ANKLET Circumference at A, B,			
- 11 1201	C. Length from floor to C	2 50	2 00	1 75
	FOR A WRISTLET -Circumference at N,	1 8		
	O, P. Length from N to P	1 00		
7.3	Wristlet, with hand-piece	2 50		
	FOR AN ABDOMINAL BELT.—Circumfer-			
C. C. Sunta	ence at K, L, M. Depth in front and		111111	
8	back	10 00		8 00
^-	FOR AN UMBILICAL BELT WITH PAD.	100000		1100
DIA.	Circumference at the Navel	11 00		9 00
	FOR A SHOULDER CAP.—Circumference of			
STATE TO THE REAL PROPERTY.	Chest at Axilla T. Arm from Axilla to S, and Axilla to R. Arm three			
一种生态	inches below Axilla	8 00		6 00

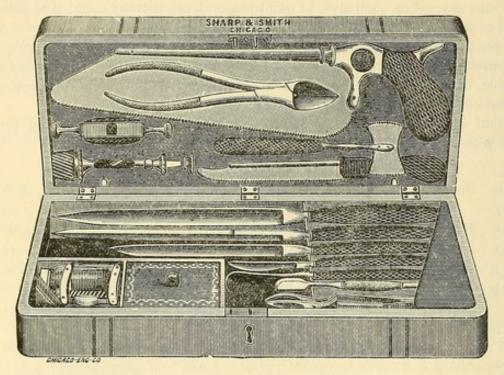
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We furnish the following cases at prices quoted, only when sold complete. We make several of each style at one time, and are thereby enabled to sell the cases complete, at a much less figure than the instruments would amount to if sold separately. In omitting any instrument we cannot allow the net price for each instrument, and if cases are wanted modified we will make the prices reasonable, or will be pleased to send quotations on same or entirely new and special cases which we make it a point to turn out very quickly.

Old instruments can be repaired and made to look like new, and put in cases with new instruments.

	FIG.		
雅	900. 5	Sharp & Smith's Amputating and Trephining Case\$26	
	901.	" " " " No. 2 24	
*		Parker's General Operating Set	
		Sharp & Smith's Set of Amputating Instruments No. 318	
*	904.	" Amputating and Minor Operating Set 39	00
	904-A.	Sharp & Smith's Amputating and Minor Operating Set	
		ivory handles51	00
*	905. 8	Sharp & Smith's General Operating Case No. 5, with Minor	
		Operating Case inclosed	00
	906. 8	Sharp & Smith's General Operating Case No. 6 with Minor	
		Operating Case inclosed 52	50
	906-A.	Sharp & Smith's General Operating Case No. 7 with Minor	
		Operating Case inclosed125	
	907. 8	Sharp & Smith's General Operating Set No. 1 52	
	907-A.	" " " in ivory handles 63	00
	908.	" " " No. 2 75	00
	909. 1	Mott's General Operating Set54	00
	910.	Markoe's " " 50	00
		California " " 50	
		Buck's General Operating Set	00
	, ,	Detmold's " "	
		Seymour's " "32	
		Parker's Compact Operating Set	
		Blackman's General " 98	
		Γrephining Set	
		Post's General Operating Set	
		Sharp & Smith's Operating Set	
		Bone Exsecting Set	
	921.	Wood's General Operating Set52	00
		Hamilton's " "	
	923.	Conant's Amputating and Minor Operating Case 40	00
		All instruments designated by a * are illustrated.	

All instruments designated by a * are illustrated. See "Supplement" for other Operating Cases.



*Fig. 900. Sharp & Smith's Amputating and Trephining Case, No. 1.

Sharp & Smith's Amputating and Trephining Set, No. 1.

- I Liston's long Knife, hip and thigh.
- I Liston's medium Knife, leg and arm. I Metacarpal Saw.
- I Catling, foot and hand.
- I Tenaculum.
- I Scalpel.
- I Elevator and Raspatory.
- I Brush.
- I Hey's Saw.

- I Capital Saw.
- 1 Galt's conical Trephine and Handle.
- r Pair spring-catch Fenestrated Artery Forceps.
- 1 Tourniquet.
- 1 Pair Liston's Bone Forceps.
- Needles, Silk, Plastic Pins, Wax, etc.

Mahogany Case, lined with oil dyed velvet.......\$26 00

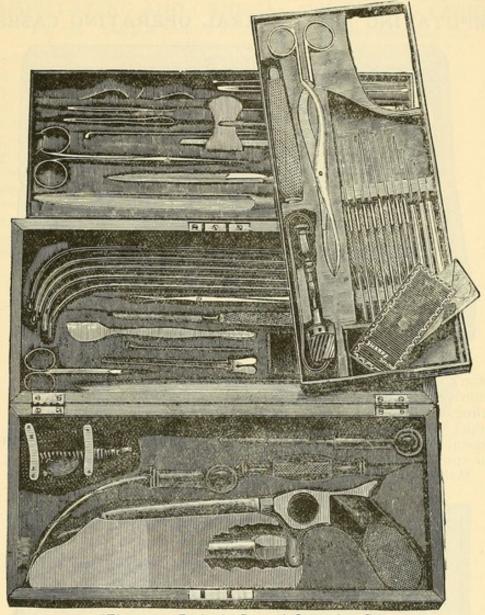
Fig. 901. Sharp & Smith's Amputating and Trephining Set, No. 2.

- I Liston's Knife.
- 1 Catling.
- I Tenaculum.
- I Scalpel.
- I Elevator and Raspatory.
- I Brush.
- I Hey's Saw.
- r Capital Saw.

- 1 Metacarpal Saw.
- 1 Galt's Trephine.
- 1 Pair spring-catch Fenestrated Artery Forceps.
- 1 Tourniquet.
- 1 Pair Liston's Bone Forceps.
- Needles, Silk, Plastic Pins, Wax, etc.

Mahogany Case, lined with oil-dyed velvet\$24 75

All instruments designated by a * are illustrated.



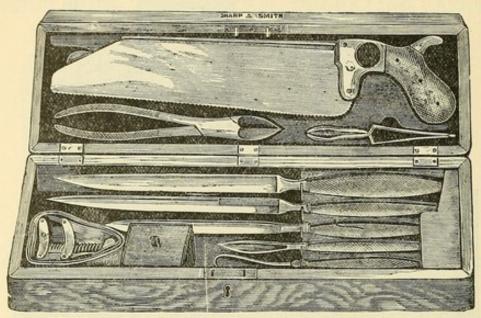
*Fig. 902. Parker's General Operating Set.
Liston's Amputating Knife, screw handle, I Tiemann & Co.'s Bullet Forceps.
Liston's Amputating Knife medium Size. I Tenotome.

- Small Catlin.
- Capital Saw.
- Metacarpal Saw.
- German Silver Wire Eye Speculum.
- Hey's Saw.
- Trephining Elevator and Raspatory
- Galt's Trephine and Handle.
- Finger Knife.
- Curved Probe Pointed Bistoury.
- Curved Sharp Pointed Bistoury.
- Cooper's Hernia Knife.
- Scalpels, assorted.
- Cataract Knife.
- Parker's Lachrymal Needle.
- Exploring Trocar.
- Director, steel.
- Pair Probes, Silver.

- Pair Parker's Retractors.
- Small Trocar, straight.
- Rectum Trocar, curved.
- Pair Artery Forceps, plain.
- Pair Polypus Forceps.
- Steel Sound.
- Lithotomy Staffs. Lithotomy Bistoury.
- Pair Lithotomy Forceps.
- I Pair Liston's Bone Forceps. I Pair Eye Scissors, curved on the flat.
- 2 Silver Catheters.
- Spiral Tourniquet. Eye Needle, curved.
- Set Parker's Aneurism Needles.
- Pair Strabismus Forceps.
- Pair Artery Forceps, spring-catch, plain.

Needles, Silk, Plastic Pins, Wax, Etc.

Rosewood Case, brass-bound, lined with silk velvet, one patent leather cover, waterproof... \$67 oo



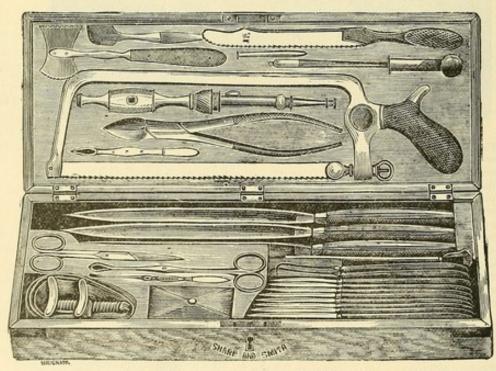
*Fig. 903. Sharp & Smith's Set of Amputating Instruments. No. 3.

- Liston's Knife, hip and thigh.
- Liston's Knife, leg and arm.
- I Catling, small, hand and foot.
- I Scalpel.
 I Tenaculum.

- 1 Metacarpal Saw.
- 1 Capital Saw, solid handle.
- Tourniquet.Pair Bone Forceps.

Needles, Silk, Plastic Pins, Wax, etc.

I Pair spring-catch Artery Forceps. Mahogany Case, lined with fine oil-dyed velvet\$18 75



*Fig. 904. Sharp and Smith's Amputating and Minor Operating Set. For contents see next page.....\$39 00

*Fig. 904. Sharp & Smith's Amputating and Minor Operating Set. Illustrated on preceding page.

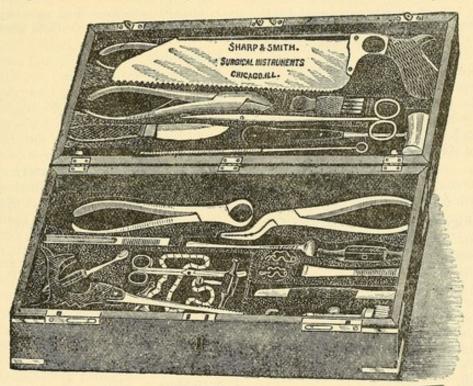
Bow Saw,	two	Ы	ad	es.
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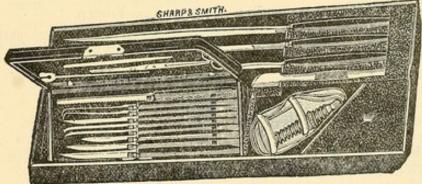
- I Large Amputating Knife.
- I Medium Amputating Knife.
- 1 Small Amputating Knife.
- 1 Pair Artery Forceps, Bull Dog
- 3 Scalpels.
- Finger Bistoury.
- 1 Curved Probe Bistoury.
- 1 Tenotome.
- 1 Curved Sharp Bistoury.
- I Hernia Bistoury.
- I Tenaculum.
- I Aneurism Needle. I Spiral Tourniquet.

1 Director.

- I Hey's Saw.
- 1 Movable Back Saw.
- I Conica! Trephine.
- I Bone Forceps, with spring.
 - 1 Trocar and Canula
 - I Vulsellum Forceps.
 - 1 Tortion Forceps.
 - I Elevator and Brush.
- 1 Pair Straight Scissors.
 - 1 Pair Curved Scissors
 - 1 Exploring Needle

Needles, Silk, Plastic Pins, Wax, etc.





*Fig. 905. Sharp & Smith's General Operating Case No. 5, with Minor Operating Case inclosed.

	ading page
	reding page.
Liston's Knife, hip and thigh.	1 Tiemann & Co.'s Bullet Probe.
Liston's Knife, leg and arm.	1 Lead Mallet.
1 Catlin, small.	1 Bone Chisel.
1 Bow Saw.	1 Bone Gouge.
1 Liston's Bone Forceps, curved.	r Scissors, curved on the flat.
1 Spiral Tourniquet.	Dressing and Polypus Forcep.
1 Galt's Trephine and Handle.	1 Piffard's Bone Scoop.
1 Elevator and Raspatory.	1 Sayre's Periosteotome.
1 Hey's Saw.	1 Satterlee's Bone Forcep.
ı Brush.	2 Steel Serresfins.
1 Trocar and Canula.	1 Van Buren's Sequestrum Forcep
r Heavy Cartilage Knife.	1 Curved Hand Gouge.
2 Retractors, Parker's.	r Ferguson's Lion Jaw Bone Forcep.
1 Tiemann & Co.'s Bullet Forceps.	I Chain Saw.
	s set are fitted into a compact minor operating case,
	carried in the pocket if desired. This minor case
is leather covered and velvet lined, and contain	
1 Metacarpal Saw.	1 Tenaculum.
2 Scalpels.	1 Bulldog Artery Forcep.
1 Sharp-point Bistoury.	ı Pair Scissors.
r Probe-point Bistoury.	Director and Tongue Tie.
Tenotome.	I Aneurism Needle.
French Finger Knife.	2 Long Silver Probes.
Plain Artery Forcep.	2 Long Silver Flobes.
I waive needles suit coul at silver w	ure way and pins all in a finely
Twelve needles, silk, coil of silver w	
carved, brass bound case, lined w	vith oil-dyed velvet, and supplied
carved, brass bound case, lined w	
carved, brass bound case, lined w with patent leather, slip-over cove	vith oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined w with patent leather, slip-over cove Fig. 906. Sharp & Smith's Opera	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over cover Fig. 906. Sharp & Smith's Operate Liston's Knife, hip and thigh.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined with patent leather, slip-over coverage Fig. 906. Sharp & Smith's Operate Liston's Knife, hip and thigh. Liston's Knife, leg and arm.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over cover Fig. 906. Sharp & Smith's Operate Liston's Knife, hip and thigh. I Liston's Knife, leg and arm. Catlin, small.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over coverage Fig. 906. Sharp & Smith's Operate Liston's Knife, hip and thigh. I Liston's Knife, leg and arm. Catlin, small. Bow Saw.	with oil-dyed velvet, and supplied er, waterproof
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carved, brass bound case, lined we with patent leather, slip-over cover. Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over cover. Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over cover. Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over cover. Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over covering process. Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined we with patent leather, slip-over covered Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula.	with oil-dyed velvet, and supplied er, waterproof
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carved, brass bound case, lined weight patent leather, slip-over covered Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain	with oil-dyed velvet, and supplied er, waterproof
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carved, brass bound case, lined weight patent leather, slip-over covered Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined weight patent leather, slip-over covered Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels. Sharp-point Bistoury.	with oil-dyed velvet, and supplied er, waterproof
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carved, brass bound case, lined weight patent leather, slip-over covered. Fig. 906. Sharp & Smith's Operation Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels. Sharp-point Bistoury. Probe-point Bistoury. Tenotome. French Finger Knife.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined weight patent leather, slip-over covered. Fig. 906. Sharp & Smith's Opera I Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels. Sharp-point Bistoury. Probe-point Bistoury. Tenotome. French Finger Knife. Plain Artery Forcep.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined weight patent leather, slip-over covered. Fig. 906. Sharp & Smith's Opera I Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels. Sharp-point Bistoury. Probe-point Bistoury. Tenotome. French Finger Knife. Plain Artery Forcep.	with oil-dyed velvet, and supplied er, waterproof
carved, brass bound case, lined weight patent leather, slip-over covered Fig. 906. Sharp & Smith's Operated Liston's Knife, hip and thigh. Liston's Knife, leg and arm. Catlin, small. Bow Saw. Bone forcep, Liston's best. Spiral Tourniquet. Galt's Trephine and Handle. Elevator and Raspatory. Hey's Saw. Brush. Trocar and Canula. The following instruments included in this which can be removed from the larger one and is leather covered and velvet lined, and contain Metacarpal Saw. Scalpels. Sharp-point Bistoury. Probe-point Bistoury. Tenotome. French Finger Knife. Plain Artery Forcep. Silk, coil of silver wire, pins and was	with oil-dyed velvet, and supplied er, waterproof

Fig. 906-A. Sharp & Smith's Complete Operating Case No. 7.

	and the second	-	mprete operating case ite. /.
	Same Style	as	Fig. 905.
1	Liston's Knife, hip and thigh.	1	Bone Gnawing Forcep.
	Liston's Knife, leg and arm.		Sponge Holders.
	Catlin, small.		Horn Screw for Lockjaw.
	Bow Saw, two blades.		Lithotomy Staff.
	Liston's Bone Forceps, curved.		Lithotomy Forcep.
	Spiral Tourniquet.		Lithotomy Bistoury.
	Galt's Trephine and Handle.		Gaylard's Bone Drill.
	Elevator and Raspatory.		Set Brainard's Bone Drills.
	Hey's Saw.	I	Fenestrated Slide-catch Forcep.
	Brush.		Fritche's Needle Holder.
	Trocar and Canula.	I	Cooper's Hernia Knife.
I	Heavy Cartilage Knife.		Large Trepanning Scalpel.
	Retractors, Parker's.		Steel Sounds.
I	Tiemann & Co.'s Bullet Forceps.	2	Male Catheters, plated.
	Tiemann & Co.'s Bullet Probe.		Pair Vulselium Forceps.
I	Lead Mallet.		Plain Artery Forcep, heavy.
1	Bone Chisel.	I	Eye Speculum, Noyes', best.
I	Bone Gouge.		Dix's Spud.
I	Scissors, curved on the flat.	1	Beer's Knife.
I	Polypus Forcep.	I	Linear Knife.
1	Piffard's Bone Scoop.	I	Iris Forcep.
1	Sayre's Periosteotome.	I	Iris Scissors.
	Satterlee's Bone Forceps.	I	Curved Trocar.
2	Steel Serresfins.	I	Eye Needle.
I	Van Buren's Sequestrum Forceps.		Brunn's Bone Scoop.
	Curved Hand Gouge.	1	Chain Saw Carrier.
1	Ferguson's Lion Jaw Bone Forceps.	I	Double Operating Hook.
I	Chain Saw, rotating handles.	I	Adams' Subcutaneous Saw.
	The following instruments included in this	set	are fitted into a compact minor operating case-
wl	hich can be removed from the larger one and	car	ried in the pocket if desired. This minor case
	leather covered and velvet lined, and contain		The second particular and the second
	Metacarpal Saw.		Bulldog Artery Forceps.
	Scalpels.		Pair Scissors.
	Sharp-point Bistoury.	I	Director and Tongue Tie.
	Probe-point Bistoury.	1	
	Tenotome.		Long Silver Probes.
I	French Finger Knife.	12	Needles, silk, coil of silver wire, one

All in a finely finished case, lined with fine oil-dyed velvet, with patent leather waterproof cover for case.....\$125 00

coil iron wire, wax and pins.

1 Plain Artery Forcep.

I Tenaculum.

ASK FOR

SHARP & SMITH'S INSTRUMENTS

When Ordering through Dealers.

Fig. 907. Sharp & Smith's General Operating Set No. 1.

1	Amputating Saw, best,
1	Metacarpal Saw, movable back.
1	Galt's Trephine and Handle.
1	Hey's Skull Saw.
I	Trephine Elevator and Raspatory.

- 1 Pair Bone Forceps.
- 1 Pair Lithotomy Forceps.
- Pair Bullet Forceps.
- 1 Trocar and Canula.
- 2 Urethral Sounds.
- 1 Lithotomy Staff.
- 1 Male Catheter, silver plated.
- r Spiral Tourniquet.
- 1 Amputating Knife, long.
- 1 Amputating Knife, medium.
- 1 Catlin, long.

Needles, Silk, Plastic Pins, Wax, etc.

- 1 Lithotomy Bistoury.
- I Grooved Director and Tongue Tie.
- 1 Set Mott's Aneurism Needles.
- I Tenaculum.
- 1 Hernia Knife.
- 1 Bistoury, probe-pointed.
- 1 Bistoury, sharp-pointed.
- 4 Scalpels, assorted.
- I Tenotome.
- 1 Pair Scissors, straight.
- 1 Pair Scissors, curved on flat.
- Pair Artery Torsion or Needle Forceps.
- 1 Pair Vulsellum Forceps.
- 1 Exploring Needle.
- 1 Pair Artery Forceps, fenestrated.

Fig. 908. Sharp & Smith's General Operating Set, No. 2.

- 2 Retractors.4 Scalpels, assorted sizes.
- 1 Straight Bistoury.
- 1 Sharp-curved Bistoury.
- 1 Probe-curved Bistoury.
- 1 Hernia Knife.
- 1 Aneurism Needle.
- I Tenaculum.
- 1 Director and Tongue Tie.
- 1 Tourniquet.
- 1 Liston's Knife.
- I Catlin.
- r Screw Handle to fit above.
- I Bow Saw with two Blades.
- 1 Screw Handle to fit above.
- 1 Phelps' Artery Forceps.
- 1 Plain Artery Forceps.
- 1 Pair Straight Scissors.
- 1. Pair Curved Scissors.
- 1 Trephine Elevator.

- 2 Silver Probes, five inches.
- 1 Silver Probe, seven inches.
- 1 Nelaton Probe.
- 1 Mathieu's Throat Forceps.
- 1 Pair Liston's Bone Forceps.
- I Trocar.
- 1 Galt's Trephine.
- 1 Van Buren's Sequestrum Forceps.
- 1 Pair Bone Gouging Forceps.
- 3 Steel Sounds.
- 1 Screw Handle for same.
- 3 Silver-plated Catheters.
- 1 Bone Chisel.
- 1 Bone Gouge.
- 1 Sayre's Periosteotome.
- 1 Tiemann & Co.'s Bullet Forceps.
- 1 Polypus Forceps, straight.
- 1 Lithotomy Director.
- 1 Coil Silver Wire.

Needles, Silk, Plastic Pins, Wax, etc.

Rosewood Case, brass-bound, leather cover......\$75 00

	AMPUTATING AND GENE	ΞF	RAL OPERATING CASES.
	Fig. 909. Mott's G	en	eral Operating Set.
1	Mott's Knife, large.		Curved Bistoury, sharp-pointed.
	Mott's Knife, medium.		Curved Bistoury, probe-pointed.
	Small Catlin.		Steel Director.
	Capital Saw.		Silver Probes.
	Metacarpal Saw.		Pair Polypus Forceps.
	Tourniquet.		Pair Scissors, straight.
	Tenaculum.		Pair Scissors, angular curved.
	Pair Artery Forceps, plain.		Mott's Retractors.
1	Pair Artery Forceps, spring-catch,		Finger Knife.
	plain.		Scalpels.
	Tiemann & Co.'s Bullet Forceps.		Double Hook.
	Liston's Bone Forceps, best.		Hey's Saw.
1	Galt's Trephine and Handle.		Trocar and Canula.
I	Trephining Elevator and Raspatory.	N	eedles, Silk, Plastic Pins, Wax, etc.
1	Tenotome.		
	Rosewood Case, lined with	oil	-dyed velvet\$54 00
	Fig. 910. Markoe's		
I	Liston's Knife, Long.		Elevator and Raspatory.
	Liston's Knife, medium.		Pair Artery Forceps, plain.
	Liston's Knife, small.		Pair Artery Forceps, spring-catch,
	Straight Bistoury.		fenestrated.
	Curved Bistoury.	т	Pair Vulsellum Forceps.
	Curved Bistoury Probe.		Pair Toe-Nail Forceps.
	Hernia Knife.		Capital Saw.
			Galt's Trephine.
	Scalpels.		
	Tenotome.		Pair Parker's Retractors.
	Tenaculum.		Pair Liston's Bone Forceps.
	Aneurism Needle.		Bone Gouge.
	Tourniquet.		Silver Male Catheter.
	Chisel.		Steel Sound.
	Metacarpal Saw.	n	leedles, Silk, Plastic Pins, Wax, etc.
I	Hey's Saw.		
	Rosewood Case, lined with ve		
	Fig. 911. California		eneral Operating Set.
I	Capital Saw.		Curved Bistoury, probe-pointed.
I	Amputating Knife, long.		Curved Bistoury, sharp-pointed.
1	Amputating Knife, medium.	3	Scalpels, assorted sizes.
I	Small Catling.		Tenotomy Knife.
	Scalpel.	I	Aneurism Needle.
	Elevator and Raspatory.	I	Pair Polypus Forceps.
	Pair Artery Forceps, spring catch,		Hey's Saw.
	plain.		Metacarpal Saw.
т	Pair Artery Forceps, slide-catch,		Pair Dissecting Scissors.
5	bulbous points.		Double Hook.
T	Tourniquet.		Green's Tonsil Bistoury.
			Probang.
	Trocar, straight.		
	Tongue Depressor, japanned.		Catheter, German silver, plated.
	Pair Liston's Bone Forceps.		Metal Bougie.
	Galt's Trephine and Handle.		Pair Tiemann & Co.'s Bullet Forceps.
	Steel Director.	1,	Veedles, Silk, Plastic Pins, Wax, etc.
	Straight Bistoury.		

Mahogany Case, lined with oil-dyed velvet \$50 00

1 Steel Director. 1 Straight Bistoury.

Fig. 912.—Buck's General Operating Set.

Fig. 912.—Buck's G	eneral Operating Set.
I Liston's long Knife, hip and thigh. I Liston's medium Knife, leg and arm. Metacarpal Knife, large. I Straight Bistoury, ferruled handled. Curved Bistoury, sharp point. Curved Bistoury, probe point. Hernia Bistoury. Tenotome. Scalpels, assorted sizes. Tenaculum. Pair Crampton's Artery Needles. Double-pronged Hook. Beer's Cataract Knife. Desmarre's Scarifying Knife. Straight-Eye Needle. Curved Eye Needle. Gouge and Spud for removing foreign bodies from the Eye. Folding Probang, with silver Bucket. Long Bullet Probe, German silver. Nelaton's Bullet Probe. Pair German Silver Retractors. Double Silver Trachea Tube. Curved Rongeur, with spring. Ferguson's Bone-Holding Forceps, Lion Jaw. Pair Liston's Bone Forceps. Pair Sequestra or Toe-Nail Forceps. Small, straight Trocar and Canula. Ferguson's Bone-Holding Forceps, crowbill. Rectum Trocar and Canula, curved. Gouges. Chisels.	I Buck's Hernia Director. I Capital Saw. I Chain Saw, best. I Trephine and Handle. I Metacarpal Saw, movable back. I Finger Saw, narrow blade. I Lithotomy Staffs. I Steel Bougies. I Syme's Staff. I Buck's Sponge-holder. I German Silver Eye Speculum. I Œdema Glottis Instrument. Coils silver suture Wire. Coils Iron Wire. Silver Probes. Serrefins. Needles, Silk, Plastic Pins, Wax, etc.
Mahogany or Rosewood Case, brass be withsilk velvet, neatly arranged, proof	
Fig. 913.—Detmold's	General Operating Set.
	48 50
	General Operating Set.
	Compact Operating Set.
Fig. 916.—Blackman's Blackman's General Operating Set	General Operating Set.
Trephining Set	Trephining Set

Fig	. 918	-Post's	General	Op	erating	Set.
			200		***	

- I Granger's Sponge Holder, gilt. 1 Pair Dressing Forceps. 1 Pair Polypus Forceps. Pair Strabismus Forceps. Pair Strabismus Scissors. Set Mott's Aneurism Needles. 1 Pair Angular Scissors, heavy.
- I Kramer's Ear Speculum, best steel and German silver.
- 1 Pair Liston's Bone Forceps, larger than usual.
- 1 Female Catheter, silver.
- 1 Metacarpal Saw.
- 6 English Gum Elastic Catheters.
- 1 Medium-sized Trocar and Canula. r Probang, with Silver Bucket
- 1 Nelaton's Probe. 1 Pair Cilia Forceps.
- 1 Sharp-pointed Curved Bistoury, with 1 Tiemann & Co.'s Bullet Forceps Ferrule.
- 1 Finger Bistoury.
- 3 Scalpels, assorted sizes.
- Tenaculum.
- Trephining Scalpel and Raspatory.
- 1 Long Amputating Knife.
- 1 Blunt Hook.
- 2 Coils Silver Wire and Silk.
- 1 Metal Bullet Probe.
- 1 Pair Uvula Scissors, with Claws.

- 1 Galt's Trephine. 1 Bone Trephine. 1 Trephine Handle. 1 Ebony Gorget.
- 1 Pair Coxeter's Forceps. 1 Pair Dressing Scissors. Trephining Elevator.
- 1 Pair Spring catch Artery Forceps, plain
- 1 Rongeur.
- I Double Trachea Tube, silver. Pair Eutropium Forceps.
- 1 Silver Catheter, No. 9.
- I Hey's Saw.
- 1 Pair Mott's Retractors.
- Japanned Tongue Depressor.
- 1 Rectum Trocar.
- Pair Sequestrum Forceps, toe nail.
- 1 Wire Eye Speculum.
- I Lachrymal Needle.
- I Tenotome.
- r Probe-pointed Bistoury.
- 1 Straight and 1 Curved Eye Needle.
- I Beer's Cataract Knife.
- 1 Medium-sized Amputating Knife.
- 2 Silver Probes.
- I Director.
- 1 Pair Vulsellum Forceps,
- 12 Suture Needles, Silk, Wax, Plastic Pins. Rosewood Case, brass-bound, lined with silk velvet, one patent-leather cover,

Fig. 919.—Sharp & Smith's Operating Set.

- 1 Capital Saw. 1 Catling, long.
- 1 Liston's Medium Knife.
- 1 Elevator and Raspatory. Scalpels.
- 1 Straight Bistoury.
- I Tenotome. 1 Probe Bistoury.
- 1 Sharp-curved Bistoury.
- 1 Tenaculum.
- 1 Aneurism Needle.

- 1 Tourniquet.
- 1 Ivory Exploring Needle.
- 1 Vulsellum Forceps.
- 1 Pair Curved Scissors.
- 1 Pair Straight Scissors.
- I Galt's Trephine.
- 1 Movable Back Saw.
- 1 Hev's Saw.
- 1 Liston's Bone Forceps.
- Pair Spring-catch Artery Forceps. Needles, Silk, Plastic Pins, Wax, etc.

Brass bound Rosewood Case.....\$33 75

Fig. 920.-Bone Exsecting Set.

- I Chain Saw, best.
- 2 Chisels, different sizes.
- 2 Gouges, different sizes.
- with spring.
- 1 Pair Liston's Bone Forceps, large.
- 1 Set Brainard's Bone Drills.
- I Bone Trephine and Handle.
- 1 Pair Mott's Retractors.
- 3 Coils Silver Wire.
- 1 Pair Bone Forceps, angular.
- 1 Curved Rongeur or Gouge Forceps, 1 Pair Ferguson's Lion Jaw Bone-holding Forceps.
 - 1 Lead Mallet.
 - 1 Metacarpal and Interosseous Saw,

Fig. 920.-Bone Exsecting Set-Continued.

		8.)							
	ir Sec	and Raspatory. Juestrum Forceps. Jahogany Case, lin		Need	les, Silk, I	Plastic Pin	s, Wire	e, etc.	
"	921 922	Wood's General C Hamilton's " Conant's Amputati	perating	g Set				75	00
		MINOR	OPE	RATII	NG CAS	ES.			
Fig.	95° 951 952	Hospital Minor Conant's " Sharp & Smith's	"	"				\$56 26 24	25
"	953 *954		"	"	"		No. 2 No. 3	15	00 25
	955 956 957	Otis' Erskine Mason's Frank Rockwell's	"	"	"	••••••		33	75

Fig. 950.-Hospital Minor Operating Set.

Fig. 951.-Conant's Minor Operating Case.

I Pair Small, fine Bone Forceps; I Pair Van Buren's Scissors; I Chisel; I Combination Catheter; I Set Mott's Aneurism Needles; I G. S. Director; I Pair Silver Probes; I Pair Needle Forceps, slide catch; I Pair Parker's Retractors; I Scalpel; I Finger Knife; 2 Bistouries; I Hernia Knife; I Double Hook; I Amputating Knife and Saw, to screw into one handle; Needles and Silk. Put up in a mahogany, brass bound case, 8 inches long, 3½ inches wide, 134 inches deep, outside measurements.

Price..... \$26 00

Fig. 952.—Sharp & Smith's Minor Operating Case No. 1.

- Double Hook.

 Curved Sharp-pointed Bistoury.

 Curved Probe-Pointed Bistoury.

 Cooper's Hernia Knife.
- 4 Scalpels, assorted.
- 1 Pair small Polypus Forceps.
- I Tenotome.
- Tenaculum.
 Aneurism Needle.

- 1 Narrow Metacarpal Saw.
- 1 Pair Plain Artery Forceps.
- 1 Small Trocar.
- 1 Pair angular Scissors.
- 1 Pair Slide-catch Artery Forceps.
- 6 Needles, Silk, Iron and Silver Wire.
- 1 Steel Director.
- 2 Silver Probes.

In morocco case, lined with oil-dyed velvet \$24 00

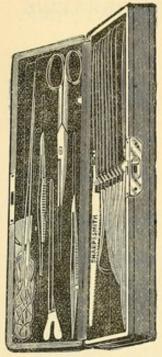


Fig. 953. Sharp & Smith's Minor Operating Case No. 2.

- 1 Metacarpal Saw.
- 2 Scalpels.
- 1 Sharp Point Bistoury.
- 1 Probe Point Bistoury.
- I Tenotome.
- 1 French Finger Knife.
- 1 Plain Artery Forcep.
- I Tenaculum.
- 1 Bulldog Artery Forcep.
- 1 Pair Scissors.
- 1 Director and Tongue Tie.
- 1 Aneurism Needle.
- 2 Long Silver Probes.

Twelve needles, all in a neat morocco covered case, very compact...... \$15 00

This is the same case that is contained in our general operating cases, and parties purchasing it from us may at any future time buy the balance of the operating set, thus completing the case without loss.

*Fig. 954. Sharp & Smith's Minor Operating Case No. 3.

- 2 Scalpels.
- 1 Straight Sharp Bistoury.
- 1 Curved Sharp Bistoury.
- 1 Hernia Knife.
- 1 Tenaculum.
- 1 Metacarpal Saw.
- I G. S. Director.
- 1 Pair Silver Probes.
- I Pair Straight Scissors.
- Pair Thumb Forceps.

Needles and Silk.

-	954		up in a fine	moroc	со	case		 	\$1	I	25	
956.	Otis' Minor Op Dr. Erskine M Dr. Frank Roo	ason's Min	or Operating	g Case.				 			33	75
		Contents o	of cases furni	shed on	app	plicat	tion					

*958.	Diameter of	Cushion	20	inches	4	00
*959.	"	"	24	66	5	00
*060	"	66	1.4	66		00



These Cushions are made with an inflatable rim at the top, to prevent the escape of the fluid upon the bedding or clothing, and by the opening and apron this fluid is conducted down into a bucket, placed to receive the same.

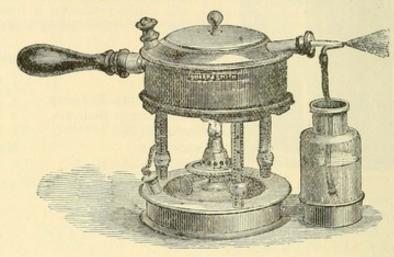
The rubber, unlike other Cushions on the market, has a velvety softness that makes them very comfortable to the patient; the color is a clear tan, and they are made with the greatest care to give them durability. They are being largely used in obstetrical, permeal, cervical and general surgical operations, especially where cleanliness and convenience are desired.

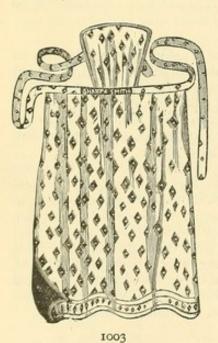
AMPUTATING, GENERAL, AND MINOR OPERATING INSTRUMENTS.

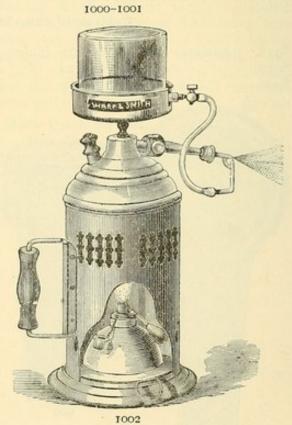
ANTISEPTIC GOODS .- See Index.

# 1001 # 1002	Atomizers—Wier's Antiseptic, small \$12 60 <
*1003-B	Small Iodoform Duster



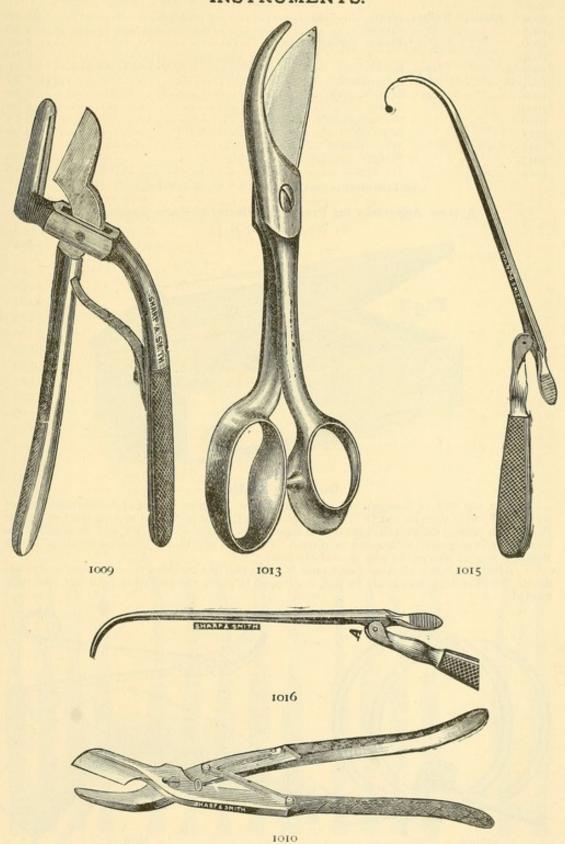






Instruments designated by a # are illustrated.

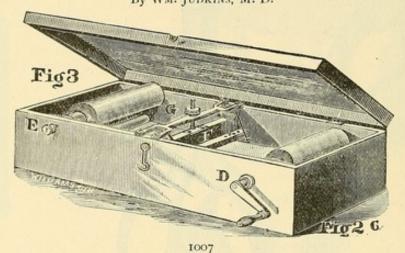
AMPUTATING, GENERAL AND MINOR OPERATING INSTRUMENTS.



AMPUTATING, GENERAL AND MINOR OPERATING INSTRUMENTS.

FIG.				
1004.	Bandage	Rollers,	, plain\$1 o	
1005.	**	**	Crocker's 4 5	
1006.	**	16	Plaster Paris, Greene's 4 0	0
*1007.	4.4	11	" " Judkin's 6 o	K
*1007-A		Clamp,	Esmarch's 1 2	
1007-B	***	"	Langenbeck's I 2	
1008.	11	Shears,	Braun's 7 5	
*1009.	- 66	44	Sayres' 5 0	
1010.	- 16		Szymanowsky's 6 7	5
TOIT.	44	6.4	Esmarch's 4 5	
*IOI2.	**	61	Wackerhagen's 4 5	
*1013.	44	4.6	Wright's 5 5	
1014.	44	- 6	Henry's 3 5	
		A1	I Instruments designated by a * are illustrated	

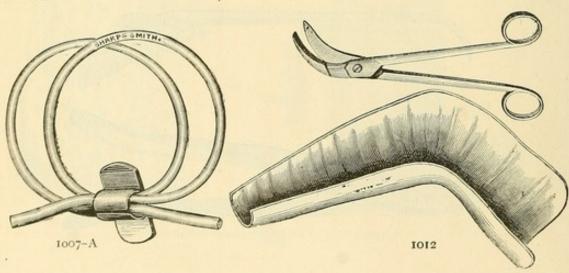
A New Apparatus for Preparing Plaster-of-Paris Bandages. By WM. JUDKINS, M. D.



Run the end of Bandage on rod E under the bar near bottom of box through gate of regulator F, and fasten on rod D. Place the plaster in the box at G, and turning the handle, the Bandage in passing through the gate has all superfluous plaster scraped off and its meshes are thoroughly impregnated with a coat of plaster. By means of a thumb screw on regulator F, the Bandage may be charged of any desired thickness.

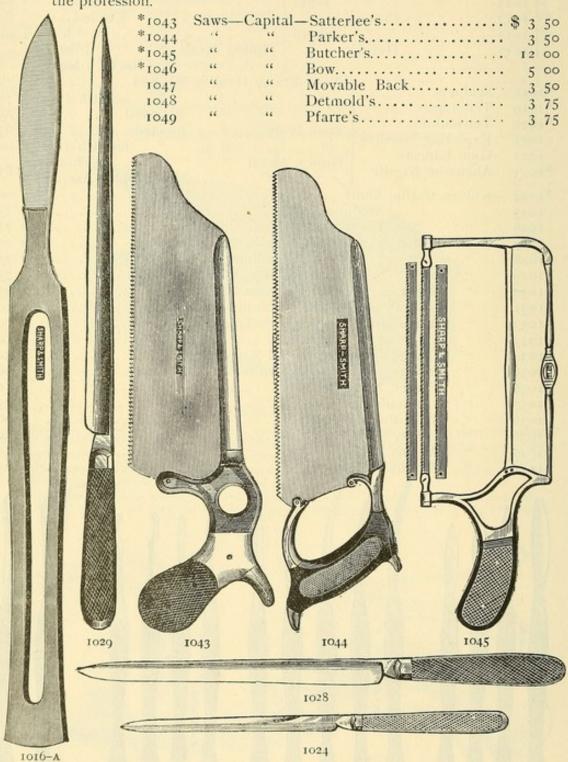
After Bandage is all wound on Crank D give same two or three reverse turns and with

After Bandage is all wound on Crank D give same two or three reverse turns and withdraw. The Bandage, now ready for use, is wrapped in paper and put away in a tin box until wanted.



AMPUTATING, GENERAL AND MINOR OPERATING INSTRUMENTS.
*1015 Bone Staffs, Prince's
*1016 " " Blandin's 2 25
*1016-A Metal Fenestrated Knives, very light and thoroughly aseptic 85
(Plain Ebony Handle, Riveted 50
[1017 Bistouries, Straight, Sharp " " " Ch'd. 75
1017 " " Blunt " " Ferruled 85
* 1017 " Curved " Plain Ivory " Riveted 85
1017 " " Sharp " " " " Ch'd. 1 00
1017 " Hernia Hollow Metal " (Thar)
" " Minor Opt. Asep. (85
(Plain Fhony Handle Riveted 50
Toto Scalpels " " " and Ch'd ""
1019 Tenotomes " " Ferruled 95
1020 Tenaculums Plain Ivory " Piveted 95
1021 Exploring Needles " " " and Ch'd 1 00
1022 Gum Lancets Hollow Metal " (Thor)
*1023 Aneurism Needle " " Minor Opt. Asep. 85
*1024 Knives, Catlin, Short 2 00
1025 " " Medium 2 25
1026 " " Large 2 75
" Liston's Amputating, Short, Hand and Foot 2 00
*1028 " " Medium, Leg and Arm 2 25
*1029 " " Large, Hip and Thigh 2 75
1030 " Brain 1 25
1031 " Liston's with Parker Handles 4 00
1032 " Amputating, Wood's Circular 3 00
1033 " " Mott's
1034 " Conant's One Knife and Saw 5 50
*1035 " (see 1053), Conant's Two Knives and Saw 7 00
1036 " Finger, Long, French 1 50
1037 " Lenticular 1 25
1038 " Valentine's Section 6 00
1039 " Heavy Cartilage 1 50
1040 " Adams' Subcutaneous
1041 " Wright's Folding 4 25
HAINE - TOIS - 1019 1020 1023

SAWS.



All instruments designated by a * are illustrated.

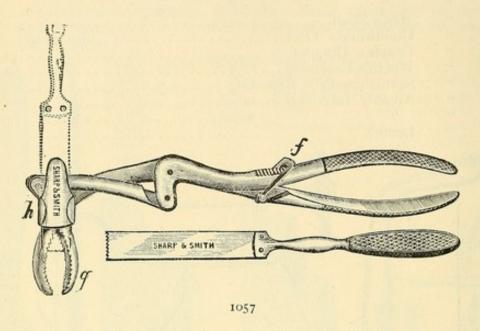
SAWS. FIG. *1050 Saws-*1051 4 50 Conant's and Knife, 1 blade saw..... 1052 5 50 66 *1053 2 7 00 *1054 66 Hey's Skull.... 1 30 Goodwillie's Oral.....\$2 50 to 1055 3 75 1056 15 00 *1057 Wyeth's Exsecting..... 15 00 Szymanowsky's Exsecting 1058 15 00 Adam's Interosseous, large..... 1059 3 20 *1060 small..... 2 40 *1061 Lente's 1050 1051 1046 1060

All instruments designated by a * are illustrated.

1063

SAWS.

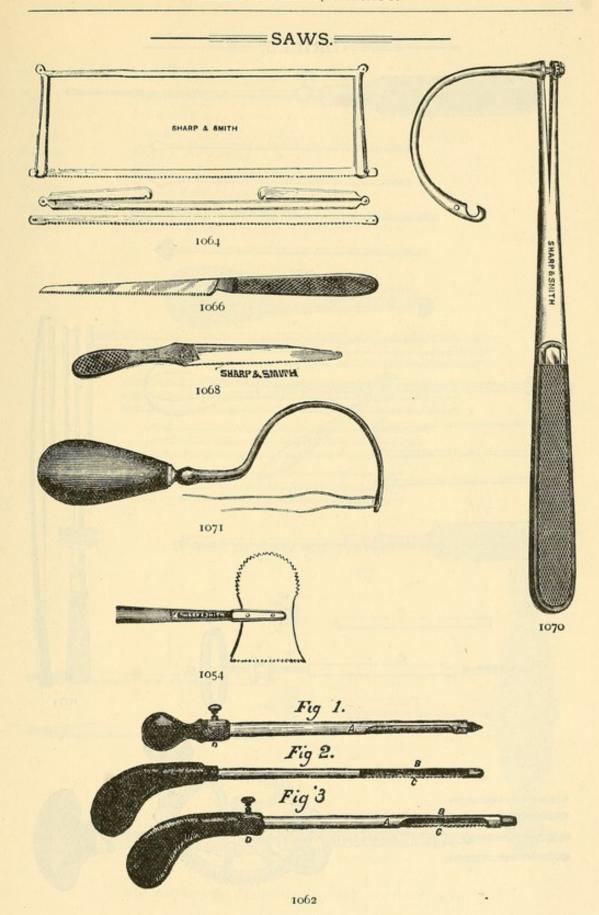
Dr. Jno. Wyeth's New Instrument for Exsections.

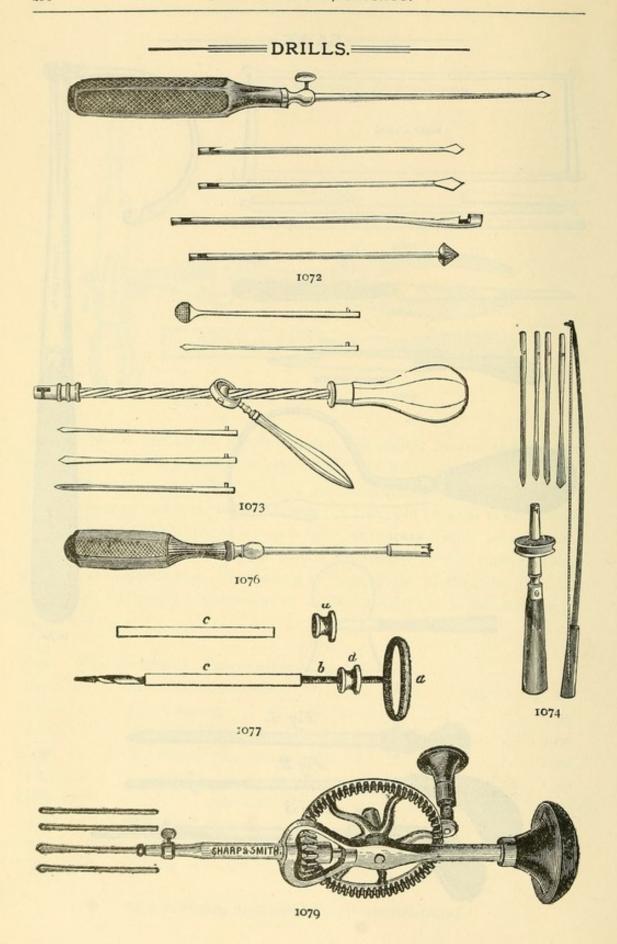


The above instrument has been used successfully in exsections of the humerus and shoulder joint, the elbow joint, the hip joint, cutting through both trochanters with perfect facility, the radius, the metatarsus, and the acromion process and spine of the scapula. It can also be used in exsections of small bones closely related to each other, as the metacarpal bones. The handles work with a double-jointed motion, and have a fixation clamp, f, like the Russian needle holder. By opening or closing the handles, the jaws, g, are separated or closed. The action of the rotating shield, h, and the saw, l, are the same.

FIG.				
*1062	Saws-	-Schrady's-Subcutaneous Saw and Knife	\$ 5	25
1063		Hunter's Plastic Saw	2	00
*1064	44	Lewis folding	1	85
1065	66	Tiemann & Co.'s Circular	9	00
*1066	44	Metacarpal, plain handle	1	00
1067	- 44	" Ivory "	1	50
*1068	- "	" Movable Back \$1 75 to	3	50
1069	"	Maxilla R. & Leach.	1	30
*1070		Post's Chain Saw Carrier	4	00
*1071	"	Buck's " " "	2	00

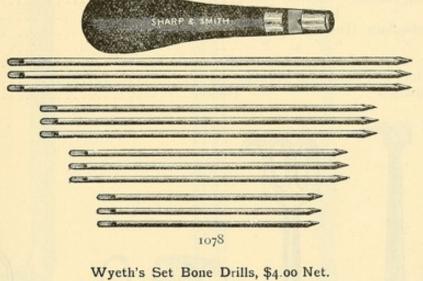
All instruments designated by a * are illustrated.

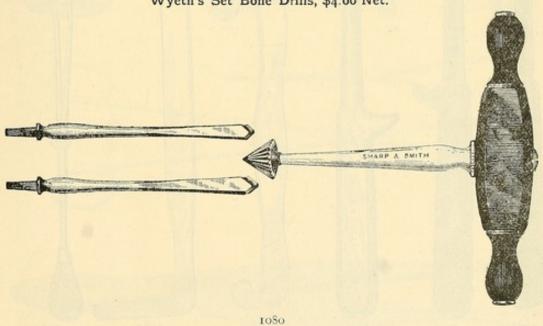




DRILLS.

*1072	Drills-	Brainard's, set 5 and handleset \$	2	65
*1073	**	Hamilton's	5	25
*1074	**	Howard's	5	25
1075	-66	Gunn's	2	50
*1076	44	Pope's Antrum	2	60
*1077	- 66	Gaillard's, for ununited fractures	2	50
*1078	66	Wyeth's set	4	00
*1079	"	Tiemann's Drill Stock	5	25
*1080	44	Buck's Drills for the mastoid process	3	75





All instruments designated by a * are illustrated.

FIG		RETRACT	ORS AND	HOOKS.			
1081	Retractors	-Volkman's		6	ach. \$	2	25
*1082	"					I	10
*1083	"				"	I	10
*1084	66				66	2	25
1085	"				66	2	60
*1086	"			blunt	"	4	50
*1087	"		0		"	4	50
*1088	"	" "	" 3 "1	olunt, angle on flat	"	4	50
*1089	46	Gerster's			"	3	70
1090	"	" Mo	diffied by Dr. M	I. Spicker, with lo	nger		
		G W 110	nandle and lon	ger bladeper	pair.	3	70
*1091	"		trated				85
*1092			it Fenestra				85
*1093				• • • • • • • • • • • • • • • • • • • •			85
*1094	Langenbed	ck's Double Ho	OK				00
	37 - 1 11	Levator and	H00K				30
1095	Vulsellum	Hooks, 2 pron	g	• • • • • • • • • • • • • • • • • • • •			10
1096	Tononilum	" 3 "	inulation				30
*1097	Prince's T	encoulum Force	ne ne	• • • • • • • • • • • • • • • • • • • •			25
1098 *1099	Mastin's	" " "	Double				50
1099	Mastins		Double			2	25
SHARPA SMITH	SHARF'& SMITH	SHARP & SMITH	SHARP-SHITH	The state of the s			
1087	1088	1086	1082	1083	108	4	

All instruments designated by a * are illustrated.

RETRACTORS AND HOOKS.

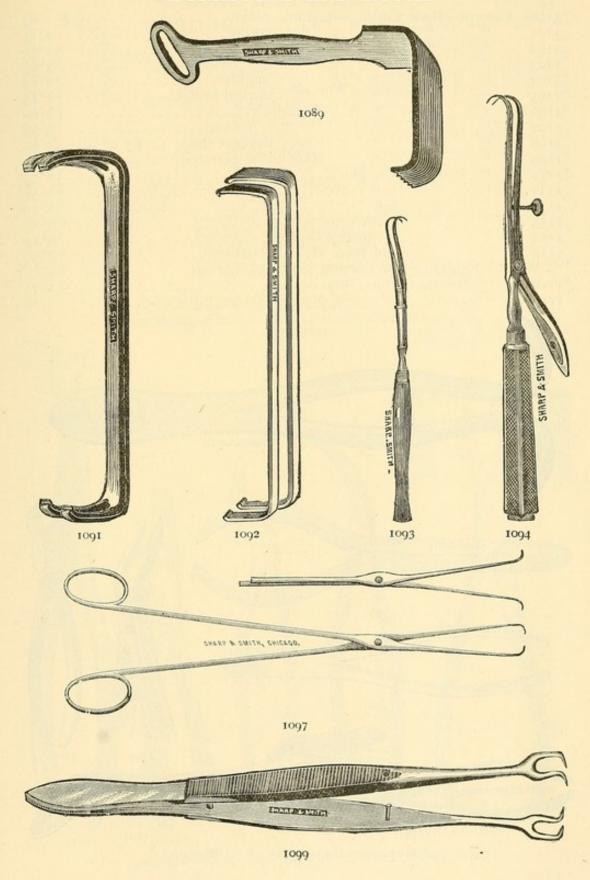


FIG.			BONE INSTRUMENTS.	
*1100	Forcens-	_Bone	Cutting—Liston's, plain §	1 85
1101	"	-100110	" spring	2 25
1102	44	44	" large	2 50
1103	44	"	" with spring	3 00
*1104	"	44	" angular	2 25
*1105	44	"	" curved or flat	2 25
*1106	"	"	" Satterlee's	2 00
1107	"	"	" curved	3 25
1108	66	44	" Isaacs' Bayonet shape \$3 00 to	5 00
*1109		"	" Hamilton's Serrated	9 00
*1110	" R	-	, straight	2 50
IIII	"	"	half curvedfull "	2 50
1112	"	"		2 50
1113		**	Little's, for pocket	3 00
1114	44	**	and Bone Holder, Darby's	3 00
W	veth's Exs	secting	Forceps and Saw, see page 294.	3 00
*1116	" N	eedle C	Cutting, Stimson's	2 75
1117	66	"	" and Needle Holder, Little's	4 00
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11				
E.		and the same	WAR STANDARD TO THE STANDARD T	
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			o MAA	ema .
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		- Andrews	SHARP & SMITH	
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			1109	
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	SHARP	-SMITH		P
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Carrie Carrie	SHARP	-SMITH		
and .	SHARP	-SMITH	1116	
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and the same of th	SHARP	-SMITH	1116	
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	SHARP	SMITH		106
	SHARP	SMITH	1100	
SHARP	SHARP-		1100	
SHARP			1100	

All instruments designated by a * are illustrated.

1104

1110

BONE INSTRUMENTS. FIG. Forceps, Toe Nail, Post's..... *1118 Trephining and Sequestrum, Van Buren's 1119 Sequestrum, Markoe's curved..... *1120 Hamilton's *1121 Ferguson's, with spring..... 1122 Van Buren's..... *1123 Poor's angular..... 1224 *1125 Gross' plain 1126 with hinged spring..... 3 25 1127 Bone Holding-Ferguson's Lion Jaw..... *1128 " -- Darby's..... 3 00 1129 Gnawing, curved and straight, each..... 46 1130 *1131 Farabeuf's (Osteopher)..... Holding Hamilton's, (Osteopher)..... 3 00 44 *1132 Gnawing, curved and straight, each..... 1133 SHARP & SMITH 1121 500

All instruments designated by a * are illustrated.

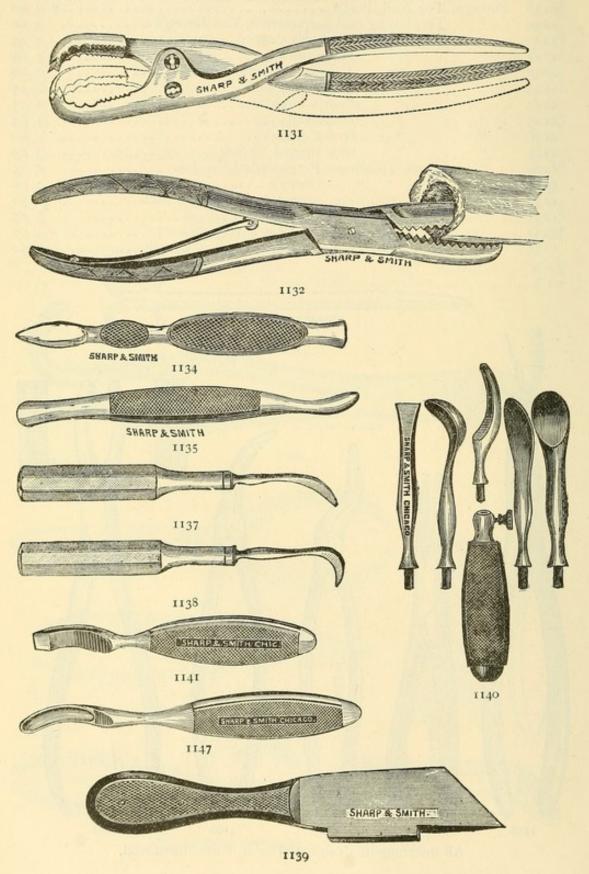
1123

1118

1125

1120

BONE INSTRUMENTS.



	BONE INSTRUMENTS.	
	134 Sands' Periosteotome	
	135 Sayre's "	I 75 I 50
	136 Poore's "	1 50
*11	137 Goodwillie's Periosteotome, Levator, half curved	1 50
	138 " " full "	1 50
	139 Linhardt's Knife Chisel	1 50
	140 Darby's set of Chisels and Gouges	5 00
	141 Szymanowsky's Chisel	2 00
	Hand Chisel, curved (like Fig. 1142)	I 25 I 50
*11	144 Plain " "	85
	145 " " large	1 00
*11	146 Macewen's curved, 3 sizes, each	2 25
*11		2 00
*11		1 25
*11		85
*11	144	I 00 I 85
	146 Charriere's Bone Scraper	1 75
*11	147 Fine Ebony Handle Bone Scraper	1 50
	148 " Steel pointed " "	1 85
*11	149 Marshall's Osteotrite, Olive Head	1 85
*11		1 85
II		5 75
*11		1 00
	Trephining	75 1 50
*11		1 85
	All instruments designated by a * are illustrated.	A
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MACEWEN'S CHISELS AND OSTEOTOMES.

Dr. Wm. Macewen ("Osteotomy") says: The instruments used by me are of two different kinds, the chisel and the osteotome. The former being of the same form as the carpenters'—though different in temper, the latter being sharpened like an attenuated double inclined plane.

The chisel is used for paring, shaving and cutting out of bone, such as a

cuneiform portion of the tibia in anterior curvature.

The osteotome is used only for making simple incisions or wedge-shaped openings without removal of bone.

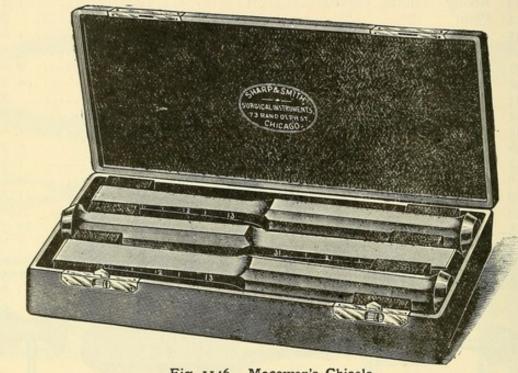


Fig. 1146. Macewen's Chisels.

The blade of the chisel has two parallel sides extending as far as the cutting edge. The cutting surface has one side straight, the other beveled. It ought not to be too thick, otherwise the bone will splinter. For most purposes an eighth of an inch at the base of the bevel is suitable. The breadth of the finstrument varies according to the size of the bone. Half an inch broad is iound very suitable in the majority of cases; but for narrow fibulæ a quarter of an inch is better. The breadth ought always to be less than that of the bone to be divided, otherwise the soft tissues on either side would be cut. Though the form of the instrument is similar to many employed by the carpenter, yet the temper and quality are quite different. A chisel tempered so as to cut wood, such as a carpenter's, would not be suitable to cut bone. On the other hand, the instrument employed by the iron cutter (dresser) would be equally faulty in thickness and temper. The bone would be apt to turn the edge of the former, while the latter would be apt to splinter it. The nearest approach of the requisite temper will be found in the tools of the hard wood or ivory turner; but it is best to get the chisel tempered to suit bone, and its quality may be easily tested on the thighbone of an ox. The osseous surface left by a sharp chisel ought to be quite smooth. This instrument is used for cutting a wedge and removing it out of the bone. For the purpose of making a simple osteotomy, or in order to have a wedge-shaped opening in the bone, without removal of any osseous substance, an osteotome is employed.

The Surgical Needle of Dr. Hagedorn, of Magdeburg.

The curved surgical needles at present in general use have a stem, the section of which forms either a section or an oval. The needle, at the inner side of its curve, is flattened to a broad double edge, terminating in a point. The edge is transverse to the curve of the needle.

A puncture made with such a needle is parallel with the direction of the wound, as shown in cut, a, a. On tying the suture the stitch-wound forms a gap, as shown, b, b, which frequently causes small fistulas, and will not always

heal by first intention.

In the Hagedorn needle the section of the stem forms an oblong parallelogram. It is of equal length and thickness throughout its entire length from eye to point, and is curved in its axis, with its short cutting edge on its convex side near the point. The length of the cutting edge is about twice or thrice the width of the needle. The needle for intestinal sutures, however, makes an exception, its point being round.

The Advantages Claimed by this New Kind of Needle are:

 Being curved on the edge, they are more resistant, the point following the intended direction of puncture without deviation.

 The eye can be made larger and tapering at the terminal end, so that even a stout double thread will pass through the puncture without difficulty.

 Owing to its equal thickness the needle can be firmly and safely grasped at any The cutting edge being on the convex side, cannot be blunted by the needle holder.

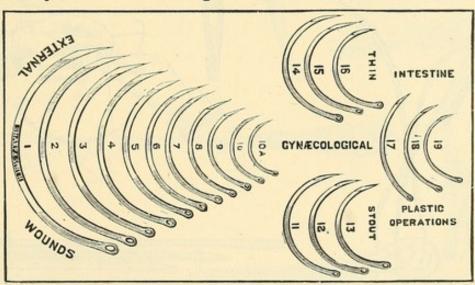
5. The incision made by the needle is in a right angle to the edge of the wound (see c. c.) The two edges of the stitch wound, on tying the suture, are drawn into close apposition, whereby their union is favored (see d, d).

The flat needles cause less injury, especially in sutures of nerves and tendons.

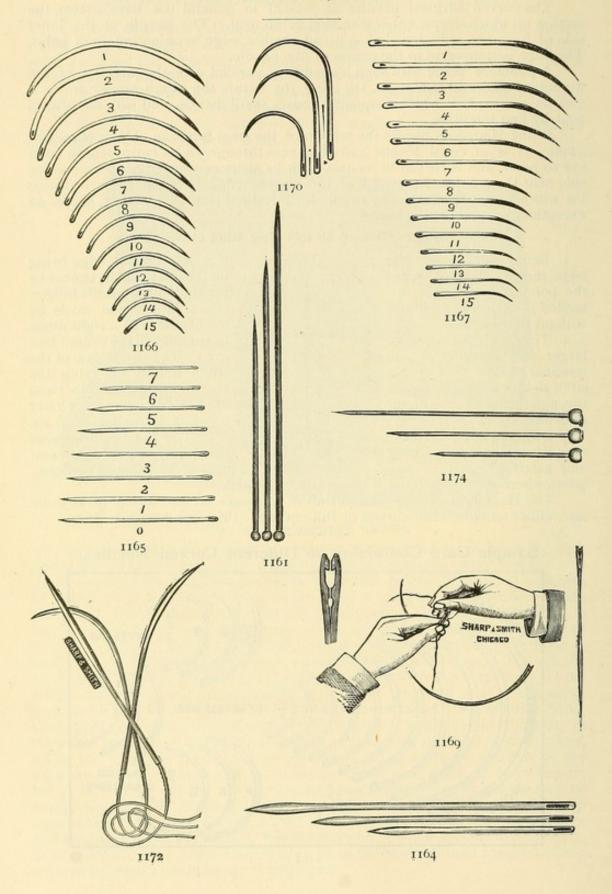
point, whereby its direction will be greatly facilitated.

The Hagedorn Needles are put up in packages of one dozen of any one size, either straight, semi-curved or full-curved. Price per package, \$1.25.

Sample Card Containing 20 Different Curved Needles.



NEEDLES, Etc.



NEEDLES, PINS, Etc.

	NEEDLES, TINS, Etc.		
FIG.	Buelde Din Carrier		
1156	Buck's Pin Carrier	1	50
1157	" " Silver Canulaeach		15
1158	Plastic " lance point"		35
1160	Acupressure Pins, lance pointper doz.		50
*1161	Buck's " 1 to 2 inch"		05
*1162	" " 2½ " " "		10
*1163	" " 3 "		15
*1164	Hair-lip Needles "	т	25
*1165	Needles-Ordinary Surgeons, Straight "	•	60
*1166	" Curved"		60
*1167	" Half curved"		60
*1168	" Hagedorn's "	1	25
*1169	" Self Threading "	I	25
*1170	" For Mouth"	I	20
1171	" For Silver Wireeach.		10
*1172	" In which Silver Wire can be screwed "		35
1173	" Acupressure, Simpson's "		20
*1174	" with Glass Heads "		10
1175	" Acupuncture " " " "		10
	gatures all kinds, see index.		
*1176	Langenbeck's Serresfins, steel		50
1177	" " curved		75
*1178	" can be taken apart to be cleaned	1	15
*1179	Serresfin's Silver Wire, straight		20
*1180	" " curved		20
*1181	Hoff's, set with handle, used to approximate the edges of wounds		
	while passing sutures	4	25
1182	Tucker's Wire Cutter	4	00
*1183	Milne's Compressor	1	10
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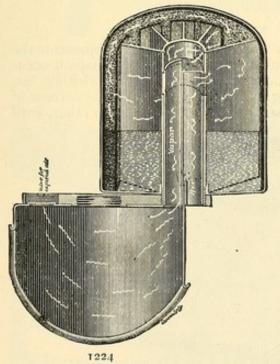
TOURNIQUETS, TREPHINES, Etc. FIG. *1184 Galt's Trephine, Conical.....\$ " Cylindrical..... 1185 Crown Trephine 1156 3 25 Guarded "Trephine Handle, Horn..... 1187 %IISS 60 1189 15 1190 Necrosis...... 2 75 1191 Tirefond or bone screw..... 1.85 1192 Trepan for the hand..... 1193 1 85 Esmarch's Tourniquet, complete, with 3 yards web. Chain, only. *1194 2 60 1195 1196 Chain and strap..... 1197 1198 Tiemann's I 50 *1199 Pettit's Spiral Cushing's Field " 1200 50 American " 46 1201 Mott's Spiral 1202 I 50 .. 1203 May's II 00 1204 Gross' Prussian 1205 60 *1206 Charriere's Skey's 1207 SHARP & SMITH, CHI. 1188 1184 1206 1194 1199

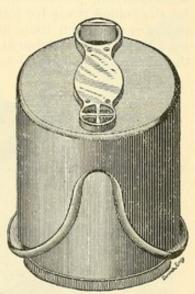
All instruments designated by a * are illustrated.

		ETH	ER	INH	ALI	ERS						
FIG.	Matter's Ether	Inhalere									ero	00
1214		44									-	
1215	Trucis											50
1216	Adams' "										5	00
1217	Squibbs' "	"									1	75
1218	Spier's George,	Ether In	haler								2	75
1219	Morton's	44	66								3	75
1220	Junker's	"	**								9	50
1221	Chisholm's	"						for	poo	eket	. I	90
1222	Cheatham's	**	66								2	75
*1223	Noyes'	"	66								6	00
*1224	Young's Combin	ned Anæ	stheti	c Car	and	Inha	ler (Chlore	oforn	n oi	t	
	Ether)										7	00
Th	is instrument is											ept
	tly filled ready f											-
*1225	Esmarch's Chlor	roform In	nhalei	r wit	h Ma	sk					2	50
	Esmarch's Chlor	roform I	Dropp	er							I	50
1227	Lente's											50
	For	other kir										

Young's Combined Anæsthetic Can and Inhaler. (Chloroform or Ether.)

SAFE, EFFICIENT, ECONOMICAL, CONVENIENT AND CLEANLY. IS SMALL ENOUGH TO CARRY IN THE POCKET, AND MAY BE KEPT CONSTANTLY FILLED READY FOR USE. FITS PERFECTLY ANY FORM OF FACE. LIQUID CANNOT RUN OUT WHILE USING IN ANY POSITION.





1224

The instrument may be taken apart by unscrewing the head from the can, the packing here being a soft string, wound around a number of times underneath the head.

This inhaler is especially adapted for obstetric practice, the patient being recommended to hold it herself; she drops it when she reaches the stage of muscular relaxation.

A FOLDING ALLIS' ETHER INHALER.

By George R. Fowler, M. D., Brooklyn, N. Y.

Extract from "The Medical Record," July 2d, 1887.

Although many surgeons still prefer the ordinary folded napkin or improvised cone method of administering ether, yet there can be no doubt as to the advantages to be derived from the use of a specially devised apparatus like the Allis' inhaler. It is open to the objection, though to a less extent than other instruments of its class, of being somewhat cumbersome when carried about, and of occupying, therefore, considerable space in the operating satchel. I have therefore endeavored to overcome this objectionable feature by slightly altering the shape of the inhaler in such a manner as to allow of its being folded flatwise. The

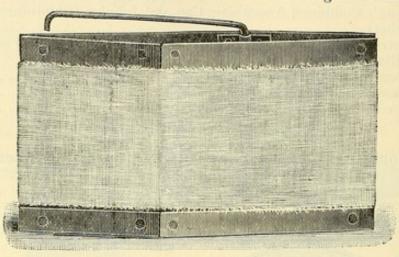


Fig. 1210. No. 1.

accompanying cuts will show how this is accomplished. Fig. 1 represents the inhaler folded ready for placing in the pocket or satchel, in which shape it occupies about as much room in the pocket or satchel as an ordinary visiting list. By a very simple movement, provided for by bringing together the corners of the metal sides, the two long sides are made to separate from each other, until

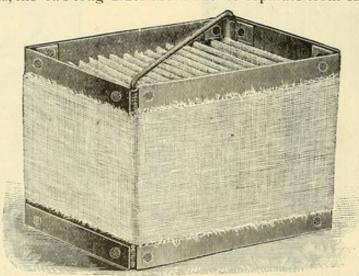


Fig. 1210. No 2.

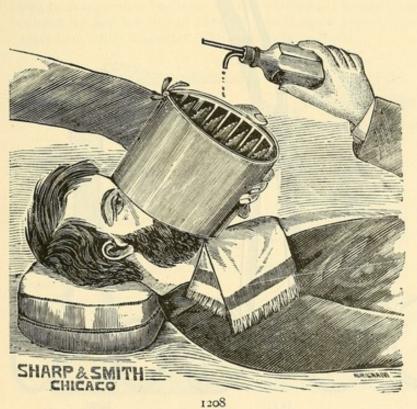
the shape shown by Fig. 2 is formed, in which position it is securely held by a little bar which swings over from one corner to the one diagonally opposite, and fastened, by its bent extremity, into a socket provided for the purpose.

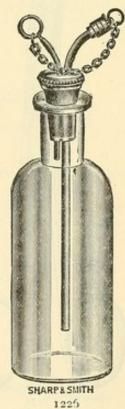
ETHER INHALERS.

*1208	Allis Ether Inhaler, Rubber Cover	\$3	00
1209	" " Leather "	3	00
*1210	Fowler's Modification of Allis' Ether Inhaler	4	00
1211	Waterford's Ether Inhaler	2	50
*1212	Lente's Ether Inhaler	2	60
1213	Hutchinson's Ether Inhaler	3	50









	SCISSORS	, FORCEPS,	SPONGE	HOLDERS.	
*1228 1229 *1230 1231 *1232 1233 1234 *1235 1236 *1237 1238 1239 *1240 *1241 *1242	Gays Scissors and Forcep Scissors—Operating """ """ """ """ """ """ """ """ """ "	s combined , large, straight medium, " small, " large, curved medium, " small, " angular, small medium	escription page 3	13).	1 25 3 00 1 50 1 00 1 50 1 25 1 00 85 1 00 1 50 1 50
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A NEW ANTISEPTIC SCISSORS AND FORCEPS LOCK.

By CHARLES NOAH DIXON JONES, M. D., Surgeon to the Woman's Hospital, Brooklyn.

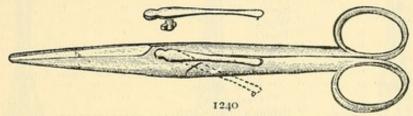
The objections to the ordinary separable or antiseptic lock are four: 1. It is easily broken off by careless manipulation. 2. It is not always easily cleaned. 3. In a few weeks the blades work loose, so that they do not close accurately. 4. Each time the blades of the scissors are ground the pivot must be shortened.

The new forceps lock which I introduced a few weeks ago (see "New York Medical Journal," Feb. 11, p. 151) is not entirely free from some of these objections.

1. The blades of the forceps or scissors are liable to become separated, during the progress of an operation, and cause annoyance and loss of time.

2. The pivot in time works loose.

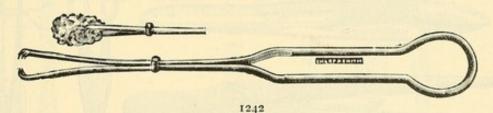
3. It is very difficult to grind the blades of the scissors accurately, owing to the projecting arm.



In order to overcome these difficulties, I have constructed a lock after the following pattern. The pivot is attached to a spring lever, so that the scissors or forceps consist of three separate pieces, which can be easily adjusted. The blades are plain, with only an opening in each to receive the pivot, so that they can easily be ground or cleaned. The scissors are put together as follows: The blades are placed together, and the pivot is passed through the opening in each blade, and then sprung around into place.

The spring lever always serves to keep the cutting edges in apposition, and to compensate for wear of the surfaces. When properly closed the blades cannot by any amount ot careless handling or rough manipulation become sep-

arated or twisted apart. The cut explains itself.



We call the attention of the profession to an easily cleaned and perfectly

aseptic sponge holder.

The instrument is nine inches long and made out of a single piece of steel wire, nickel plated. The blades are brought together by an incomplete ring of steel, which can be readily slipped off, thus permitting the instrument to be thoroughly cleaned.

The cut represents the instrument so clearly that further explanation is

unnecessary.

The advantages that are claimed for this instrument are:

1. That it is easily cleaned, hence thoroughly aseptic.

2. That it is light, strong and durable.

3. That it is cheap.

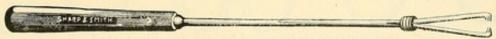


FIG.				
*1243	Forceps	. Artery	and Tissue, Cleborne's Spring Catch	2 50
1244	"	"	Ligature	1 85
*1245	11	11	Hunter's Slide Catch	I 85
*1246		"	Langenbeck's Slide Catch	I 10
1247	**	"	Milne's	I IO
1248	"	"	Shield's Self Grasping	I 50
*1249		"	Andrews' Slide Catch	2 00
*1250		"	Bigelow's, with slide	2 75
1251	**	64	Lankford's " "	1 50
1252	**	44	Fricke's " "	I 80
1254	11	11	Dugas' " "	1 15
*1255	- 44	- 66	Maclean's Spring Catch	I 25
1256	44	**	Phelps' Torsion Spring Catch	3 00
1257	"	**	Wight's Spring Catch	1 90
*1258			atic Artery, Little's, French Lock and Snap Catch	2 50
*1259	**		" Lawson Tait's " " " " " " " " " " " " " " " " " " "	2 00
*1260	44		Spencer wens	2 00
*1261		44	44 TO 1 44 44 44 44 44	I 50
*1263	**	**	" Heart Shape, French Lock and Snap Catch	I 25 2 00
1264		**	" "Long Blade " " " " "	I 75
1265	**	**	" "T" shape, French Lock and Snap Catch	2 50
1266	"	**	" " Olive shape, " " " " " "	3 00
1267		"	" " Oval shape, " " " "	3 00
1268	"	"	" Sabine's Snap Catch	2 00
1269		**	"Thomas' " "	1 85
1270		"	Wynes	1 50
1271	44	-	" Gerster's	I 75 I 85
*1272	- 11	**	" Dr. Charles N. D. Jones', with Collins' New Lock (see	1 05
12/3			description)	2 50
*1274	Forceps	. Artery,	Hewson's Torsion	6 00
*1275	"	"	Wells' Bow Torsion	1 85
1276	**	"	Tilleaux' Torsion	3 75
*1277	16	T 11	Cliquet's, for Retracted Arteries in Stumps	2 75
*1278	44	Duval's	Tri blade, for dressing small wounds	2 00
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Instruments designated by a * are illustrated.

1249

HÆMOSTATIC FORCEPS. SHARPASHITH

ARTERY FORCEPS.

			_				
*1279	Forcens	Artery plain	(thumb)				\$ 40
*1280	"						I 50
1281	44	11 11	Slide				I 75
*1282		" Slide C					1 80
*1283	**						I 00
*1284	**						2 00
1285	**	,,	**	44 44			2 00
1286	**		on's Fenes	trated			1 75
*1287	Liston's						I 25
1288	**	44 44		Plain			
1289	Coxeter'	s Artery Ford					
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				signated by a			

ARTERY FORCEPS.

FIG.													
*1280	Forceps,	Allis'	Acupressure,	straigl	ht		 	 		 	 .8	I	25
*1281	"	"		curve	l		 	 	 	 	 	1	25
*1282		**		66			 	 				I	25
*1282A	66	"	"	44			 	 				1	75
*1283	44	"	Suture				 	 				1	25
*1284	"	66	Acupressure	Scissor	Handle	:	 	 				2	25
*1285	66	66	"	44.	"		 	 		 		2	25
*1286	44	66	Suture	66	"		 	 	 	 		2	25

(Extract from "Medical News," September 1st, 1883.)

ACUPRESSURE FORCEPS.

An Instrument for the Instantaneous Arrest of Hemorrhage during Surgical Operations.

By OSCAR H. ALLIS, M. D.,

Surgeon to the Presbyterian Hospital; Lecturer on Orthopædic Surgery and Joint Diseases in the Post Graduate Course at Jefferson Medical College; Surgeon to the Jefferson Medical College Hospital.

Under this heading I wish to introduce an instrument to the medical profession that I have devised for the arrest of hemorrhage. It consists of two blades, Fig. 1282, under the command of a spring, the lower of which is a needle, and designed to transfix bleeding tissues, which done, the grasp of the hand is released, and compression is instantly effected between the blunt blade which lies upon the surface of the bleeding vessels and the needle which lies beneath them.

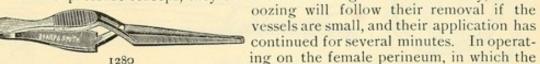


1282

Its special application is where hemorrhage takes place simultaneously from many bleeding vessels. Few surgeons have not felt the need of a certain and instantaneous hæmostatic in operations in which the tourniquet cannot be used, or after the tourniquet has been removed. In the latter case, though the main vessels have been ligated, the hemorrhage is often so great from numerous small bleeding points, and the usual means of arrest and ligation so tardy, that fatal collapse has not infrequently resulted.

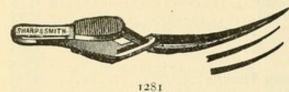
It is for this class of cases that the acupressure forceps have been devised. Beneath a bleeding area the needle is thrust, and the spring, instantly denoting that the hemorrhage has been arrested, leaves the operator to turn his attention to another point of danger. Thus half a dozen instruments will be found as efficient and much more transparent than a corps of assistants—not getting in the operator's way, and maintaining a silent but effective grip until the ligature may be applied, and the instruments one by one removed. In the surgical clinics of medical colleges, in hospitals, in active military service, and in the private practice of those surgeons who cannot command adequate assistance, this instrument will, I believe, be found of great service.

As acupressure forceps, they often render the ligature unnecessary, for no



ligature is to be avoided, this instrument, especially No. 1280, will do excellent work.

ARTERY FORCEPS.



Four varieties and nine sizes are made. One, in which both blades are needles—a suggestion of Dr. Reen, as represented by Fig. 1281. Nos. 1282 and 1280 will be found most generally No. 1280 or a larger size, useful.

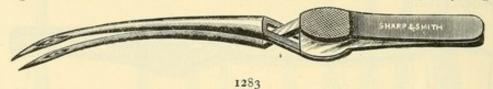
will be found effectual in deep wounds, as in lithotomy. For plastic operations upon the face a small size is made (Fig. 1282). There are three sizes of No. 1280, three of No. 1282—the largest of which is fully eight inches long.

Although each instrument may be used not only as a hæmostatic, but also as a tenaculum, yet the two designed especially as tenacula are represented in 1282A and 1282B. For this purpose I have found the large size (Fig. 1282B)

> to work admirably. In using the instruments, a quick, firm thrust is necessary, but this manœuvre can easily be acquired on the coat sleeve.

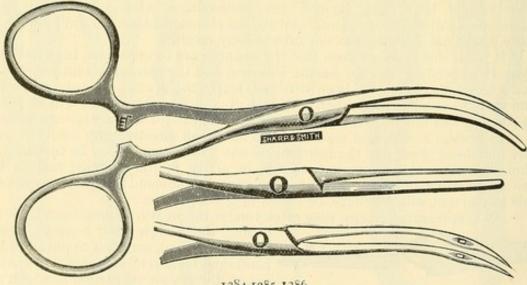
> My preference (if I could have but one variety) is for No. 1280. Were I ordering a dozen I should take three of No. 1280, three of No. 1282, two of each a size larger, one of No. 1282B, and one of mammoth No. 1282. No. 1282-B is not necessary if an ordinary tenaculum is at hand, but I believe that those having No. 1282-B will set the old tenaculum aside.

Figure 1282-B is not shown in cut; it is the same as 1282-A, only larger.



SUTURE FORCEPS.

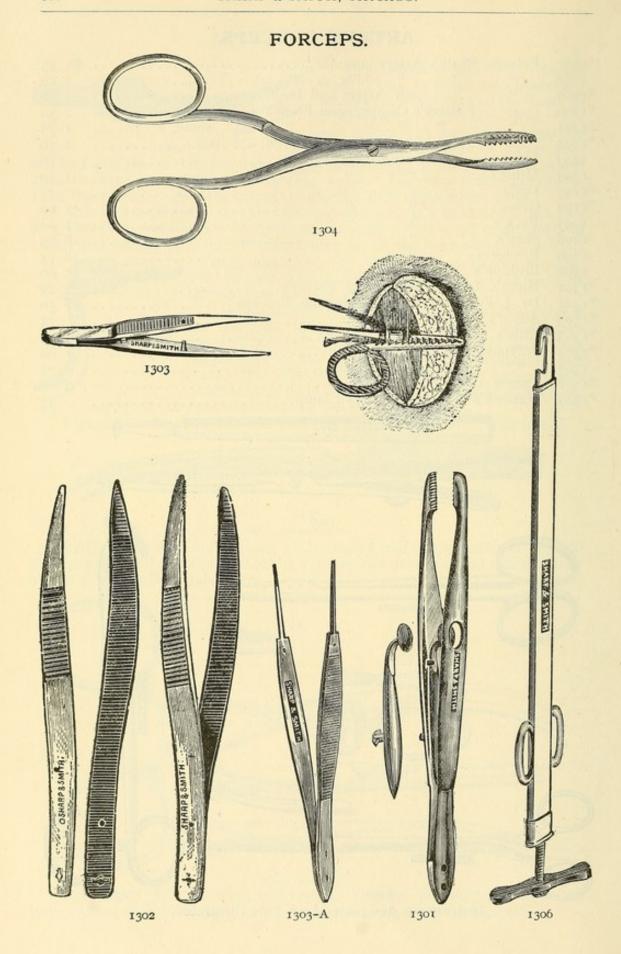
I have given these instruments a satisfactory trial in the Jefferson Medical College clinic and hospital, and in the Presbyterian Hospital, and feel that they have a useful future before them.



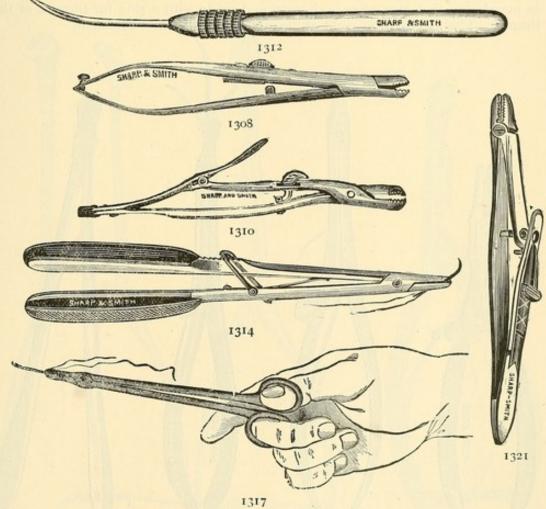
1284-1285-1286

The above Allis' Forceps with Scissor Handles are supposed to be an improvement on the old style, and at present seem to be in fair demand.

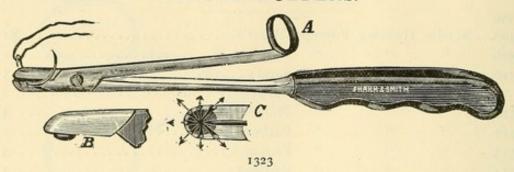
	ARTERY FORCEPS.		
*1287	Forceps, Pratt's Artery, angular	\$1	75
1288	" " long	2	50
*1289	" new Artery and tissue		50
*1200	" Fænger's Compression French Lock, large 8 inches	2	50
1291	" " small, 6 "	1	75
*1292	" " curved, 9½ inch	2	50
1293	Langenbeck's Artery Compressor	-	50
1294	Milne's " "	1	
*1295	Levis' " "		25
*1296	Gross' " "	2	60
1297	Buck's " "		00
1298	Skey's " "		00
1299	Erichson's " "	0	75
1300	Briddon's " "\$22 50 to		00
*1301	Hahn's Artery Compressing Forceps		25
*1302	Dr. J. Frank's (Chicago) Dressing Forceps	1	0.000
*1303	Adam's Splinter Forceps		75
*1303A	Little's " "		75
*1304	Polypus Dressing " plain	I	00
1305	" " catch	I	25
*1306	Spier's Artery Constrictor	3	00
*1307	Mattock's Key Ring Artery Clamp		35
	SHARP & SMITH		
	1206		
	1296		
	1296		
6	1296		
(1296		
	1296 SHARPASMITH		
	SHARP 4 SMITH		
	SHARPASMITH 1287		
	SHARPASMITH 1287 SHARPASMITH SHARPASMITH		
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	SHARP & SMITH 1287 1307 1292		
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	SHARP & SMITH 1287 1307 1292		



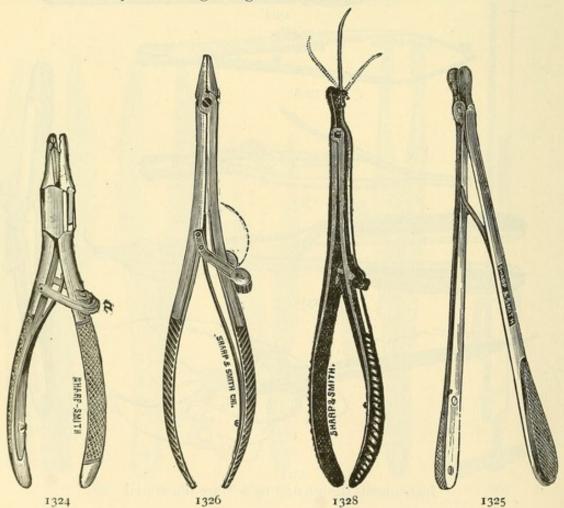
1309. " " " Physic's " (see index.)" and Artery Combined Fenestrated 1311. " " Philadelphia 1312. " " Parker's 1313. " " Fritche's 1314. " " Russian 1315. " " " Imp. 1316. " " Stimson's (See Fig. 3512, page 609.) 1317. " " Sim's plain 1319. " " with catch 1320. " " Wyeth's 1321. " " Whitney's	FIG. 308.	Needle	Holding	Forcer	s, Prout's\$2	(
" (see index.)" and Artery Combined Fenestrated " (see index.)" and Artery Combined Fenestrated Philadelphia " Parker's " Fritche's. " Russian " " Imp. " " Imp. " Stimson's (See Fig. 3512, page 609.) " Sim's plain " " with catch " " Wyeth's " " Wyeth's " " Whitney's " " Whitney's						
" (see index.)" and Artery Combined Fenestrated Philadelphia " Parker's " Fritche's " Russian " " Imp. " " Stimson's (See Fig. 3512, page 609.) " Sim's plain " " with catch " " Wyeth's " " Whitney's " " Whitney's		44	**	"		
" " " " " " " " " " " " " " " " " " "	All .	"	" (see i	ndex.) "	and Artery Combined Fenestrated 2	
" " " " " " " " " " " " " " " " " " "	311.		"	"	Philadelphia 4	(
### Fritche's. ####################################	312.	**	"		Parker's	
" " " " " " " " " " " " " " " " " " "		cc	44	44	Fritche's 3	5
" " " " " " " " " " " " " " " " " " "	314.	- 66	"	66	Russian	(
" " " " " " " " " " " " " " " " " " "		"	44	**	" Imp	2
" Sim's plain		14	66	66		
" " with catch	317.	**	66	"		
" " " " " " " " " " " " " " " " " " "		**	"			
" Wyeth's	319.	"	66	"		
1321. " " Whitney's	320.	"	"	"		
	321.		66	"		
CHARG SCHIPT					transfermed agency and accompany accompany	
CHADO COMPH						
STATE ASSETT				-	SHARP ASMITH	

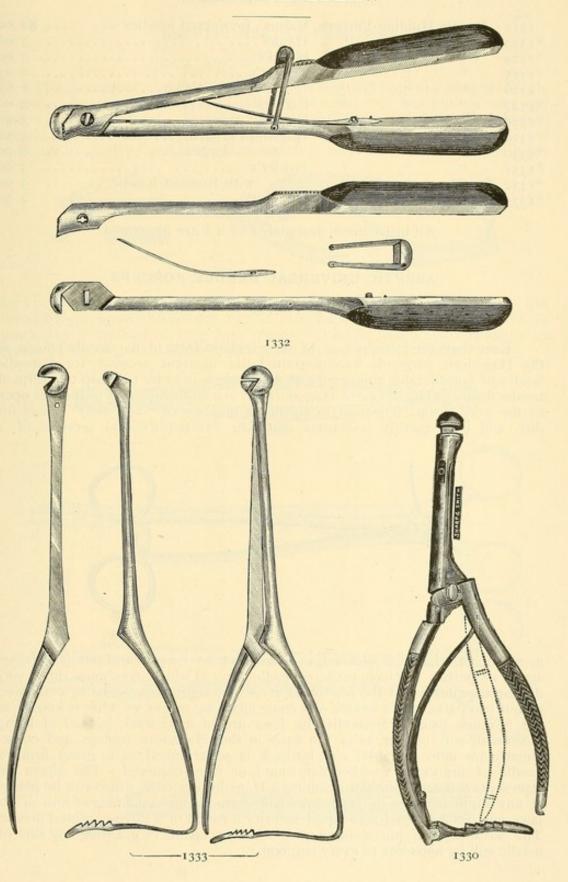


Instruments designated by a * are illustrated.



This needle-holder is constructed in such a manner as to hold at different angles a very large or very small, decidedly curved or absolutely straight Hagedorn or round needle. The principle of holding the different curved and shaped needles of this design consists in having the ends of the forceps for seizing the needle ground to fit each other like the ball and socket joint. The socket or lower end of the forceps is ground in grooves at three or four different angles to a point below the base of the socket. And thus the needle fits in either one of these several grooves and the ball end of the forceps presses directly upon the needle in the center of the socket, and holds it firmly. The parts are disjointing, one portion is long for the hand to grasp firmly or lightly, as may be needed, the other is shorter, and made with a ring for the end of the thumb. This is placed at right angles to the axis of the instrument.





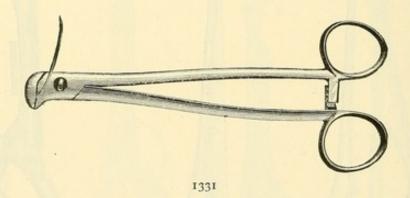
71G. 1322	Needle	Holding	Forceps.	Mathis', for curved needles	84	00
*1323	**	"	"	Hanks'		00
*1324	"	44	"	Heuel's		00
*1325	"	"	64	Emmet's	2	25
1326	44		"	" with Catch	2	65
*1327	44	- 11	44	Reiners'	3	00
*1328	"		- 44	French	3	50
1329	44	**	"	Hagedorn's, small	5	00
*1330	"	"	- 66	" large	6	00
*1331	**	"	**	Fowler's	3	00
*1332	"	"	44	" with Russian handle	5	00
*1333	"		"	Gibbons'	4	50

All instruments designated by a * are illustrated.

ASEPTIC UNIVERSAL NEEDLE FORCEPS.

By George R. Fowler, M. D., Brooklyn.

Ever since the introduction of the excellent form of flat needle known as the Hagedorn, surgeons have regretted the apparent necessity for a needle holder of considerable complexity of mechanism, in order to grasp this form of needle firmly. The device of Hagedorn for accomplishing this purpose is open to the very serious objection of having a number of "stow-away" places for dirt, and consequently infectious material. It requires the services of a

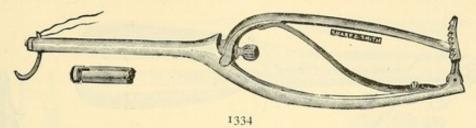


mechanician, when it is cleaned, in order to take it apart and put it together again properly. We have made, a needle forceps which combines three very desirable qualities. In the first place, it is thoroughly aseptic, being composed of but two parts, which unlock and come apart by means of what is known as the "French lock." Secondly, its jaws are of hard steel, instead of being faced with soft copper, as is the case in the Hagedorn forceps, and consequently are more durable; and, lastly, it is so arranged as to grasp firmly a needle of any shape, whether flat, round, or three-cornered. The above cut represents the needle-holder grasping a Hagedorn needle, which can be placed at any angle between its jaws. A shallow groove upon the face of one of its jaws enables it to hold with equal security a round or a three-cornered needle. The advantages of possessing a needle holder capable of grasping any sort of needle will be apparent to every surgeon.

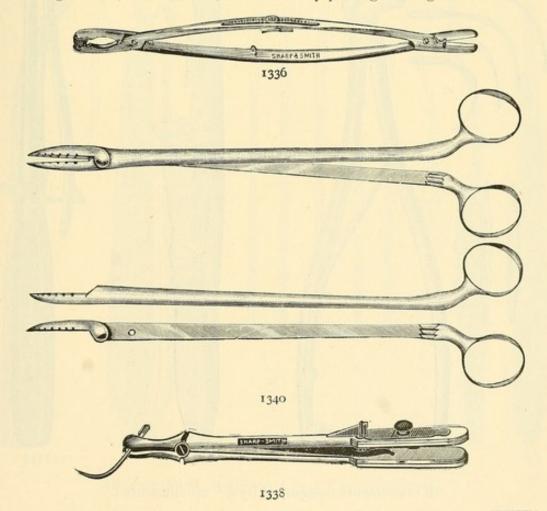
ASEPTIC NEEDLE FORCEPS.

By A. Ady, M. D., Muscatine, Iowa.

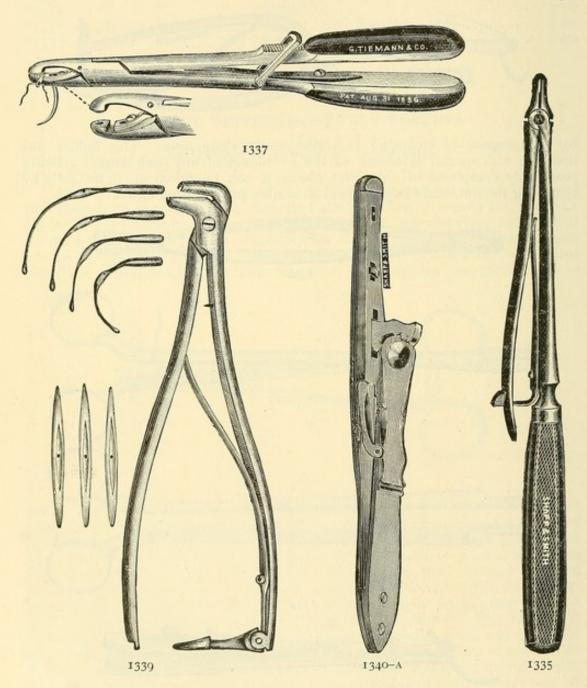
The instrument represented by the engraving will hold any kind of needle—round, flat, straight or curved—and hold it firmly. It has both a diagonal and a rectangular slot. In these days of antiseptics, all surgical appliances should be as free as possible from any danger of carrying septic material from one case to another; and any instrument that can not be readily taken apart



for the purpose of cleansing is consequently dangerous. This holder was invented with special reference to the avoidance of any such danger. Being practically composed of only four pieces, it can be taken apart instantly by removing the nut, and cleansed, and as readily put together again.



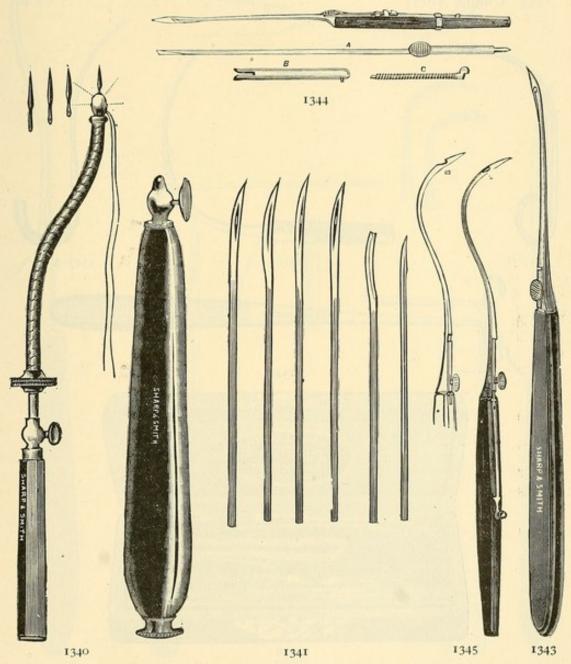
*1334	Needle	Holding	Forceps,	Ady's\$	7	50
*1335	44	"	"	Ethridge's		
*1336	44	44	"	Dr. A. J. Skenes	5	50
*1337	"	66	44	Tiemann & Co.'s Patent		75
*1338	44	66		Sharp & Smith's		50
*1339	"	66	46	Thiersch's & Spindles		50
*1340	66	"	- 44		200	00
*1340-A		"	"	Pocket Case, size of Hagedorn's	0	
				Needle Holder	6	50



All instruments designated by a * are illustrated.

ARTERY AND PERINEUM NEEDLES.

FIG.	
1340-B Bozeman's Needle Carrier\$	6 00
*1341 Parker's Needles, set of six in handle, handle serves as a case	
for the Needles	3 75
*1342 Agnew's Needle and Needle Holderset.	3 40
*1343 Rivedon's Perineum Needles in three different curves each.	3 50
*1344 Keyes' modification of Rivedon's Perineum Needle, straight	7 00
*1345 " " " curved	7 00
The Keyes Modification Needles can be taken apart and easily clea	ned,
and consequently are aseptic.	

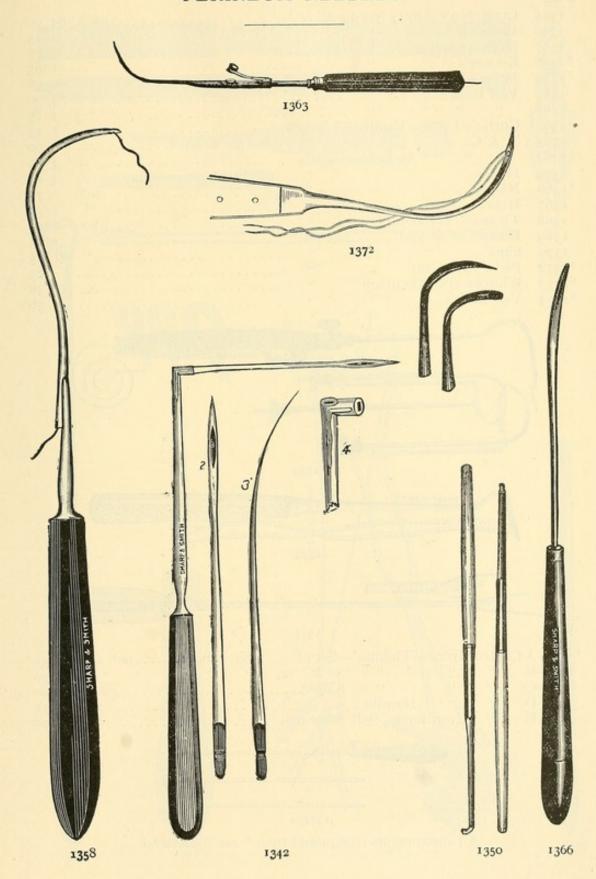


All instruments designated by a * are illustrated.

	PERINEUM NEEDLES.	
*1347 *1347-1	A Papine's Perineum Needle	1 50 65 75
*1348 1349 *1350 1351 1352	Sharp & Smith's Hollow Silver Wire Needles, with two Needles. """""""" three " Mott's Aneurism Needle	3 00 4 00 2 25 50 1 40
1353	Student's " Gunn's Artery "	2 25 2 60
CONTRACTOR OF THE PERSONS AND ADDRESS A		
O	Breezascone de la constanta de	
1347-	B 1346 1347-A	
	A. C.	
/	1347	
	SHARPASMITH	
	SURGICAL INSTRUMENTS. 73 RANDOLPH ST., CHICAGO	

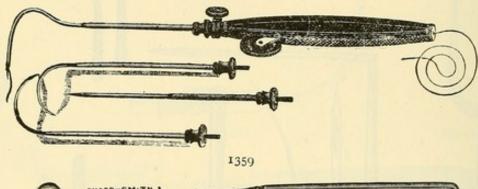
1348
All instruments designated by a * are illustrated.

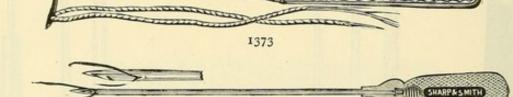
PERINEUM NEEDLES.



PERINEUM NEEDLES.

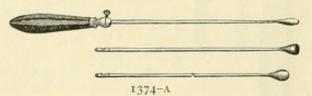
FIG.			
1355	Ciampton's Artery Needle R. & Leach.	\$4	00
1356	Parker's " "		25
1357	Stone's Canulated "		00
*1358	Emmet's " "		85
*1359	Pease's " "		00
1360	Van Brun's "set of 2	-	00
1361	" " " " 3		
* 1362	Currie's Double Canulated Needle		25
*1363	T. & Co.'s " for wire sutures	-	25
	4 4 4		00
1364	II-6'-	4	85
1365	110ft S	4	25
*1366	Nacvuseach		75
1367	Helical "	I	25
1368	Thomas' Perineum "doz.	I	oc
1369	Emmet's Cervical " "	I	15
1370	Sims' " " " " "	1	15
*1372	Plain Aneurism "		75
*1373	Whitehead's Aneurism "	1	30
*1374	Von Brun's " "	I	50
011		11	5





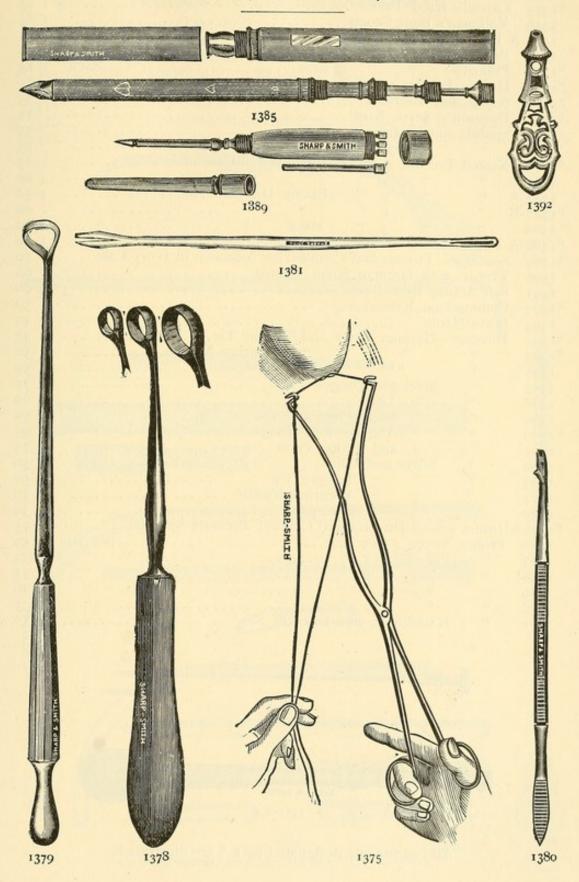
1374

		Irons	-Thomas'-	—Set of 3	, W	vith	handl	le	per set.	\$3	35
1374-B	"	66			,	44	66		"	4	50
1374-C	66	66	**	Single					each.	I	00
1374-D		"	Handle						"		75
1374-E	66	Iron	Lamp, Self	Blowing.					"	3	00

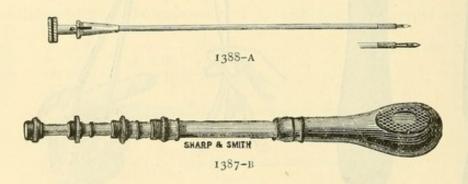


All instruments designated by a * are illustrated.

TROCARS, CURETTES, ETC.



*1375	Carroll	's Knot T	ver					0		85
1376										
	A Hebra									85
	Brunn's		46						I	85
1377	Piffard	9	"							50
*1378		3		3 Sizes.				each.	I	85
*1379										50
*1380									I	25
*1381										75
1383	Spatula									55
1384					D 7 G					55
*1385				t, Metal	Pencil Cas	se				85
1387	"	"	4.5		" "				4	00
1387-1	A "	"		Ebony	Handle.				3	50
*1387-1	В "	"	4 "	. 4	" .				4	00
1388	"	"	3 "	Metal	" .				3	50
*1388-1	A Explo	ring Tro	cars						1	00
*1389	Souther	y's Troca	rs and	Canulas	for Anasai	rca in Iv	ory Case		2	50
1390	Trocar,	with Ge	rman S	Silver Ca	nula				1	00
1391	Self Ac	ting Blov	v Pipe.						3	00
*1392	Commo	odone Ex	tractor						-	50
1393	Porte N	Meche								40
*1394	Directo	r-Germa	an Silve	er and T	ongue Tie					45
*1395	- "	46	66	"	Aneurism !	Needle				50
1396	"	- 44	- 61		Ear Spoor					50
1397	"	Steel a	nd Tor	igue Tie						75
1398	- 66									60
1399	44	"	Spear P	oint and	Tongue T	`ie				90
*1400	66	"	Ingular	and To	ongue Tie					90
1401	66				t					75
1402	"		and Ol						T	50
1403	16	"			ie					50
1404	- 66	- 66	" A	neurism	Needle					50
1405	66	"								50
#1405 A	Hunter'	s Steel D			nter Press				1	*
1406										75
	"	Plated,4						pan		50
1407	"	Silver,	6 6							35
	**	Silver,	8 4						-	75
1409	"	"	10 "							10
1410	"		10		r Cat					35
1411		riamiitoi	is, with	Directo	r Set				I	50



All instruments designated by a * are illustrated.

POCKET CASE INSTRUMENTS. FIG. Silver Caustic Holder..... For more complete line of Caustic Holders, see index. *1412 1412ACatheters, Plated, Male, I to 12 75 Silver, " I to 12.... Parker's Combined, with Caustic Holder, Silver..... I 50 1413 *1414 3 25 66 Plated.... I 75 1415 Combined Male and Female, Plated..... I 00 1416 *1417 Silver.... SHARPASMITH 1400 1395 1405-A SHARP-SMITH 1412 1417 1414

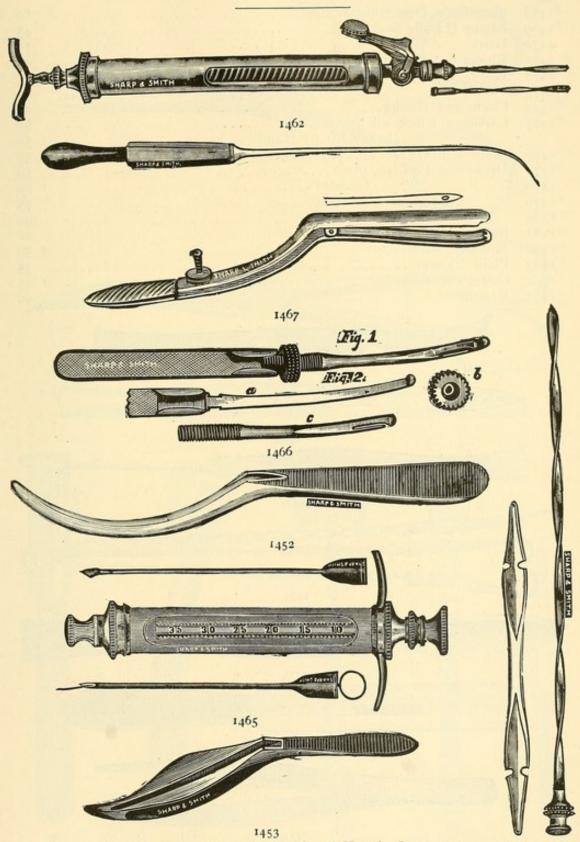
All instruments designated by a * are illustrated.

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419					• • • • • • • • • • • • • • • • • • • •		
420							50
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422			late	st		2	60
423		M C	loses	· · · · · · · · · · · · · · · ·		2	60
424		. Н	unn S			2	25
425		Darby	r's Forceps and	d Pullet Probe	Combined	1	75
426 427					Combined		60
128					eps Combined		85
429	Bullet For	cens P	russian	chaculum Torc		2	1000
430	" Ext	ractors.	Iones'	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	3	00
431	"	"	Moses'			2	60
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FIG.		BULLET INSTRUMENTS.
*1433	Bullet	Scoop, T. & Co.'s\$ 1 30
1434		Seeker, "Burr Head
1435	44	" "
1436	"	Screw " 1 50
*1437	Bullet	Probes, Sayre's Vertebrated Silver 6 00
1438	44	" Long Silver50c to 1 50
1439	44	" Lead 35
*1440	44	" Nelaton's, Porcelain Head 45
*1441	"	" Spiral (10 inches long) Porcelain Head 1 00
1442	44	" T. & Co.'s and Lint Introducer 60
1443	"	" Steele's Elastic 1 25
*1444	44	" Hamilton's Jointed, with Director and Porcelain
	Head	d 1 50
1445		Probes T. & Co.'s
1446	44	" Thomasin's
1447		" Dr. Jno. T. Darby's Probe and Bullet Forceps
* 0	Com	bined 3 00
*1448	Bullet	Probes, Girdner's Telephonic
		HERNIA INSTRUMENTS.
*1449		Knives, Cooper's Slide Catch\$ 1 10
*1450	**	" Stewart's\$ 3 75
1451	"	" Wood's 1 15
*1452	"	Director, Stanley's 1 85
*1453	"	" Peters' 2 00
*1454	"	" Levis' 1 10
1455	"	" Hinged 1 15
1456	"	" Curved 1 85
1457	"	" Buck's 1 50
1458	"	Needle, Dowell'seach. 75
*1459	"	Wallell S
1460	"	Woods 1 10
1461 *1462		Niggs 3 /3
1463	"	Syringe, Warren's
*1464	"	" De Garmo's
*1465	"	
*1466	Hernia	tome, Allis' 5 50
*1467		Instrument, Agnew's 4 75
1467		" Wutzer's 9 00
1467H		" Redfern-Davis' 11 25
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BULLET AND HERNIA INSTRUMENTS. 1448 1448 See "Supplement" for additional Hernia Instruments. 1441

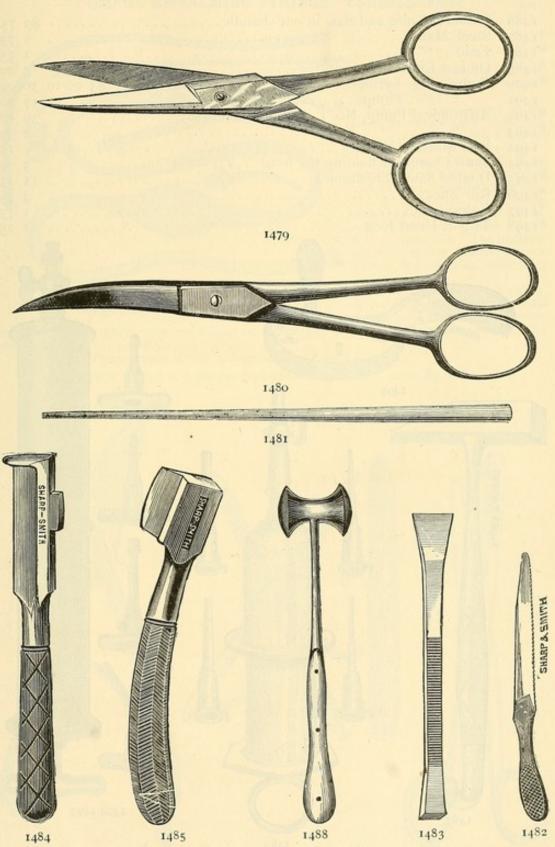
HERNIA INSTRUMENTS.



See "Supplement" for additional Hernia Instruments. 1454

	DISSECTING INSTRUMENTS AND CASES.		
*1468	Sherman's Dissecting Scalpel	8	60
*1469	Ebony Handle Scalpels	*	45
1470	Ivory " "		75
1471	Ebony " Tenacula		45
1472	Ivory " "		75
*1473	Metal " "		45
*1474	Chain and Hooksper set. Cartilage Knife, all Steel		25 60
*1475	" heavy Ebony Handle	I	50
*1476	Brain Knife		50
*1477	Dissecting Forceps, plain		50
1478	" Coxeter's	I	00
*1479	" Scissors, straight		75
*1480	" curved		90
*1481 *1482	Blowpipes		50
*1483	Plain Chisels		35
*1484	Costetome Chisels	I	15
*1485	Rachitome "		50
	CHINAGON III		
	SHARP & SMITCH!		
	1468		
		1	
<			
	SHARP AND SHITH		
-	1469		
		6	
6	REPORT OF THE PROPERTY OF THE		
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6	1474		
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THE REAL PROPERTY.		III	
1			
	1475		_
	14/3		
	SHARP-SMITH .		
	1476		
	Control of the Contro		
	1477		
	Instruments designated by a * are illustrated.		

DISSECTING AND POST MORTEM INSTRUMENTS.

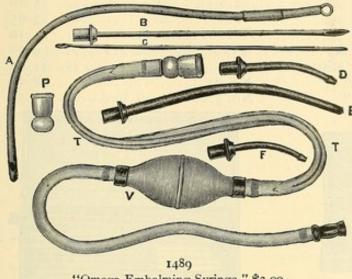


Instruments designated by a * are illustrated.

DI	SSECTING AND POST MORTEM INSTRUMENT	S.	
1486	Finnel's Knife and Saw in one handle	83	75
*1487	Steel Mallet	I	75
*1488	Lead "	1	75
*1489	Omega Embalming Syringe		00
*1490	Embalming Syringes\$3 00 to		00
1491	" Pump	17	00
*1492	Anatomical Pump, No. 1	30	00
*1493	" No. 2	22	
1494	Skull Clamp for holding the head		00
*1494	Double Saw (Rachitome)	11	25
*1496	Rib Shears		75
*1497	Enterotome		75
*1498	Tripod Head Rest		25
	1495 1495 1497 1497		

Instruments designated by a * are illustrated.

OMEGA EMBALMING SYRINGE. Continuous Flow.



"Omega Embalming Syringe," \$3.00.

This Syringe produces a continuous flow, and is especially adapted for embalmers.

It is the easiest syringe in the world to operate, never tiring the hand. It saves one-half the time usually required in embalming. The Patent Collapsible Tube

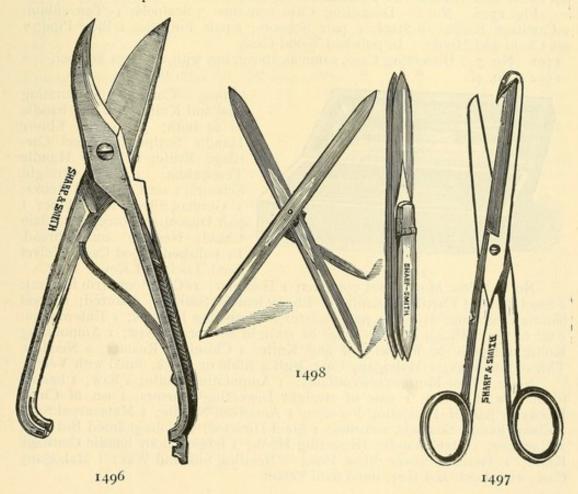
PREVENTS ANY BACK ACTION, return of fluid, or injection of air. IT OBVIATES ALL DANGER OF BURSTING AN ARTERY. It has no screw threads or washers therefore it cannot leak The injection tubes are quickly attached by our Patent Soft Rubber Slip Joint Socket.

ATTACHMENTS.— Hard rubber large and small curved arterial tubes; nickel plated long trocar;

long curved hard rubber tube for lungs, etc.; improved long flexible tube for stomach, etc.; plated clearing wire, patent flexible thimble.

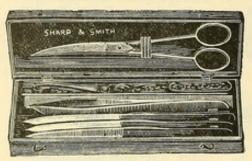
All parts and attachments of this Syringe can be obtained from us.

Price packed in handsome book-cloth case.....each \$3 00

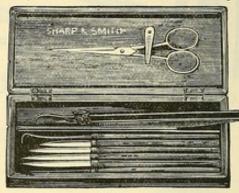


DISSECTING AND POST-MORTEM CASES.

Saves No a Dissertion Con-	
*1499 No. 1 Dissecting Case	 \$2 25
*1500 No. 2 " "	 3 20
1501 No. 3 " "	 3 65
1502 No. 4 " "	 4 10
*1503 Finnel's Post Mortem Set	 9 50
1504 Sharp & Smith's Fost Mortem Set, No. 1	 21 00
1505 " " No. 2	
1506 " " No. 3	 16 50





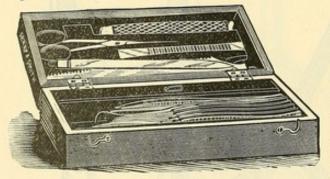


1500

Fig. 1499. No. 1. Dissecting Case, contains: 2 Scalpels; 1 Tenaculum; 1 Cartilage Knife, all Steel; 1 pair Scissors; 1 pair Forceps; 1 Blow Pipe; 1 set Chain and Hooks. In polished Wood Case.

Fig. 1500. No. 2. Dissecting Case contains: 3 Scalpels; 1 Tenaculum; 1 Cartilage Knife, all Steel; 1 pair Scissors; 1 pair Forceps: 1 Blow Pipe; 1 set Chain and Hooks. In polished Wood Case.

No. 3. Dissecting Case, same as above, but with an extra Scalpel.
No. 4. " " two " "



1503

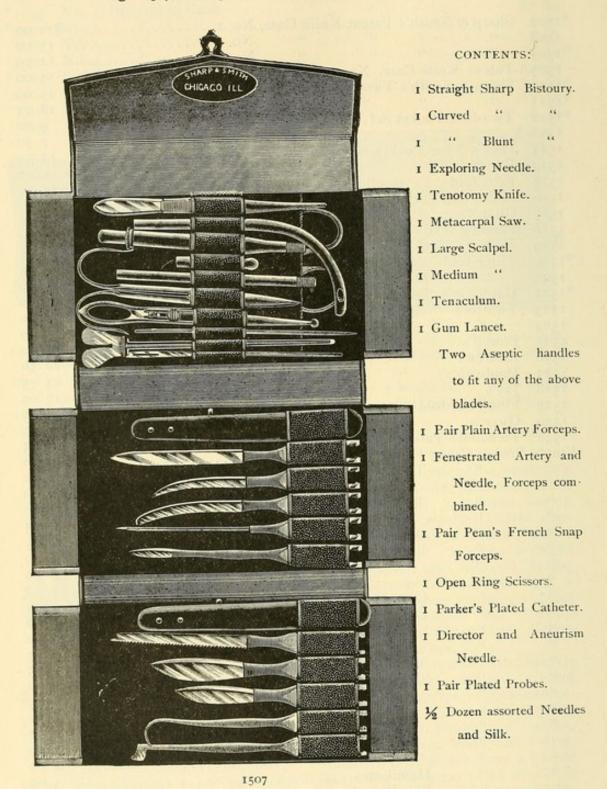
Saw and Knife, with one handle to fit both; 3 assorted Ebony Handle Scalpels; 1 Steel Cartilage Knife; 1 Ebony Handle Tenaculum; 1 pair Straight Scissors; 1 set Chain and Hooks; 1 German Silver Blow Pipe; 1 pair Dissecting Forceps; 1 plain Chisel; Needles and Thread. In polished Wood Case, Velvet lined, Lock and Key.

No. 1. Post Mortem set contains: 1 Hammer; 1 Costotome (rib Shears); 1 Steel handle Cartilage Knife: 2 Ebony handle Scalpels, assorted; 1 Steel handle Dissecting Hook; 1 pair Coxeter's Dissecting Forceps; 1 Enterotome; 1 set of heavy Chain Hooks; 1 pair of straight Scissors; 1 Saw; 1 Amputating Knife; 1 handle to fit the Saw and Knife; 1 Chisel; 1 Reamer; 2 Needles, Thread and Wax; 1 Mahogany Case, with a Slide or Lock, lined with Velvet.

No. 2. Post Mortem set contains; I Amputating Knife; I Saw; I handle to fit Saw; I Chisel; I pair of straight Dissecting Scissors; I set of Chain Hooks; I pair of Dissecting Forceps; I Aneurism Needle; I Metacarpal Saw; 3 Ebony handle Scalpels, assorted; I Steel Director; I probe-pointed Bistoury; I Hammer; I Steel handle Dissecting Hook; I large Ebony handle Cartilage Knife; I German Silver Blow Pipe; 2 Needles, Silk and Wax; I Mahogany Case, with Lock and Key, lined with Velvet.

FIG.				
*1507		Patent Knife Case, No. 1		00
1508		" No. 2	· ·	00
*1509	"	" No. 3	I2	00
1509A	-Patent Knife C	ise, No. 4	15	00
*1510	Sharp & Smith's	Two-fold (fine) Russia Pocket Case, I	No. 1 25	00
*1511	66 66	11 11 11 11	Vo 2 18	75
*1512	Two-fold Pocke	t Set	9	00
1512-1	۱ "	"	7	50
1513	Peck's Fine Po	eket Set	13	50
1514	Van Buren's	"		
1515	Four-fold	"		
1516	Multum in Parv			
1517	Gunn's	"	U	
1518	Parker's Plain	"		50
1519	" Fine	"	U	75
*1520	Three-fold	"		
		Set, Rubber handles		
1521	Hamilton's	"		00
*1522				00
1523	Two-fold	"		00
1524		" Rubber handles		00
1525	Powell's	"		-
1526	Andrews'	"		40
1527	Danforth's			75
1528	Jay's		9	
1529	Fine Four-fold	"	25	00
1530	Owen's	"		25
*1532	Tiemann's Pate	nt Pocket Case	24	75
Empty	Pocket Cases, F	our-fold Morocco, best	3	00
"	" T	ree-fold " (Fig. 1515)	2	50
"	"		.\$1 75 to 2	200
"	" Т	vo-fold "best (Fig. 1512)	2	00
"	44	" "	.\$1 25 to 1	75
"	" 0	ne-fold " best		
"		issia, One-fold		
"	"	" Two-fold (Fig. 1510)		
"	"	" Three-fold		
**	" C	oss' (Fig. 1511)		00
.6		enuine Sealskin, One-fold		50
"	"	" Two-fold		7.0
	46			00
"		Tillee-fold		75
	Λ	ligator, best		75
"		arp & Smith's Patent, No. 1 (Fig. 150)		00
		" No. 2 (Fig. 150)		75
"	"	" No. 3 (Fig. 1509		50
"	"	" fine No. 1		50
.6	"	" No. 2		00
"	"	" No. 3		00
**		amilton's	3	00
"	" V	n Buren's	.\$1 25 to 2	00
"		ınn's		00
Chamo		eket Case, One-fold		60
"	" "	" Two-fold		75
44	" "	" Three-fold		00

Fig. 1507. Sharp & Smith's Patent Aseptic Case No. 1.



In fine Calf Skin Case, Velvet and Satin Lined, 5 x 3 1/4 x 1 inches when closed.

See page 355 for description of the knives in the above case.

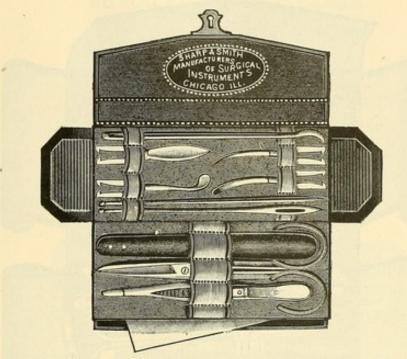


Fig. 1509. Sharp & Smith's Patent Aseptic Case No. 3. Contains:

Adjustable Hard Rubber Antiseptic I pair Scissors.
Handle.
I Artery and Needle Forceps.
Antiseptic Scalpel.
I " Probes.
I Ear Scoop.
I " Probe Pointed Bistoury.
I " Sharp Pointed Bistoury. Needles and Silk.

Fig. 1509-A. Aseptic Patent Knife Case-No. 4, contains:

I Exploring Needle.
I Curved Sharp Bistoury.
I Curved Blunt Bistoury.
I Straight Sharp Bistoury.
I Small Scalpel.
I Gum Lancet.
I Curved Sharp Bistoury.
I Large Scalpel.
I Tenotomy Knife.
I Tenaculum.
I Metacarpal Saw.

The above knives all fit in two patent slide catch Ivory handles. The case also contains:

I Plated Combination Male and Female Catheter.
 I pair Pean's French Snap Artery Forceps.
 I pair Probes.
 I pair Straight Scissors.
 I plain Artery Forceps.
 I Silver Tip Caustic Holder.
 I G. S. Director and Tongue Tie.
 I doz. assorted Needles and Silk.

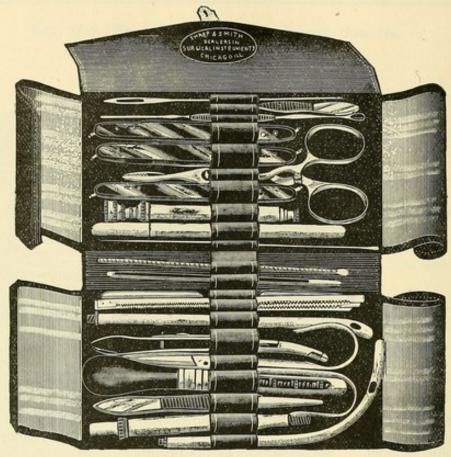
In a fine calfskin velvet and satin lined case, 5x3 1/4 x1 inches, when closed.

The above case is one of the neatest and cheapest cases in the market, and is equally as aseptic as cases 1507, 1508 and 1509.

We can put any of the above instruments in cases according to your own selection, charging accordingly.

Cases of all kinds put up to order.

I Gross' Ear Spoon and Hook.



1510

Fig. 1510-Contains a Combined Catheter, Male and Female, with Caustic Holder, Vaccinating Lance and Exploring Needle.

1 Self Registering Indestructible Index Fever Thermometer, in Metal Case.

- 1 Silver Barrel Hypodermic Syringe. 1 Set (of 3) Nested Trocars and
- 1 pair Dressing and Polypus Forceps.
- 1 " Plain Artery Forceps.
- 3 double slide catch pocket case knives 1 pair Open Ring Scissors, Gray's. (6 blades). Any style knives in I " Splinter Forceps.

combination wanted.

- I Lewis' Saw, Folding.
- 1 set Probes to screw together, com- 1 Eye Probe. prising Bullet Probe (flexible) Por- 1 Grooved Director.
 - celain Head.
- 12 Needles and Braided Silk (4 sizes on tablet).

All put up in a two-fold Russia case with chamois or buckskin cover. Fig. 1511. Sharp & Smith's 2-fold Russia (fine) Pocket Case No. 2, contains:

- 1 Scalpel and probe-pointed Bistoury. 1 Steel Director.
- tome.
- I Gum Lancet and Tenaculum.
- 1 Pair Straight Scissors.
- spring catch.
- 1 Sharp-pointed Bistoury and Teno- 2 Silver Probes.

Canulas.

1 Ear Spoon and Spud.

- 1 Metacarpal Saw. I Thumb Lancet.
- 1 Exploring Needle.
- I Pair Bull Dog Artery Forceps, with I Compound Catheter and Caustic Case, of sterling silver.

" Combined Needle and Artery

1 Pair Dressing Polypus Forceps. Needles, Silk, etc. 1 Spatula and Elevator. Turkey Morocco case, silk velvet lining, silver lock. Instruments doublebladed, tortoise-shell handles, slide-catch.

For illustration of 1511 case, see next page.

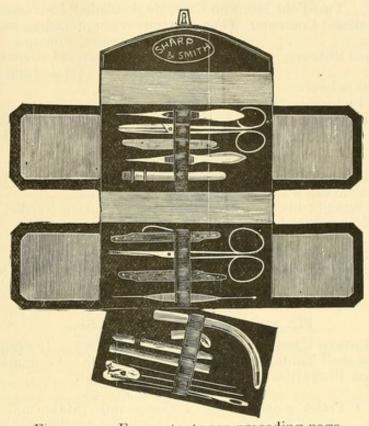


Fig. 1511. For contents see preceding page.

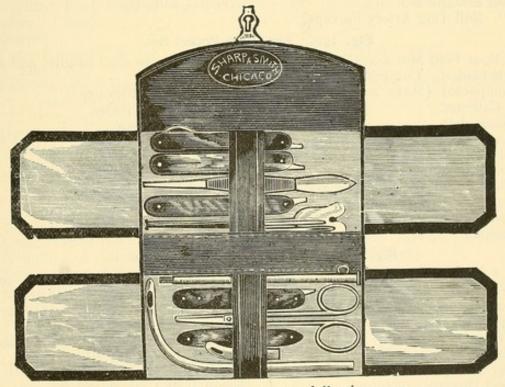


Fig. 1512. For contents see following page.

Fig. 1512. Two-Fold Morocco Case, single bladed Instruments, with tortoise shell handles. Contents: (For illustration see preceding page.)

1 Scalpel.

Probe-pointed Bistoury.

I Tenaculum.

I Pair Straight Scissors.

" Artery Forceps. " Silver Probes.

1 Pair Dressing Forceps.

1 Hard Rubber and Silver Caustic Case.

I Compound (Male and Female) Catheter.

1 Director.

6 Needles, and r Skein Silk.

Fig. 1512-A. Same Case as above, except Knives in Rubber Handles.

Fig. 1513. Peck's Fine Pocket Set.

Two-Fold fine Russia Case, velvet-lined. Instruments are tortoise shell handled, with slide catch and double bladed. Contents:

I Scalpel and Straight Bistoury.

1 Sharp and Probe-curved Bistoury

Tenaculum and Tenotome.

Pair Straight Scissors.

" Fenestrated Artery Forceps.

" Thumb Forceps. Needles, Silk, etc.

I Ivory Exploring Needle.

1 Pair Probes.

I Compound (Male and Female) Catheter.

I Director and Aneurism Needle.

I Coil Silver and I Coil Iron Wire.

Fig. 1514. Van Buren's Pocket Set.

Turkey Morocco Case, silk velvet lining, silver lock. Instruments double bladed, tortoise shell handles, with slide or spring catch. Contents:

I Sharp pointed Bistoury and Teno- I Steel Director. tome.

I Scalpel and I Probe pointed Bistoury.

I Gum Lancet and Tenaculum.

Pair Straight Scissors.

1 "Bull Dog Artery Forceps.

2 Silver Probes.

I Compound (Male and Female) Catheter, Sterling Silver.

1 Caustic Case, Sterling Silver, seamless. Needles, Silk, etc.

Fig. 1515. Four-Fold Pocket Set.

Four Fold Morocco Case. Instruments have tortoise shell handles and are single bladed. Contents:

I Compound (Male and Female) Catheter.

I Tenaculum.

I Hard Rubber Caustic Case.

2 Silver Probes. I Exploring Needle.

I Director and Aneurism Needle.

r Probe Pointed Bistoury.

1 Pair Dressing Polypus Forceps.

1 Scalpel.

1 Sharp Pointed Bistoury. 1 Pair Straight Scissors.

1 " Curved Sissors.

Thumb Lancet.

1 Spatula.

1 Pair Dissecting Forceps. 1 Straight Finger Bistoury.

1 Seton Needle.

Needles, Ligature Silk, etc.

Fig. 1516. Multum in Parvo Pocket Set.

Furkey Morocco Case, silk velvet lining, silver lock. Instruments are tortoise shell handled, with spring or slide catch, and double bladed. Contents:

I Sharp pointed Bistoury and Tenotome.

I Gum Lancet and Tenaculum.

I Pair Straight Scissors.

I Steel Director.

I Scalpel and Probe pointed Bistoury. I Pair Fenestrated spring catch Artery Forceps.

> I Female Catheter and Caustic Case, made of Sterling Silver.

2 Silver Probes. Needles, Silk, etc.

Fig., 1517. Gunn's Pocket Set.

Turkey Morocco Case, silk velvet lining, silver lock. Instruments double bladed, with tortoise shell handles and slide or spring catch. Contents:

1 Scalpel and Exploring Needle.

1 Sharp Pointed Bistoury and Teno-

Probe Pointed Bistoury and Scalpel.

1 Seton Needle.

I Tenaculum.

1 Pair Scissors.

1 Screw Probe Director.

1 Pair Torsion Forceps, with slide catch and a long groove (answers also for holding Suture Needle.)

Needles, Silk, etc.

Fig. 1518. Parker's Plain Pocket Set.

Two Fold Morocco Case, plain double bladed Instruments, with tortoise shell handles. Contents:

1 Scalpel and Probe Pointed Bistoury. 1 Lancet.

I Tenotome and Sharp Pointed " I Tenaculum and Gum Lancet.

1 Pair Dressing Forceps.

" Artery Forceps. " Scissors.

Needles, Silk, etc.

2 Silver Probes. 1 Steel Spatula. 1 Steel Director.

Plated Compound Catheter and Caus tic Holder.

Fig. 1519. Parker's Fine Pocket Set.

Contents the same as Parker's Pocket Set. Tortoise shell handled Instruments, either slide or spring catch, extra fine finished; the Compound Catheter (Male and Female) is made of sterling silver; the Caustic Holder is seamless, and will last much longer than a soldered one. The case is made of genuine Turkey Morocco, with a silver lock, very neat and compact.

Fig. 1520. Three Fold Pocket Set.

Three Fold Morocco Case, single bladed Instruments, with tortoise shell handles. Contents:

1 Scalpel.

1 Probe Pointed Bistoury.

1 Tenaculum.

1 Pair Straight Scissors.

" Artery Forceps.
" Dressing Forceps.

I Hard Rubber and Silver Caustic

Case.

1 Spatula.

1 Sharp Pointed Bistoury.

1 Gum Lancet.

I Compound (Male and Female) Catheter.

1 Director.

1 Pair Silver Probes.

6 Needles, and 1 Skein Silk.

For description, see following page.

Fig. 1522. Hamilton's Pocket Set.

Turkey Morocco Case, lined with silk velvet, silver lock. Instruments double bladed, with tortoise shell handles and spring catch. Contents:

I Medium and I Small Scalpel.

I Tenaculum and Aneurism Needle.

1 Sharp and 1 Blunt pointed Tenotome.

1 Metacarpal Saw.

I Pair Bull Dog Artery Forceps, with spring catch.

Needles, Ligature Silk, etc.

For description see following page.

I Large Scalpel and Exploring Needle. I Pair Slide Catch Torsion Forceps.

1 " Straight Scissors.

1 Thumb Lancet.

1 Set Silver Probes and Nelaton's Bullet Probe.

I Compound (Male and Female) Catheter and Caustic Holder, of Sterling Silver

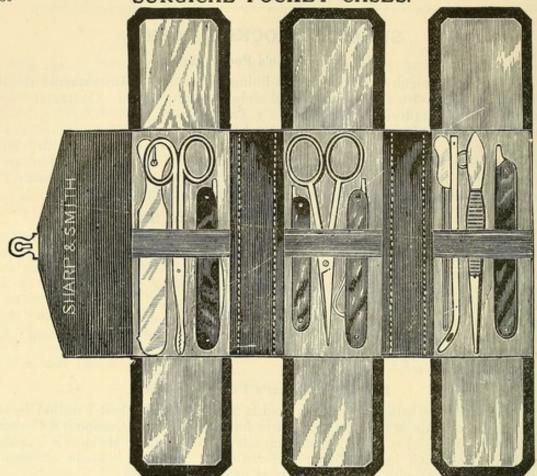


Fig. 1520. For contents see preceding page.

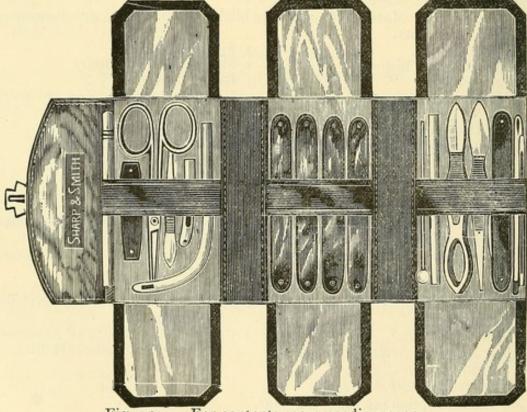


Fig. 1522. For contents see preceding page.

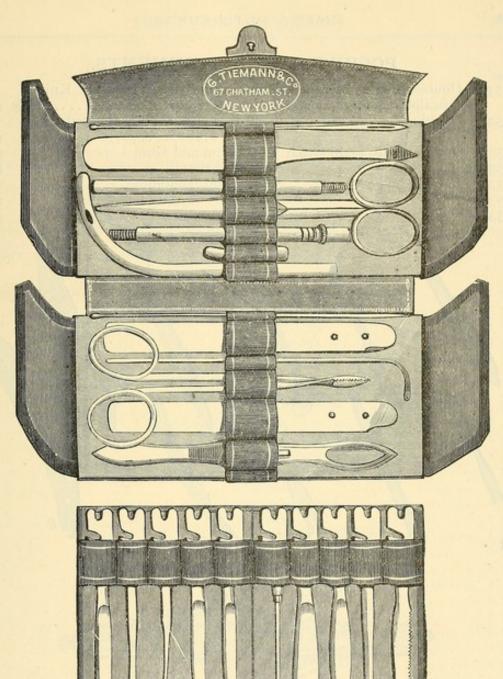


Fig. 1532. T. & Co.'s Patent Pocket Set.-PATENT CATCH INSTRUMENTS. A very neat and compact Case, of Turkey Morocco, with silver lock. Contents:

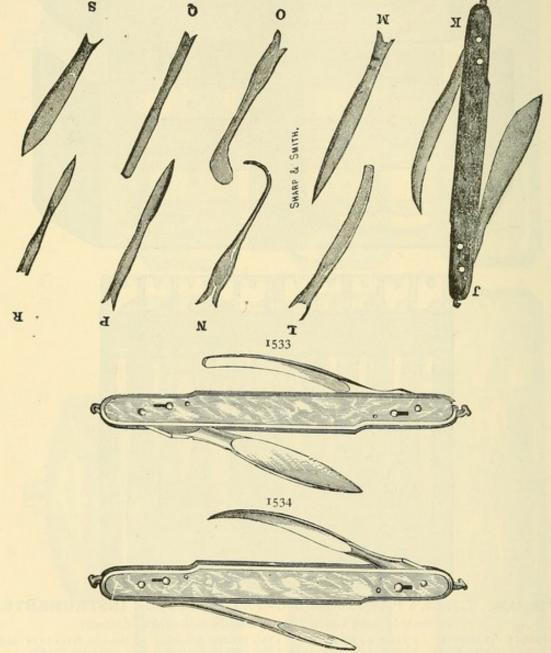
2 Patent Catch Handles.
1 Post's Exploring Needle.
1 Tenaculum.
1 Gum Lancet.
1 Sharp Pointed Bistoury.
1 Probe Pointed Bistoury.
1 Needles St.

I Pair Straight Scissors.
I Pair Dressing Forceps.
I Pair spring-catch Fenestrated Artery Forceps.
I Spatula.
Silver Probes.
I Grooved Director and Aneurism Needle.
I Compound Catheter, of Sterling Silver
I Caustic Case, of Sterling Silver, scamless.

Needles, Suture Silk, Suture Wire, etc.

POCKET CASE INSTRUMENTS.

FIG					
*1533	Double Blad	e Slide C	Catch, Tortoise Shell handle Knives,		
			arp Bistoury, J K\$	1	75
*1533	Double Blade	e Slide Ca	tch, straight, sharp and curved blunt		
	Bistoury, L	M		I	75
*1533	Double Blade	Slide Cate	ch Tenaculum and Gum Lancet, N O	1	75
*1533	"	"	Sharp and Blunt Tenotome, P Q		
*1533	44	"	Scalpel and Tenotome, R S	1	75
*1534	"	"	" curved blunt Bistoury	I	75
*1535	"	"	Tenotome and curved sharp Bistoury.		



(See following page for additional Double Slide Pocket Case Knives).

All instruments designated by a * are illustrated.

POCKET CASE KNIVES.

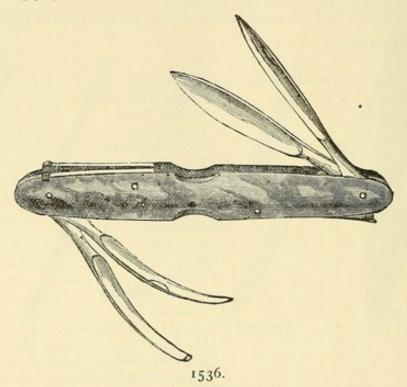
In addition to the few illustrations of Double Slide Pocket Case Knives shown on preceding page—we keep the following "Combinations" in stock:

Should you not find the exact combinations, we can put the blades wanted together at short notice.

Double	Slide Catch	Shell Har	ndle Scalpel	and	Gum Lancet \$	1	75
	4+	- 11	'	**	Sharp Curved Bistoury		75
4.6	.4	*	**	**	Straight Sharp "		75
**	**	**	**	**	Hernia Knife		75
**	**		**	**	Exploring Needle		75
**		**	44		Tenaculum	I	75
65	**	44	**	**	Scalpel		75
66	44	**	44	**	Aneurism Needle		75
44	**	- 44	Gum Lance	et"	Straight Bistoury		75
4+	**		**	**	Tenaculum		75
**	**	44	**		Probe Curved Bistoury	I	75
	14	**	4.6		Sharp " "	I	75
4.6		- 66	44	4.6	Tenotome		75
	44	44	44	46	Exploring Needle		75
44	**	**	**	1.6	Aneurism "	I	75
	**	64	Tenotome	e **	Straight Sharp Bistoury		75
4.6	44	**	**	**	Sharp and Blunt "	I	75
**		**	**	**	Exploring Needle	1	75
44	**	44	**	**	Probe Curved Bistoury	1	75
**	44	44		4.6	Aneurism Needle	I	75
	44	**	Tenaculum		Tenotome	1	75
44	**	**	**	**	Exploring Needle	I	75
***	**	- "		**	Sharp Curved Bistoury	I	75
**	**	**	**	**	" Straight "	I	75
11	**	**	44	**	Aneurism Needle	1	75
1.6	4.6	44	- 11		Probe Curved Bistoury	1	75
14	+4	44	**	**	Hernia Knife	I	75
11	"	**	Sharp	66	Probe Straight Bistoury	I	75
- 11	**	44	**	**	Straight and Curved Bistoury	I	75
**		**	"		" " Blunt Bistoury	I	75
**	- 44	**	**		Curved Bistoury and Hernia Knife	I	75
4.6	"	**	**	**	" " Aneurism Needle	I	75
	"		- 61		" Exploring "	I	75
. 64	**	- 11		**	Straight " " " "	I	7.5
**	**	**			Curved " Aneurism "	I	75
"	**				" Exploring "	I	75
**	**	**	He		Knife "Aneurism"	1	75
	**	**		**	" and Probe Curved Bistoury	I	75
**	**	**		**	" Straight Bistoury	I	75
**	**	44	Ex	plori	ng and Aneurism Needle	I	75

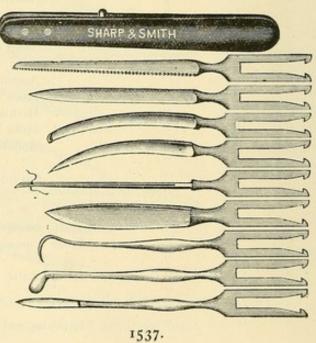
POCKET CASE INSTRUMENTS.

FIG.		
*1536.	Four-blade Knife, containing Scalpel, straight sharp Bistoury,	
00	curved sharp Bistoury, curved blunt Bistoury \$ 3	75
*1537.	Sharp & Smith's Patent Pocket Case Knives, ten blades and	
	two Handles, set complete	00
1537A.	Sharp & Smith's Patent Pocket Case Knives, single	75
1538.	" " " showing the	
-	working and advantage of them over all others. See follow-	
	ing page.	



Pocket Case Knives, in set. The accompanying cut fails to show one other blade, viz.: A Hernia Knife and an additional Handle. The set complete contains two Handles and ten Blades.

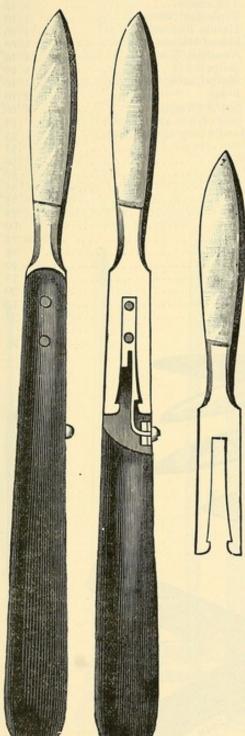
Instruments designated by a * are illustrated.



THE LATEST NOVELTY IN SURGICAL INSTRUMENTS.

THE ONLY PERFECT DETACHABLE KNIFE.

It is Self-setting, and Absolutely free from Objections. (Patent applied for.)



1538.

In this day of antiseptic operations it is but natural that attention be turned to the proverbially rusty and dirty slide catch instruments, which cannot thoroughly be cleansed. We have been assured by the most eminent physicians and surgeons of this country and Europe that our invention fills the bill, and that our detachable knives will take the place of the old style slide and spring catch instrument.

The accompanying cuts show the object of the invention, viz.: To provide an improved means of detachably fitting to a handle different blades or similar instruments, whereby one handle may answer for a number of different instruments.

The plan of using a single handle for different blades, due provision being made for securing them together and readily detaching them, has long been practised in many different ways, but this invention we conceive to be a substantially better and more convenient means for accomplishing the same object.

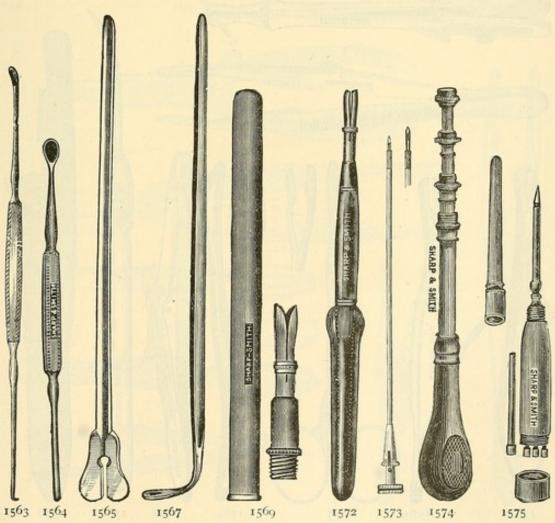
Physicians and Surgeons, when using such improvements as these, require a readily detachable blade which is firmly held in its place in its handle. The shape of the handle is of prime importance, and the presence of any device in the handle for securing and releasing the blade is a serious objection if it is in any way likely to form an obstruction to the free use of the handle, or of such character that it is likely to be accidentally turned or otherwise operated when it is not desired.

The requirements of a device which entirely avoids objections of the heretofore existing handles we have secured to our improvement, in which a bifurcated handle containing a spring catch operated by a push button projecting slightly out from the handle, a blade with a bifurcated shank, which when pushed into the slot in the end of the handle receives the catch therein between its ends and is locked in place thereby. This is the general plan of construction; the details are shown in the accompanying drawings.

8		POCKET	CASE	INS	TRUMENTS.	
FIG.	Single Blad	le Slide Catch Te	ortoise Shel	I Han	dle Finger Knife\$	I 10
1539 1539-A		ie Slide Catell 14	ortoise one	- 64	Gum Lancet	I 10
1539-l		4.6	44	**	Sharp Tenotome	I 10
1539-0	3 "	ATTENDED OF THE PERSON OF THE	**	**	Blunt "	I IO
1539-I		"	"	**	Tenaculum	1 10
1539 l		**	44	**	Exploring Needle	1 10
1539-I		"	**		Hernia Bistoury Symes Abscess Knife	I 10
1539-0 1539-I				"	Aneurism Needle	I 10
1539-I				66	Scalpel	I 10
1539-1		66	**	44	Sharp Curved Bistoury	I IO
1539-1	K "	"	111111111111111111111111111111111111111	**	Blunt " "	1 10
1539-I		"	"	**	Sharp Straight "	I 10
1540		Plain	0 p		(any of the above)	75
1541		cate Shall Hand	lle I	I. K. I	Handle (any of the above)	55
*1542 1543	Abscess Lan	H. R. "	iic			75 50
*1544	Thumb "	Shell "				50
1545	16 16	H. R. "				35
1546	** **	Evans' Gen	uine			75
*1547	Vaccinating	Lancet with Stee	el Comb			75
1548	46					60
1549						1.00
1550 1551	Lancet Case	two				25 50
*1552	Seton Needle				• • • • • • • • • • • • • • • • • • • •	75
*1553	Exploring 1	Needles, Ebony	Case		***************************************	30
1554	**	" Shell H	landle			75
1555	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	" Ivory C	ase	• • • • •		35
	Surgeon's	(see ind	lex)			
	rost's and b	dick's Needles, 5	nen Handi	e	each	1 75
			0			
	1		1552		>	
			1547			11
Sib	OHP & SMITH		> (55	INE & SEC	Anna A smill
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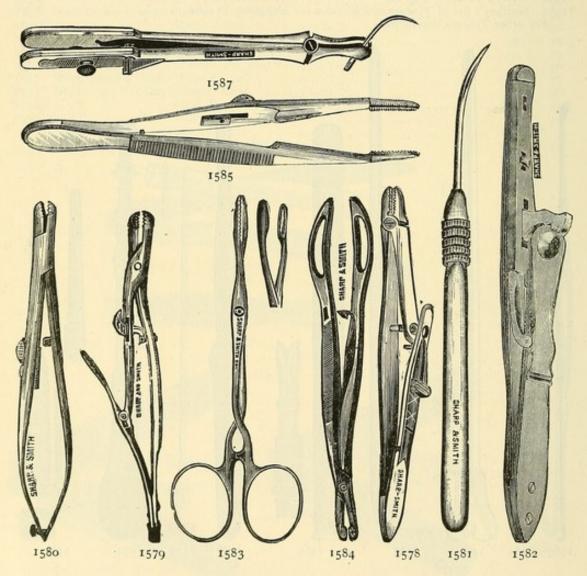
POCKET CASE INSTRUMENTS.

FIG.			
1556	Finger Saws, shell handle, slide catch\$	I s	50
1557		I	CI
*1558	" Lewis folding	1 8	85
1559	Spatulas and Tongue Tie	2	45
1560	" Folding		75
1561	" and Elevator, Dugas'		75
1561A	" Pocket Case		10
1562	Greene's Double Tenaculum and Operating Hook	I :	25
*1563	Gross' Ear Spoon and Hook.	-	55
*1564	" " " Spud		75
*1565	Director and Tongue Tie, German silver		45
1566	" " Ear Spoon		55
*1567	" Aneurism Needle,		45
1568	Caustic Holders, short, silver	1	2.00
*1560	" " medium, silver	1	50
1570	" hard rubber, small		45
1571	" " medium		60
*1572	" " silver burner		75
*1573	Exploring Trocar, Silver Canula.	1 0	0.7
*1574	Nested Trocars, 3 in set	3	50
*1575	Southey's Set of Trocars and Canulas for Anasarca, in case	2	-
	r other Trocars, see index.	7	-
-			



All Instruments designated by a * are illustrated.

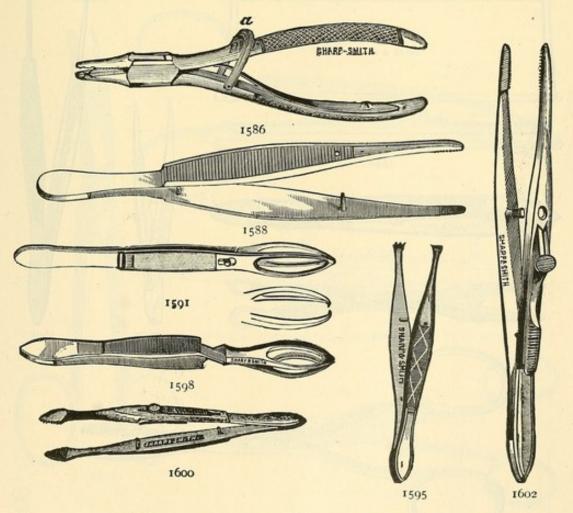
POCKET CASE INSTRUME	ENTS.		
1576 Probes, silver, per pair	\$		50
1577 " plated, " "			35
(For other Probes, see index.)			
*1578 Needle Holding Forceps, Whitney's		3	25
*1579 " " Sand's			00
*1580 " " Prout's		-	60
*1581 " " Parker's			50
*1582 " " Hagedorn's, pocket			50
*1583 " " French snap			25
*1584 " " and Artery combine			00
*1585 " " and Torsion combin			75
*1586 " " Heuel's			00
*1587 " " Sharp & Smith's		1000	50



All instruments designated by a * are illustrated.

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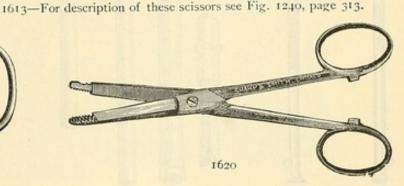
PIG.					
*1588	Artery	Forceps,	plain	\$	40
1589	"	"	Liston's plain		85
1590	"		" spring catch		25
*1591	"	"	Fenestrated spring catch	1	50
1592	"		" slide "		75
*(1584)	"	- 66	" " and Needle Holder		00
*(1585)	**	"	Slide Catch and Needle	I	75
1593	44	66	Danforth's		25
*1594	- 44	44	McLean's		25
*1595	44	"	Owen's		25
1596	44	"	Hamilton's Fenestrated Spring Catch		75
1597	44	**	" " Slide "		00
	44	66	Pratt's (see page 319.)	1	75
	44	44	" new (see page 319.)		50
*1598	- 44	"	Cross Action		50
1599	"	- 66	Shield's		50
*1600	44	- 66	Andrews'		00
1601	44	- 66	Lankford's	1	10
*1602	"	"	Frickes'		80



All instruments designated by a * are illustrated.

		FORCEPS.		
1603	Artery Forcens	Bigelow's		
1603A	" "	Langenbeck's		2 75
1604		Dugas'		T 15
*1605		Cleborne's & Tissue		2 50
		Frank's Artery and Dress		
15.	" "	Lawson Tait's, snap cate	ch	2 00
31	" "	Thomas' " "		1 85
page		Pean's " "		I 25
pa		Little's " "		2 50
See		Wylie's " "		1 50
S		Wood's " "		1 50
1606	Phelps' Torsion	Forceps, spring catch		3 00
*1607	Adams' Splinter	Forceps		75
*1608	Little's "	"		75
*1609	Polypus Dressing	g " plain		I 00
*(1583)		" Pean's (page 315	;.)	I 25
1610	Bone Cutting F	orceps, small		2 50
1611	Ann Arbor Dres	ssing Forceps		I IC
	SHARI	P & SMITH		BEE
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		1605	1607	1608
		1605	1607	(608
		1609	1607	(608

SCISSORS. FIG. *1612 85 *1613 2 00 *1614 85 1615 75 1616 ı point probed..... Gray's Straight P. C. Scissors, open ring..... 1617 1 00 *1618 Curved on flat P. C. Straight Scissors..... 1 00 Folding Straight Scissors.... 1619 1 15 *1620 Scissors and Forceps combined.... 1614 1612



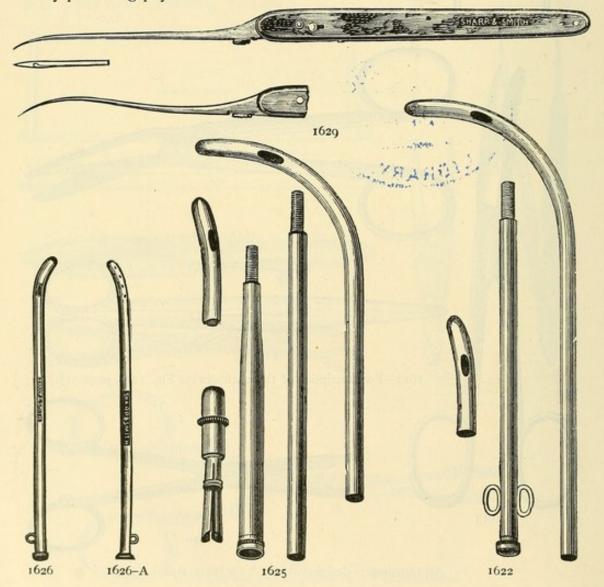
All instruments designated by a * are illustrated.

1618

POCKET CASE INSTRUMENTS.

FIG.							
1621	Catheters-	-Combined	Male and	Female		\$1	00
*1622	"	"	"	- 66	plated	I	00
1623	"	"	44	"	silver		
1624	66	"	"	- 66	Parker's, with Caustic		3
	Holder,	plated				1	75
*1625	Catheters-	_Combined	Male and	Female	e, Parker's, silver		25
*1626							75
*1626A					nd		75
1627	"	plated "					35
1628	"	with Caust	ic Holder	, Vaccin	nating Needle and Ex-		-
	ploring	Trocar, pla	ted			2	50
0.000							

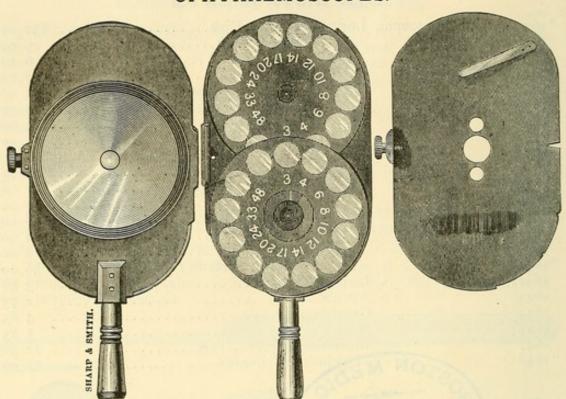
This needle was introduced in this city by Dr. R. Ludlam of Chicago, who brought it from France, and he uses it constantly. We recommend it to every practicing physician.



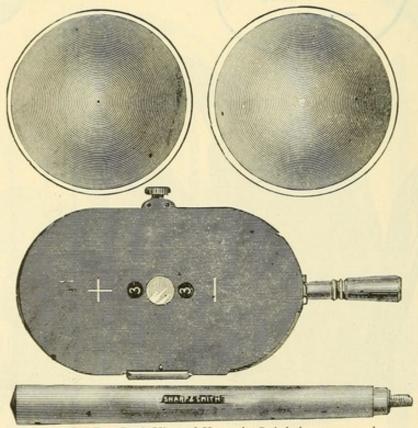
	E	YE IN	STRU	MENTS.
*1630	Onhthalmoscopes	Loring's	Double	Disk\$30 00
*1631	"	"	Single	Disk 20 00
1632	44	66	7-Lens	s 6 50
1633		"	12 "	12 00
*1634	44	66	15 "	Student 15 00
1635	. 44		16 "	Tilting Mirror 20 00
1636	44	44	24 "	" " 24 00
1637	44	44	20 "	" . " 22 50
1638	66	"	15 "	4 - Inch Quadrant Tilting
				Mirror 28 00
1639	**	Knapp's	12-Len	s, Single Disk 15 00
*1640	- 66	45	24 "	" " 20 00
1641	"	44	Double	Disk 28 00
1641A	"	44	"	" 28 00
1641E	3 "		44	" 28 00
*16410	, "	44	Metric	System 30 00
1642	"			3 00
1643	. "			2 75
1644	44			4 85
1645	66			5 25
1647	"			22 50
1648	TON A	Polyclini	c, 23 Le	enses 21 00
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Application of the Ophthalmoscope.

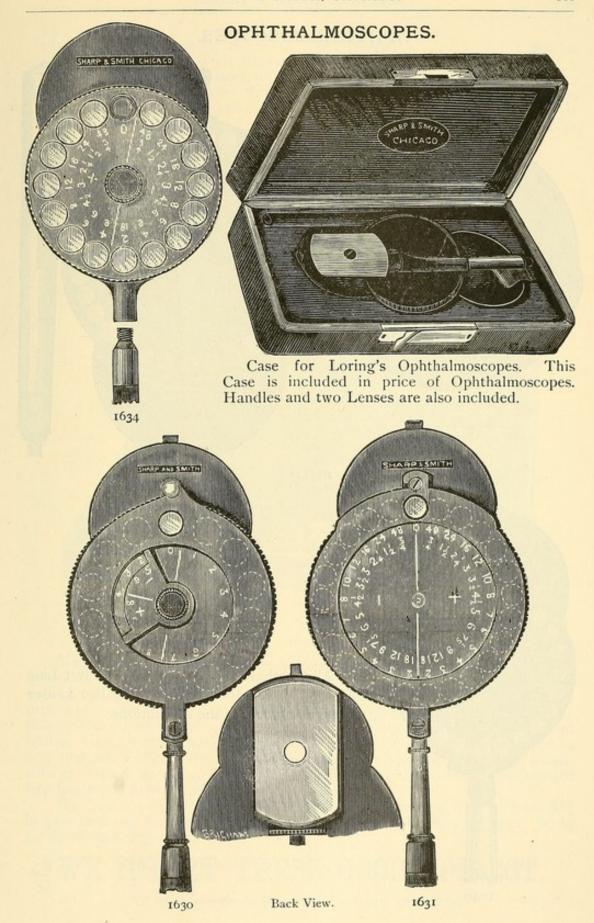
OPHTHALMOSCOPES.



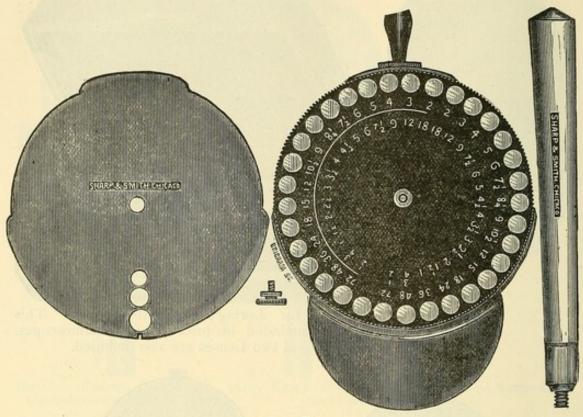
1641-A. Knapp's Double Disk 1641. Knapp's Double Disk Ophthalmoscope, Lense, Disks Ophthalmoscope (Front View.) and Covers (removed), \$35.00



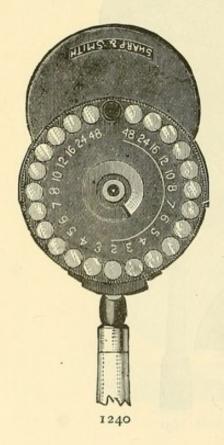
1641-B. Back View of Knapp's Ophthalmoscope and Magnifying Lenses (Handles Detached.)



OPHTHALMOSCOPES.

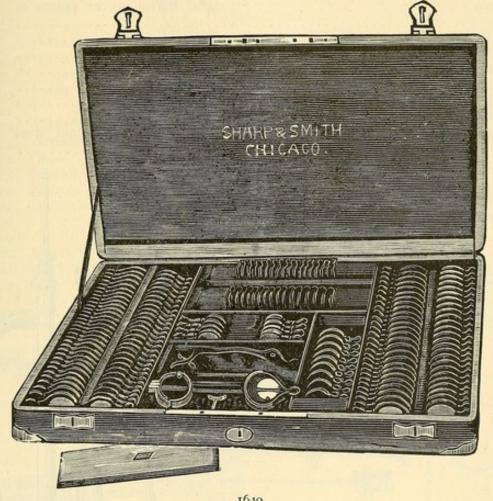


1641-C.



All Ophthalmoscopes are put in Velvet Line Morocco Covered Cases, including two Lenses not shown in any of the illustrations.

	Nachet's Complete Series of Trial Glasses	
	and spherical glasses, a holder, and necessary test types 14	00
1651	Snellen's Series Test Types, bound 2	50
1652	German Trial Frame 3	00
	Nachet's " " 1	



1649

Nachet's, with complete series of trial glasses, comprising 30 pairs each of spherical, convex and concave lenses, from 13/4 to 148 inches focus; 18 pairs each of cylindrical, convex and concave lenses, from 6 to 148 inches focus; 10 prisms of angles from 2 to 20 degrees; 4 plain glasses, of assorted colors; 1 plain white glass; 1 half ground glass; 2 metal discs, with slits of assorted widths, 1 each metal discs, solid and with central perforation, all mounted in gold and silver plated metal rims, with handles; 1 adjustable spectacle frame, with graduated revolving fittings, for holding the various lenses; 1 adjustable lens holder, of horn. In elegant velvet lined case.

We have a very complete stock of Trial Cases ranging in price from \$14 to \$100, and can furnish same at lower prices than any one in the city. Write

for contents and prices.

WE IMPORT THESE GOODS DIRECT.

All instruments designated by a * are illustrated.

EVE INSTRUMENTS.

FIG.	ETE INSTRUMENTS.		
	Plaughatt's Instrument for exhausting soft estarget	0.	
*1654	Blauchett's Instrument for exhausting soft cataract		
*1655	Hollow Scoop for soft cataract	-	00
*1656	Bowman's Instrument for exhausting soft cataract		25
1657	Anel's Silver Lachrymal Syringe, with silver and gold points	-	00
*1658	" " H. R. with gold points	3	50
*1659	" metal barrel, silver points in		
	case	3	00
1660	Anel's White Metal Lachrymal Syringe	I	75
1661	" Glass Barrel " "		50
*1662	Agnew's Lachrymal Syringe		75
*1663	McFarlan's Hard Rubber Lachrymal Syringe		50
1664	Hard Rubber Lachrymal Syringe, one needle	1	
1665	" " " silver		50
*1666	Dr. J. Austin Dunn's Lachrymal Syringe, No. 1, blunt steel		3-
1000	needle	1	15
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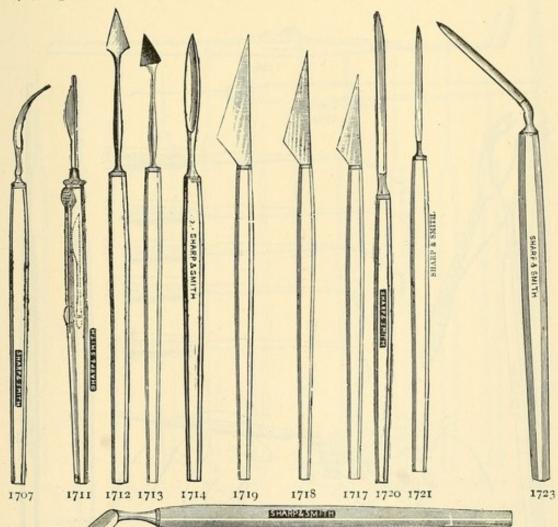
FIG.	EYE INSTRUMENTS.	
1667	Dr. J. Austin Dunn's Lachrymal Syringe, platinum needle\$	I 50
1668	" " gold needle	
	Steel Needle for above	75
1668B	Platinum Needle for above	I 25
1669C	Gold " " "	2 75
*1670	Lachrymal Styles, A, hard rubber	40
*1670	" B, lead	20
*1670	" C, E, Williams', each	35
*1670	" D, silver	35
*1670	" F, canulated silver	40
*1670	" " G, " "	40
*1670	" " H, " "	40
*1670	" " I, " "	40
1671	" in gold	
1672	Silver Lachrymal Canula	40
1673	Wecker's " "	1 15
1674	Gold " " \$2 00 to	
1675	Gensole's " for cauterizing the nasal duct	2 25
1676	Liebold's Subpapheral Syringe	I 10
*1677	Desmarre's Eyelid Retractor, large	1 25
*1678	" " " small	1 25
*1679	" " jointed for pocket	1 50
1680	Noves' " "	I 50
*1681	Ivory Strabometer	1 65
*1682	Stokes' Eyelid Compressor	2 00
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		EY	EINSIK	UMEN.	15.				
*1683	Dix's Spu	d. half round						S T	00
*1684		flat						I	00
1685		and Curett	e					I	85
*1686	** **	and Explo	ring Needle					2	00
1687	Walton's Fe	oreign Body	Gouge						10
1688			point						25
*1689 1690			Trocar, short pouments						25
*1691			· · · · · · · · · · · · · · · · · · ·						20
1692									15
*1693	Desmarre's								10
1604		" and C	urette					I	85
*1695		" and S	ilver Lens Scoo	р				I	85
*1696	Pocket Gou	ge and Spatul	a in Sliding Ca	se				2	00
*1697 *1698		lle and Spud	ves, flexible sha	nl.	• • • • • • • • • • • • • • • • • • • •			2	00
*1699	Noves Cana	ted Canalicul	ous Knife	пк		• • • • • • •			00
*1700	" Still	ing's "	''					3	30
*1701	Stilling's Ca	naliculous Ki	nife					I	10
*1702	Agnew's	" "							25
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EYE INSTRUMENTS.

	ETE INSTITUTION	
FIG.	Weber's Straight Canaliculous Knife\$	1 10
1703	" Half Curved Canaliculous Knife	1 30
1704		1 30
1705		
1706	Downlan S Cananculous Tenne, samp.	1 25
*1707		I 25
1708	Alleulai	1 25
1700	Leiblich	1 25
1710	Deaumont's Conceated	6 00
*1711		3 00
*1712		1 15
*1713	mig time it is a second to the	1 25
*1714	Scame large	1 10
1715	" medium	1 10
1716	Small	I 10
*1717	Beers' Cataract Knife, large	1 10
*1718	" medium	I 10
*1719	Silidii	I 10
*1720	Graefe's " "	1 10
*1721	" " mod. by Noyes	I 15
1722	" " convex edge	1 15
*1723	Baeder's " angular, right or left	1 50
*1724	Agnew's Iridectomy Knife	1 30
1/-4	Tigues o Indeedon', Transcription	
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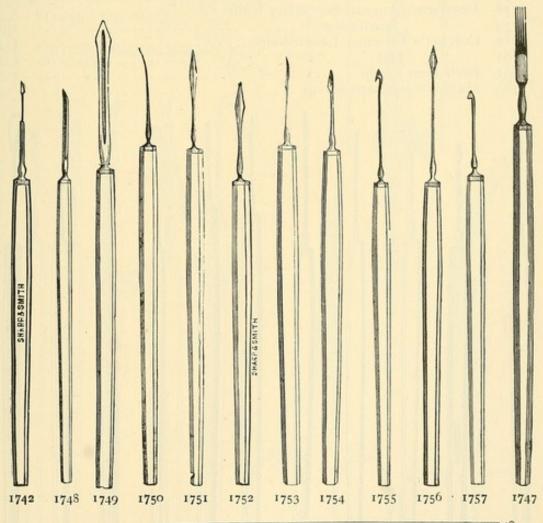


EYE INSTRUMENTS.

		1. 1	E INSTRUMENTS.	
1724A	Strabiemus	Hooks	large\$	90
*1725	44	1100ks,	small	-
1725	"	"		90
*1726	"	- 66		3 00
*1727	"			1 00
*1728		66		I 20
*1729	"	"	Taylor's "	I 20
*1730	"	"		1 00
1731	"	"		1 75
1732	Ball's Doub	le Hook	s, with slide	2 25
1733	Knapp's Fo	reign Bo		1 50
*1734	Tyrrell's Sh	arp Hoo	oks	90
*1735	" Blu	unt "		90
*1736				1 15
1737	Onhthalmos	tats thr	ee pointed	1 10
*1738	"			6 00
	"			
1739	Damard'a Di	INO.	,	1 65
1740	Tout D	que for	and eye	1 15
*1741	Test Drum	for testi	ng edges of cutting instruments	60
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1		_	CAMPA COUTS	
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E STATE		-	
*1742	Bowman's Stop Needle	\$1	10
1743	Iris Needle, plain	I	10
1744	" De La Roosa's	1	00
1745	Couching Needle	I	OC
*1746	Baeder's Tattooing Needle	I	50
*1747	Agnew's " "	I	25
*1748	Grooved	1	25
*1749	Walton's " grooved	1	25
*1750	" Round Pointed Needle	I	50
*1751	Paracentesis Needle, broad	I	00
*1752	" very broad	I	00
*1753	Hayes' Knife "	1	10
*1754	Sharp & Smith's Knife Needle.	I	10
*1755	Luzardi's Hooked "	1	15
*1756	Levis' Needle, with eye	I	20
*1757	Critchet's Hooked Needle	1	10
1758	Caron de Villard's Needle	I	00
1759	Angular Needle	1	00
1760	Needle and Spud, metal case	2	00
1761	" " hard rubber case	I	75
1762	" " ivory case		25
			-



All instruments designated by a * are illustrated.

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Broad "								II	(
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Double 1	Edge Iri	s Knife						I 5	(
Sickle Sh	ape "	"						I 2	
Concave	Edge, Se	condary	Knife.					I 2	
Convex	"	44	" .					I 2	
Desmarre								I 2	
								I I	
Critchet's	s Concav	e Lens	Scoop.						
CI II T	Flat	**	" .						
Hard Ku	bber Len	s Scoop						7	
		4					9)	0	
	Eye Need "Silk, Plain Iris Broad "Stop "Double ISickle Sh Concave Convex Desmarro "Critchet's "Shell Len Hard Ru	Eye Needles, per of "Silk, see inde Plain Iris Knife. Broad "". Stop "". Double Edge Iris Sickle Shape "Concave Edge, Se Convex "Desmarre's Angul "Scarifi Critchet's Concav "Flat Shell Lens Scoop Hard Rubber Len	Depression Needles, large Eye Needles, per dozen. "Silk, see index Plain Iris Knife Broad "Stop "Double Edge Iris Knife Sickle Shape "Concave Edge, Secondary Convex "Desmarre's Angular Secon Scarificator Critchet's Concave Lens Flat "Shell Lens Scoop Hard Rubber Lens Scoop	Depression Needles, large curved Eye Needles, per dozen	Depression Needles, large curved. Eye Needles, per dozen. "Silk, see index Plain Iris Knife. Broad " Stop " Double Edge Iris Knife. Sickle Shape " Concave Edge, Secondary Knife. Convex " " Desmarre's Angular Secondary Knife. "Scarificator. Critchet's Concave Lens Scoop. "Flat " " Shell Lens Scoop. Hard Rubber Lens Scoop.	Depression Needles, large curved. Eye Needles, per dozen. "Silk, see index Plain Iris Knife. Broad " Stop " Double Edge Iris Knife. Sickle Shape " Concave Edge, Secondary Knife. Convex " Desmarre's Angular Secondary Knife. "Scarificator. Critchet's Concave Lens Scoop. "Flat " Shell Lens Scoop. Hard Rubber Lens Scoop.	Depression Needles, large curved Eye Needles, per dozen "Silk, see index Plain Iris Knife Broad " Stop " Double Edge Iris Knife Sickle Shape " Concave Edge, Secondary Knife Convex " Desmarre's Angular Secondary Knife "Scarificator Critchet's Concave Lens Scoop "Flat " Shell Lens Scoop Hard Rubber Lens Scoop	Depression Needles, large curved Eye Needles, per dozen "Silk, see index Plain Iris Knife. Broad " Stop " Double Edge Iris Knife Sickle Shape " Concave Edge, Secondary Knife Convex " Desmarre's Angular Secondary Knife. "Scarificator. Critchet's Concave Lens Scoop. "Flat " Shell Lens Scoop. Hard Rubber Lens Scoop.	Depression Needles, large curved 11 Eye Needles, per dozen 10 % Silk, see index Plain Iris Knife 11 Double Edge Iris Knife 11 Double Edge Iris Knife 11 Sickle Shape " 12 Concave Edge, Secondary Knife 12 Convex " 12 Scarificator 12 Scarificator 11 Critchet's Concave Lens Scoop 13 % Flat " 12 Shell Lens Scoop 13 % Hard Rubber Lens Scoop 7

1763 1765 1766 1771 1773 1774 1775 1779 1783 1784 1785

EYE INSTRUMENTS.

FIG.	ETE INSTRUMENTS.
*1784	Graefe's Lens Scoop\$ 1 25
*1785	
	Fenestrated Lens Scoop 1 25
1786	Lens Scoop and Spud 1 85
1787	Hard Rubber Spoon 50
*1788	Desmarre's Knife for enlarging the cornea section 1 15
*1789	" Short Knife for enlarging the cornea section 1 15
*1790	Angular Knife for enlarging the cornea section, R. or Leach 1 25
1791	Strabismus Bistoury, curved 1 75
1792	" " straight 1 10
1793	Jaeger's Bistoury Cache 6 00
1794	Parker's Fistula Lachrymalis knife 1 25
*1795	Wilde's Canulated Forceps 9 00
*1796	" " Scissors,
	and Forceps Needle, in 1 handle. 11 25
*1797	Wilde's Canulated Needle 9 00
*1798	Noyes' Iris Scissors 3 00
1798-	
*1799	
1800	
	neavy 1 15
*1801	Curved on flat Iris Scissors, light. 1 10
1802	" " " heavy 1 15
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1790	1788 1789 1797 1798 1795 Instruments designated by a * are illustrated.
	and the state of t

	EYE INSTRUMENTS.	
*1803	Scissors Strabismus, angular\$	1 10
1804	1 0	I 10
1805	" Noyes'	3 00
*1806	" Hobby's curved	2 25
1807 *1808		1 10
*1809	maunon's Cananeurous, one made, probe-ponece	7 50
*1810	" Wecker's Iridectomy	6 50
1811		3 25
1812	" Haldeck's "	4 00
1813	" Strawbridge's Keratome	7 50
	1809 SHARF-GAMIN 1803 1808 1806	

All instruments designated by a * are illustrated.

EYE SCISSORS.

*1814.	Eye	Scissors,	Chadwick's	Pterigum		\$	4	50
*1815.	**	44	"	"			4	50
*1816.	"	44	Stevens' Sub	conjunctival	Tenotome	Scissors	3	25

(Extract from "Archives of Ophthalmology," June, 1888.)

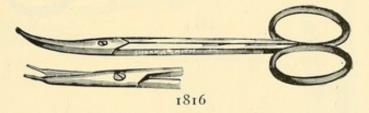
THE ANOMALIES OF THE OCULAR MUSCLES.

By Dr. George T. Stevens, New York.

* * The method of operating in heterophoria has been described in a former paper. Since writing that paper the method has been still further modified, and I shall here only refer to the modified steps in the operation.

In making the incision through the conjunctiva the smallest possible opening is made, precisely over the center of the insertion of the tendon. The opening should be less than ½ millimeter in extent. Then the blades of the scissors are introduced with greatest care, one on the scleral and the other on the conjunctival side of the tendon, when they are insinuated toward the border, then pressed strongly against the insertion of the tendon.

In order to permit the blades to be introduced in this small wound and to be carried properly into position for cutting the tendon, they have been modified in an important manner. As now made the blades are quite thick and strong until within about one-third of an inch from the extremity, when they become suddenly very slender, the two united being less than the size of No. 1 Bow-



man's probe. The points, although so extremely delicate, are perfectly strong, and "walk and talk" together in the most perfect manner. There is no catching or failure to cut under any circumstances.

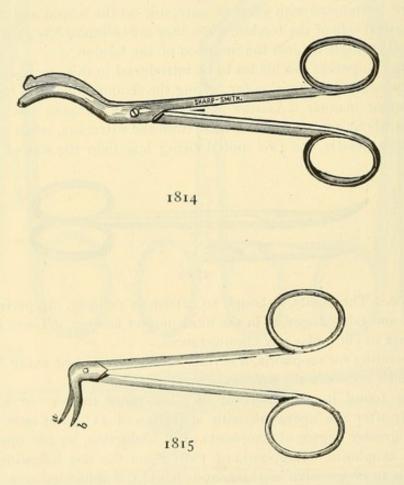
In operating for esophoria, a certain allowance is to be made for the contraction which occurs in the process of healing.

I have found it advisable not to allow more than 1° or 2° exophoria immediately after the operation, with abduction of 11°, or at most of 12°. If we allow a greater degree of exophoria or of abduction, we are open to risk of permanent exophoria. Exophoria of 1° or 2° on the day following the operation is liable to progressive increase, and should the abduction remain in excess with exophoria 1° or more on the next day after the operation, the excess should be corrected. An exophoria 1° or 2°, with abduction of 11° or 12° at the time of operation, very rarely, if ever, shows an over-correction after the first few

hours. On the following day after such an operation, we should hope for abduction of 8° with no esophoria.

Should it be required to reduce the extent of the operation, it can be accomplished in the following manner: A delicate Tyrell's hook is introduced beneath the conjunctiva and the divided extremity of the tendon. The hook is then turned with its point forward and pressed against the central part of the tendon, when traction is made. The extreme cut border of the tendon is drawn into the small opening of the conjunctiva, when a needle carrying a No. oooooo silk thread is passed as near to the edge as possible. It is then passed into the subconjunctival tissue at the corneal side of the wound and outward, including the conjunctiva, to the extent of less than one millimeter. The thread is tied so as to graduate the tension, bringing the tendon forward sufficiently to guard against exophoria while preserving the required relaxation.

This procedure, when required, should be made with the finest of thread and with the most extreme delicacy of manipulation.



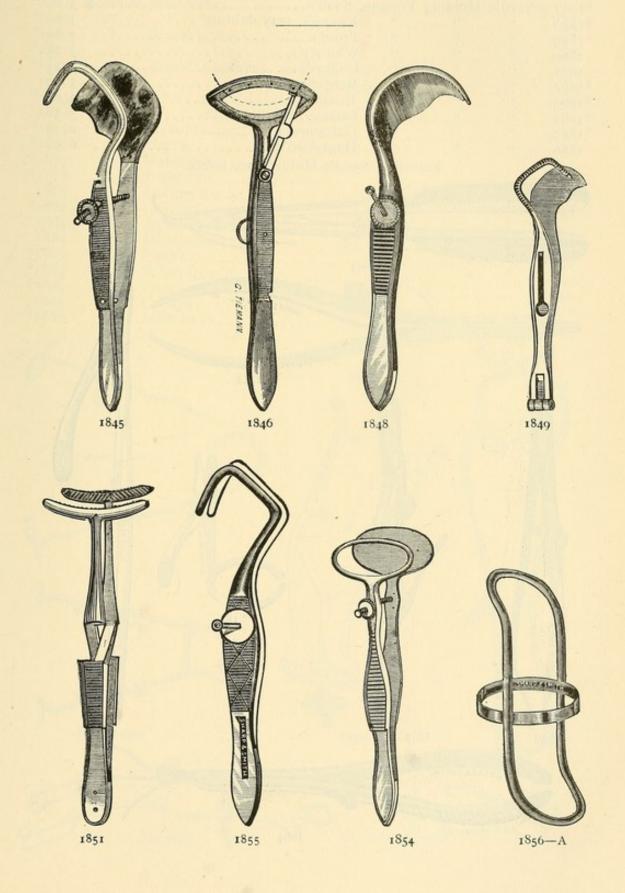
1825

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				EYE	INST	RUM	ENTS					
FIG.				100000000		17.00						
*1817	Strabie	mue	Fore	ens	straight						8:	10
	Strabis	sinus	TOIL	cps,							W	
1818			1000		curved.				• • • • • •		I	10
*1819	Iris Fo	orceps	s, Lei	brich	s Rotat						3	00
1820	44			"	"	lates	t				4	25
*1821	46	66	str	aight.							ī	10
*1822	66	44									0	10
* 0	"	**									1	
*1823											1	25
*1824	44	"	Fis	scher	S							90
*1825	44	66	Wa	alton's	Self H	olding .					1	85
1826	Fixatio	on Fo	rcen	s. No	ves' Cur	ved					T	IO
1827	**		"	,	" with	enring					-	50
	- 14		66		. WILL	spring					1	-
1828						slide.					2	25
*1829	"		"	Du	dley's						2	25
*1830	"		"	De	la Roos	a's					1	50
*1831	44		66	Gra	efe's						T	50
*1832	"		"	Car	ron de l	Villard?					2	-
8.0.	"	-	1 70.								-	25
*1833		and	a ru	mor 1	rorceps.						1	15
*1834	Conjui	nctiva	For	ceps,	Noyes'						2	50
1835	Adhes	ion		"	curved						1	50
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All instruments designated by a * are illustrated.

FIG.		EYE	INSTRUM	MENTS.			
*1836	Blitz' Extirna	tion Forces	ne			00	25
*1837	Hanry's Dani	lating "	,5			Φ2	25
*1838	Cilia Forsepa	iating				1	75
11030							75
*1839							40
*1840				embranes			25
1841	Noyes' Eyelic	Clamp Fo	rceps			I	
1842							25
*1843	Eye Spray, ha	rd rubber					50
*1844							60
		For oth	er Sprays, se	ee Index.			
*1845	Entropium F	orceps, Sne	llen's			2	00
*1846	"	" T. 8	Co.'s, with	knife			25
*1847	- "	" Kna	pp's			3	00
*1848	"	" Laur	ence's			2	50
*1849	46	" Pron	t's reversible	e		2	60
1850	"	" Plair)			-	50
*1851	66	" Cros	e Bar			-	
1852	66						75
	**	" Dosr	narra'a Chal			2	25
1853	"	" Desi	naries sher	l			25
*1854	"	" Nov	meta	ļ			25
*1855		" Noye	es, with shi	de catch			85
1856	01 0 0 1					I	85
*1856A	Sharp & Smit	h's Ring Li	d Elevator.				50
SHARP & SHITH			THE LAKE DETWEET THE PARTY OF T	The state of the s	BHANG & GANDE		

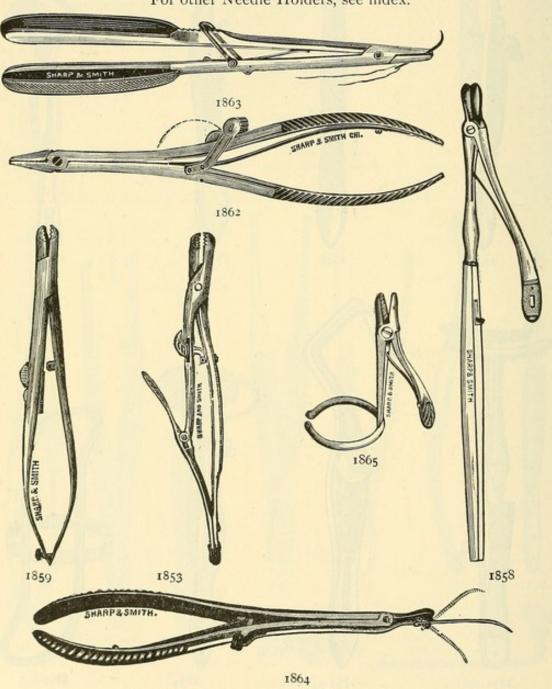
EYE INSTRUMENTS.



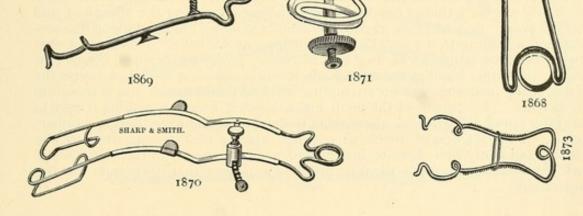
EYE INSTRUMENTS.

FIG.						
*1857	Needle	Holding	Forceps,	Sand's	3	00
*1858	"	"	**	Knapp's, very delicate	4	00
*1859	"	66	"	Prout's	2	60
1860	66	**		Whitney's	3	25
1861	**	**		Collins'	3	25
*1862	"	"		Renier's	3	00
*1863	44	46		Russian	3	00
*1864	44	4.6		Paris	3	50
*1865	66	66		Galezowsky's	2	25
1866	"	66		Hagedorn's	6	00

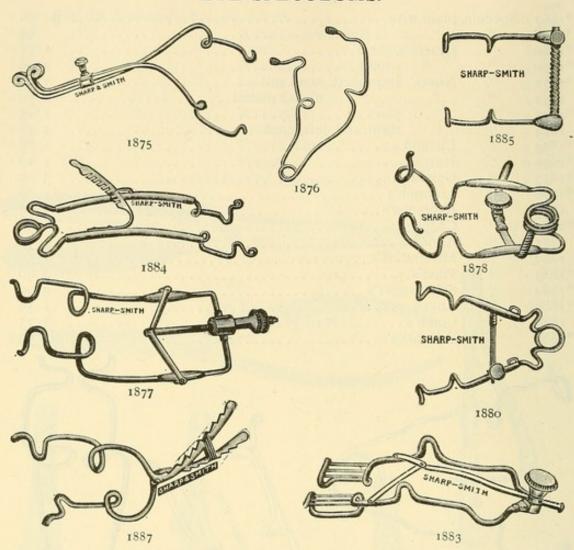
For other Needle Holders, see index.



EYE INSTRUMENTS. FIG. *1867 Specula, plain wire..... 50 *1868 50 *1869 Graefe's, short..... 1 75 *1870 long 2 00 Improved, steel gilt.... *1871 3 00 66 nickel plated..... 1872 2 50 *1873 1 25 1874 right and left, each..... 75 *1875 Liebold's..... 66 *1876 Hart's..... I IO *1877 44 3 00 66 Liebrich's *1878 1 50 1879 Laurence's..... 2 25 *1880 66 1 50 1881 66 3 75 66 1882 50 *1883 4 00 *1884 3 00 Schweigger's 66 *1885 Luer's..... 1 50 66 1886 1 75 *1887 Schwatka's.... 1 50 SHARP & SMITH. 1867



EYE SPECULUMS.

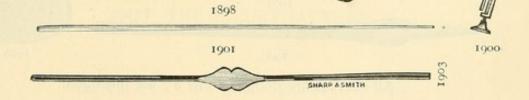


This Speculum (Fig. 1887), the invention of Lieut. Schwatka of the United

States army, is well explained by the above illustration.

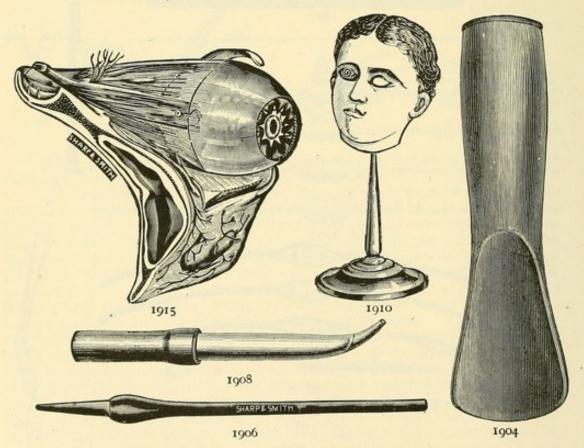
The branches that pass under and clasp the eyelids can be of any of the various forms that may suit the ideas of different operators. It is in the lever branches that open and close the former that the essential novelty of the instrument is found. These levers are reflected back on to the same side as the branches they respectively operate, so that their closure opens the branches, and vice versa. They are serrated on their outer edges, which indentations are made to firmly receive a rubber band that is the power in opening the speculum, and which power may be made variable by simply slipping the band along the serrations according to the well known principles of the lever. It is evident that more than one band can be used and increased power be obtained, but as now made, the single band at the end of the levers is sufficient to almost break the finest made instruments when attempting to close the branches, and is therefore sufficient. The crowns of the teeth are somewhat rounded, making it easy to slip the round rubber band along them to any point, and even during an operation. That fineness of touch so common among oculists, acquired by the manipulation of such delicate instruments as are necessary in their profession, will here materially assist them in properly adjusting this instrument for any operation.

	EYE INSTRUMENTS.
FIG. 1888	Eye Probes, Noyes' Set
1889	" Levis'
*1890	" Theobold's Set of 16 (8 pieces) per set in neat case. 5 or
1891	" silver, delicate 3
1892	" Anel's, silver 3
*1893	" " Bowman's, set of eight, silver 2 1
1594	" " single, silver, two sizes 5
1895	" set of eight, hard rubber, same as Fig. 1873 1 50
1896	single, hard rubber, two sizes 40
1897	Livingston's elastic 1 75
*1898	Williams, set of eight, silver, A and B
*1898	Dilator, Williams, silver, C.
*1898 1899	WW - 1 1 10 1 1 W 11
*1900	Weber's Graduated Dilator 75 Galezowsky's Canaliculous Dilator 1 90
*1901	Bowman's Silver Director 50
*1902	Wecker's Lachrymal Canula 1 29
*1903	Spier's "Catheter, silver 75
	IS90
all land	1892
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	9 9-
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	1893
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EYE INSTRUMENTS.

FIG.			
*1904	Jaeger's Plate Lid Holder, hard rubber	- 1	75
1005	" " shell	1	15
*1906	Alum Pencils		25
*1906	Blue Vitriol Pencils		25
1907	Nitrate of Silver Pencils	I	00
*1908	Hotz' Eye Glass Drop.		10
	Medicine Droppers, per dozen		50
1909	Ophthalmo Phantomes, hard rubber, jointed stand, and face on pivot, two eyes	2	00
*1910		8	50
1911	" plain japanned, movable stand, one eye	6	00
1912	Glass Eye Baths		25
1913	Thompson's Optometer	1	60
1914	Pupilometer	3	75
*1915		25	00
1916	Camel's Hair Brushes, per dozen		25
1917	Desmarre's Cautery Irons	2	25
1918	Silver Case Caustic Holder, short	I	IO
1919	" " medium	1	50
1920	Knapp's " "		80
1921	Eye Cups		25
1922	Eye Bath Bottles		75
1923	Douche, common		75
1924	" H. R. stop cock (see Fig. 1843)		50
1925	" Agnew's		25
1926	Eye Shades, single, small		20
1927	" " double "		25
1926	" single, large		25
1927	" " double, "		35
	Artificial Eyes, all styles (see page 387.)	5	00
	Price to Patients, \$10,00 each.		

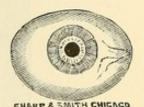


All instruments designated by a * are illustrated.

HEADQUARTERS FOR FRENCH AND GERMAN ARTIFICIAL EYES.







We have on hand a large assortment of colors, forms and sizes, for the right and left eye, from which personal selections may be made, or we can send them by express; but as the success of being well matched depends on the exactness of the description and the minuteness of adaptation and accommodation of the Artificial Eye to the remains of the natural one, we advise patients to apply to their physician and have him send us the following particulars:

- 1. Right or left eye.
- 2. Diameter of the iris of the well eye.
- 3. Normal diameter of the pupil.
- Degree of atrophy of globe in comparison to well eye.
- 5. Form of anterior of stump, flat, round or conical.
- 6. Partial or entire presence or absence of cornea remaining transparent.
- 7. Depth of furrow behind lower lid.
- 8. Sex and age of patient.
- A drawing (natural size) representing accurately the eye region of both eyes, the color of the iris and sclerotica (or a minute description).

Price to Patients, - \$10 00.

IN ORDERING GOODS

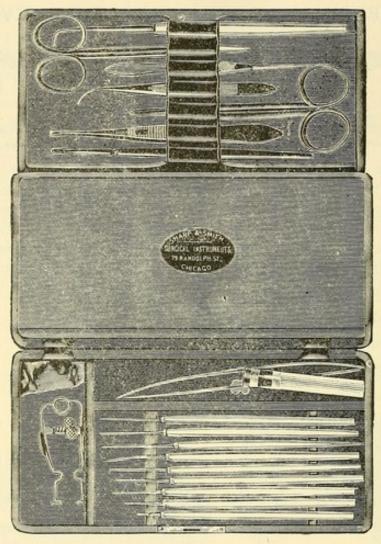
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OUT THE ILLUSTRATIONS.

SHARP & SMITH.

EYE CASES.



1928

Fig. 1928.—Dr. W. F. Montgomery's Eye Case contains:

I Gallante's Eye Speculum. I Graefe's Narrow Cataract Knife. I Large Angular Keratome. 1 Cataract Needle. I Noye's Canaliculous Knife. I Lens Spoon.

Pair Curved Iris Forceps. " Iris Scissors.

" Tenotomy Scissors, (Strabismus). 1 Set Bowman's Probes, 1 to 8. Desmarre's Entropium Froceps.

2 Strabismus Hooks.

I Graefe's Cataract Knife. I Small Angular Keratome.

r Plastic Scalpel.

I Stop Cataract Needle. 1 David's Rubber Spoon.

Pair Spring Catch Fixation Forceps. " Tenotomy (Strabismus) Forceps.

" Optic Scissors.

1 Whitney's Needle Holder. 1 Pair Heavy Curved Scissors.

Needles and Silk, in fine Morocco covered Velvet lined case, \$32 00

This case can be had modified in any way desirable. The case as it now is, is sufficiently small to be carried in the hip pocket.

Any desired case put up to order, adding any instruments that you may have on hand.

EYE CASES.

Fig. 1929. EYE CASE, No. 5, CONTAINS:

Beer's Knife; Curved Needle; Iris Needle; Forceps; Scissors, fine-pointed, curved on the flat; Wire Speculum; Strabismus Hook; Dix's Hook; Dix's Spud; Silver Probe; 3 Suture Needles; Fine Silk; Tyrrel's Sharp Iris Hook; Daviel's Curette. Morocco case, lined with silk velvet.

Price.....\$ 12 75

Fig. 1930. SHARP & SMITH'S EYE CASE, No. 4, CONTAINS:

I Beer's Knife; I Keratome or Artificial Knife; I Dix's Spud; I Curved Needle; I Straight Needle; I Pair Iris Scissors, straight; I Pair Strabismus Scissors; I Strabismus Hook; I Wire Speculum; I Parker's Fistula Lachrymalis Knife; Tyrrell's Blunt Hook; Silver Probe; I Critchett's Lens Scoop; I Pair Forceps; 6 Suture Needles; Fine Silk. In a Rosewood case, lined with silk velvet.

Price..... \$ 18 00

Fig. 1931. SHARP & SMITH'S EYE CASE, No. 3, CONTAINS:

Fig. 1932. SHARP & SMITH'S SET OF STRABISMUS INSTRUMENTS, No. 2, CONTAINS:

1 Pair Strabismus Scissors; 1 Pair Strabismus Forceps; 1 Double Hook; 1 Strabismus Hook; 1 Wire Speculum. In a neat morocco case.

Price...... \$ 6 25

Fig. 1933. SHARP & SMITH'S EYE CASE, No. 1, CONTAINS:

I Curved Couching Needle; I Strabismus Hook; I Beer's Cataract Knife; I Double Hook; I Pair Curved Forceps; I Pair Strabismus Scissors; I Wire Speculum. In a neat morocco case, lined with silk velvet.

Price \$ 9 00

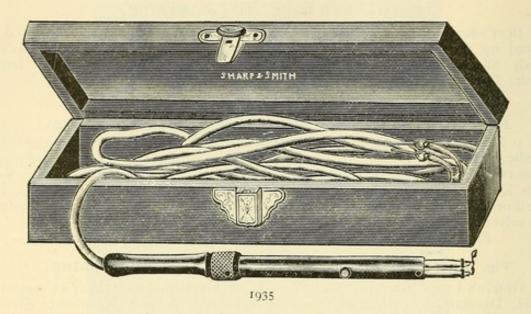
Fig. 1934. NOYES' EYE CASE, CONTAINS:

2 Desmarre's Eyelid Retractors, large and small; I Wire Speculum; I Noyes' Canalicula Knife; I Set Bowman's Probes, silver, Nos. I to 8; I Small Scalpel; I H. R. Dental Syringe; 2 Strabismus Hooks; I Pair Straight Iris Scissors; I Pair Curved Iris Scissors; I Pair Fixation Forceps; I Dissecting Forceps; I Dix's Spud; I Spatula; I Straight Iridectomy Knife (Keratome); I Angular Iridectomy Knife; I Short Iris Forcep; I Large Curved Iris Forceps; I Tyrell's Blunt Hook; 2 Straight Decision Needles; I Graefe's Linear Knife, wide pattern; I Small Sharp Iris Hook; I Pair Prout's Entropium Forceps; I Cystotome and Curette; I Sands' Needle Forceps; 2 Graefe's Linear Knives; I H. R. Spoon; I Critchett's Lens Scoop; 6 Small Curved and 3 Straight Suture Needles, and Fine Silk. In a fine Rosewood, brass bound case, lined with silk velvet.

Price.....\$ 49 50

Any style of case made to order.

EYE INSTRUMENTS.



A Perfection Cautery Handle for Eye Operations.

By F. C. Hotz, M. D., Attending Surgeon at Illinois Charitable Eye and Ear Infirmary, Chicago, Ill.

The use of the Electro-Cautery on the eye requires an instrument which allows easy, quick and delicate manipulations. All these conditions are found in the Cautery Handle represented above. It was made for me by an instrument maker in Berlin, Germany, and has proven its merits in many cases during the three years I have tried it.

Made of hard rubber, it is as light as a pen holder; the little button for closing the circuit responds to the slightest touch of the finger so readily that the position of the instrument is not disturbed at the moment the current is closed and the loop heated, and therefore we can easily keep the point of the loop in contact with the *very point* of the cornea we wish to cauterize; and the cable cord is so light and flexible that it does not impede the free and easy handling of the instrument.

These Cautery Handles and Cords are now made in this Country by Sharp & Smith, 73 Randolph Street, Chicago, Ill.

PRICE. - - \$10.00.

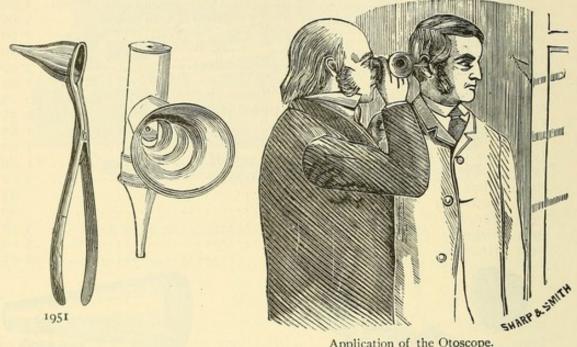
For Dr. Hotz' Ear Instruments, see "Supplement" at end of Book.

1947

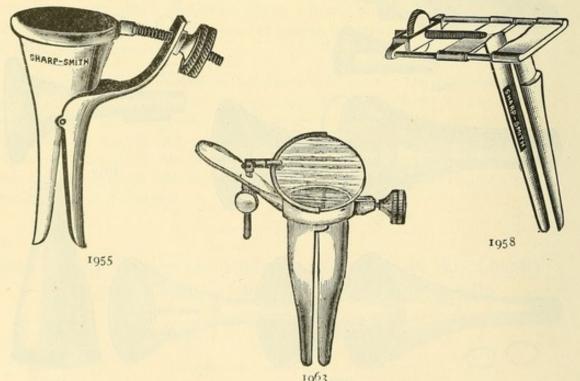
EAR INSTRUMENTS. *1940 Ear Specula, set of 3 in case, H. R.... *1941 3 silver..... 3 00 " 1942 3 1 50 46 Toynbee's" H. R.... 1943 3 *1944 3 silver.... 3 00 1945 " plated..... 3 1945-A Hotz's H. R 1 00 3 66 66 1945-B silver..... 3 00 66 46 *1945-C " plated.... 2 00 3 66 Gruber's " H. R..... 1 50 1946 3 *1947 silver.... 3 00 66 " pla d..... 2 00 1948 66 66 66 Sexton's " *1950 " 2 25 3 *1951 Kramer's Bivalve Ear Specula, nickel plated, 3 sizes.....each 1 50 " with set screw..... 1952 1 85 Bivalve 1953 I 00 Knapp's Tubular " 66 3 in set, H. R..... 1954 I 20 Spiers' Self-Retaining Ear Specula.... *1955 Glass Mirror 1956 35 Porcelain 1957 40 *1958 Fergen's 3 50 Siegele's 1959 3 00 Hudson's 1960 SHIRR & SMITH 1940 1941 1950 1945-C SMARP, SMITH

All instruments designated by a * are illustrated.

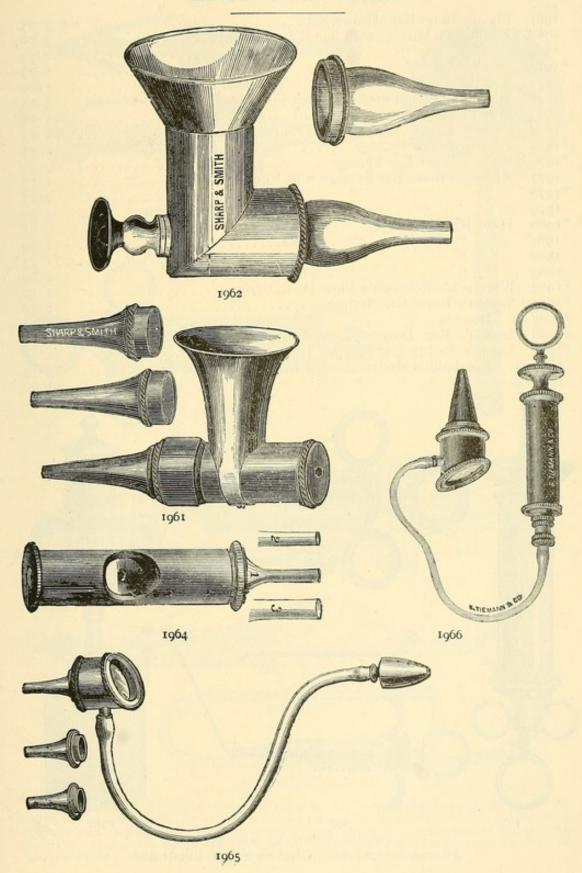
1. 1.414						
*1961	Brunton's Otoscope.				 	\$4 50
*1962	Clark's ".				 	7 50
*1963	Simrock's " w	th Lens.			 	3 50
*1964	Hassenstein's " th	ree Tips.			 	3 50
*1965	Siegele's Aural Otosc	ope			 	3 00
*1966	Ely's modification of	Siegele's	Otoscope	2	 	5 25



Application of the Otoscope.



See next page for balance of Otoscopes.



EAR INSTRUMENTS. FIG. 1967 Troeltsch's Mirrors with handle, 3 inches..... 1968 3 00 " " 2½ " 1969 2 50 *1970 2 25 and head band, extra..... 1971 Mirrors, Ball and Socket, 2 inch with Head Band and Handle. 1972 3 25 Miller's Lamp..... 1973 11 00 *1974 Collins' Lamp..... 5 25 Pomeroy's Ear Syringe..... *1975 2 75 *1976 Blake's Inner Ear Syringe.... 1977 " " Large I 75 *1978 2 25 Ivory Nozzle..... 1979 2 50 66 *1980 Hard Rubber I OZ..... 65 66 66 1981 2 OZ...... I 50 66 3 OZ..... 1982 I 75 66 4 oz, two tips..... 1983 2 00 *1984 Wheelock's Reversible Flow H. R. Syringe...... 1 50 *1985 Sexton's Inner Ear Syringe..... 7 50 *1985-A. Roosa's " Continuous Flow..... 6 50 1986 Sexton's Ear Douche..... 4 50 *1987 Lncae's Reflux Ear Syringe, Hard Rubber..... I 00 1987-A. Rumboldt's Modification of Lucae's Douche..... 3 75 1987-B. tube only.... STATE SECTION 1985 SHARP& SMITH

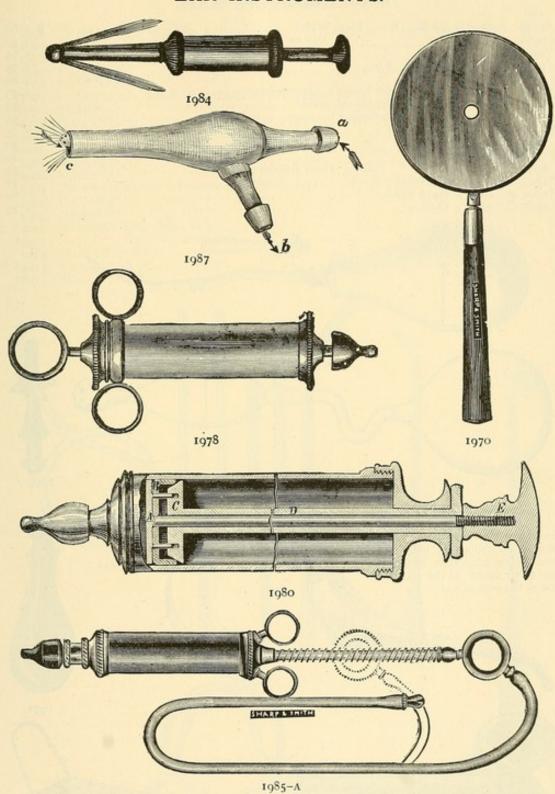
For other Syringes see next page.

All instruments designated by a * are illustrated.

1974

1976

1975

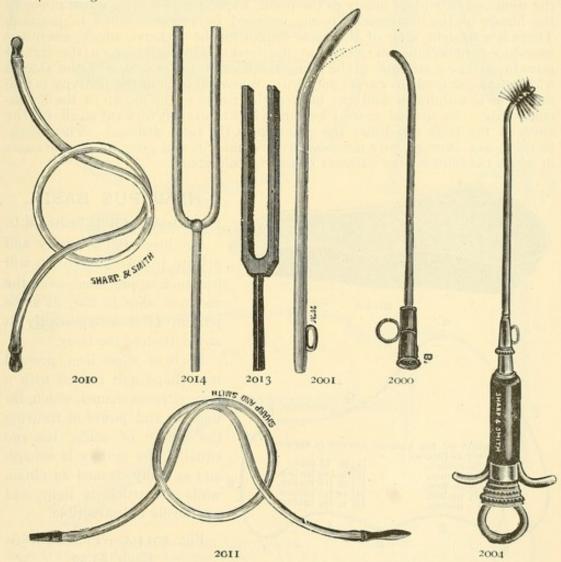


By means of this Syringe a continuous syringing of the ear is effected, doing away with the old process of refilling the syringe. By virtue of the spiral wire around the piston rod the piston is forced back automatically, the syringe filling and emptying by an arrangement of valves in the piston, and through the hollow piston-rod which communicates with the reservoir, by means of the rubber tubing, thus creating a continuous flow.

EAR INSTRUMENTS.
*1988 Politzer's Air Bag, 6 oz., Plain White.
1988
1994. Ear Spout. The illustration does not show, as it should do, the entire length of the rubber tube that conducts the water spout to the receptacle at the patient's side.
1994 1993
905 I 1904-B

All instruments designated by a * are illustrated.

E LOS													
1996	Virgin Silver	Eustachian	Cathet	er				 	 	 	 . 8	1	00
1997	Noves' "	44	44					 	 	 	 	1	85
1998	Coin "	44						 	 	 			(0
1999	Plated "	44	44					 	 	 			60
*2000	Hard Rubbe	т	**					 	 	 			50
*2000-	A Ferguson'	s Soft Rubb	er Eust									I	50
*2001	Rumbold's	17 11											00
2002	Spier's Eusta	chian Cathet	ter										go
2003				Rubber								2	25
*2004	Levis '	4 44	44	Hard I	Rubber	Syrin	ge	 	 	 			50
2005	Bonafont's '	4 41	Hold	er									FO
2006	Stark's '											3	co
2007	Pomeroy-K	ramer's Eust	achian									2	50
2008	Fullgraf's			pray									50
2000	Hackley's	**											85
*2010	Toynbee's D	iagnostic Tu											60
*2011		xplorer, to fi											60
2012	Clark's Ear												40
*2013	Tuning Fork												55
*2014	Tuning Fork											1	15
-014	Tuning Tori						_						

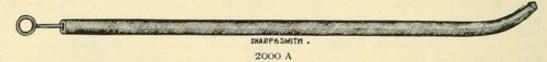


All instruments designated by a * are illustrated.

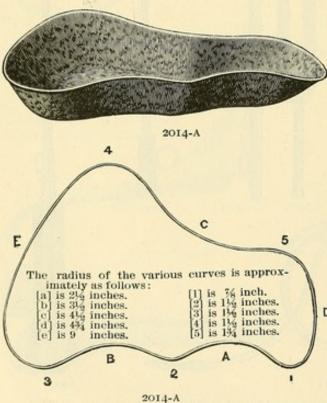
An Improved Form of Eustachian Catheter.

By H. Lindo Ferguson, F. R. C. S. J., Dunedin, N. Z.

In order to overcome the difficulty of passing an Eustachian catheter in cases where the inferior turbinated bone or a displaced septum encroaches on the nasal passage, and to avoid giving pain to the patient when the nasal mucous membrane is much swollen and sensitive, a soft rubber catheter might be used, fitted with a straight style, on withdrawal of which the catheter would resume its curve.



The catheter is of the ordinary shape, and is of soft red rubber, having inside the stem and extending nearly to the point, a spiral of fine wire, which prevents the lumen of the instrument being lessened by pressure when in position. There is a straight style of the same length as the catheter, which, when it is introduced, obliterates the curve at the beak. The catheter on the style is introduced like a straight probe along the floor of the nostril, with the side to which the beak tends to curve, outward. When the back of the pharynx is felt, the style is withdrawn and the beak curls around to the mouth of the Eustachian tube. In several cases I have not had to draw it forward at all, for the curve of the beak withdraws the point about the right distance. The instrument passes through very much obstructed nostrils and gives no pain in cases in which the hard rubber catheter cannot be tolerated.



For other Pus Basins, see page 405.

NEW PUS BASIN.

From Design of H. L. Smith, M.D.

For hospital, dispensary and private practice, this basin will be much appreciated over the common ones in use, as some portion of it will perfectly fit any portion of the body.

Made of sheet iron, pressed into shape and coated with a pure vitreous enamel, which, for tenacity and power of resisting the action of acids, has no equal. The surface is smooth and as easily cleaned as china, while the article is light, and practically indestructible.

Fig. 2014-A — Pus Basins— Each \$1.50.

2020

EAR INSTRUMENTS.

FIG.								
*2015	Buttles' Iodine In	nhaler					 8	I 00
2016	Pomeroy's Glass							40
*2017	Rumbold's Inject	or					 	I 00
*2017-	A " Curve	ed Inject	or				 	I 00
*2017-	A " Curve B " Acou-	Otoscop	e				 	I 85
*2018	Knapp's Powder	Blower.					 	I 00
*2010	Wilde's Ear Garg	ret					 	I 00
*2020	Gooch's Double	Polypus (Canula for	removing	polypi,	silver	 	I 75
2020-	A " "	**	**	**		plated	 	I 00
2021	Gooch's Double	64	**	44	44	"	 	I 25

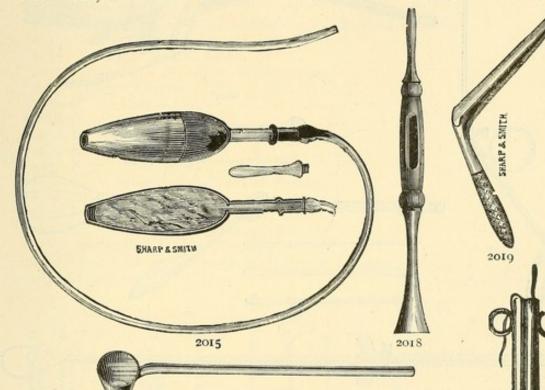


Fig. 2017-B.—Acou-otoscope. An instrument to enable the examiner to see the membrana tympani, and *hear* the effect of the inflation of the Eustachian tube at the *same time*.

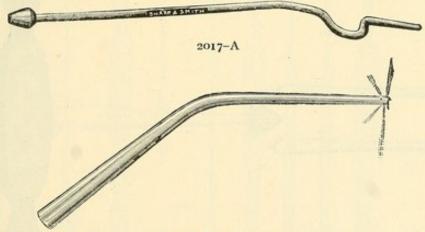


Fig. 2017.—Rumbold's Small Ear Injector. This illustration is a little larger in diameter than the instrument itself. All of its streams are recurrent and very fine.

*2022	Blake's	Polypus	Snar	e							\$2	75
2023	"	"	66	with	three	assorted	1 Canul	as	and	one	*	, ,
	Tymp	oanum Pe	erfora	tor, in	case.						6	25
*2024	Wilde's	Polypus	Snare								2	50

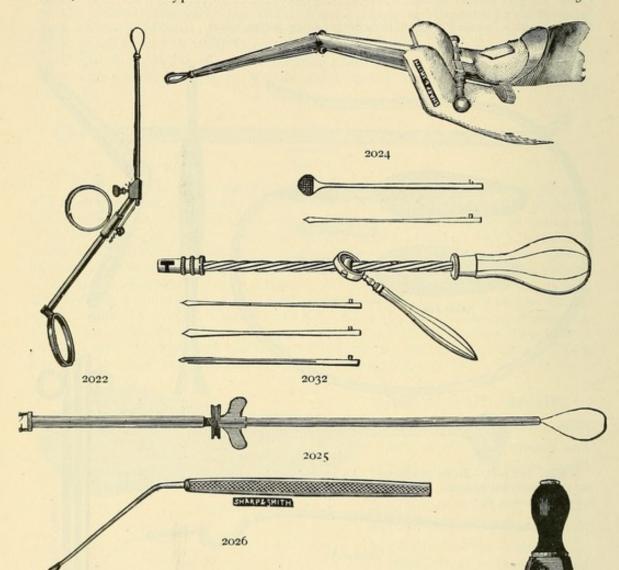
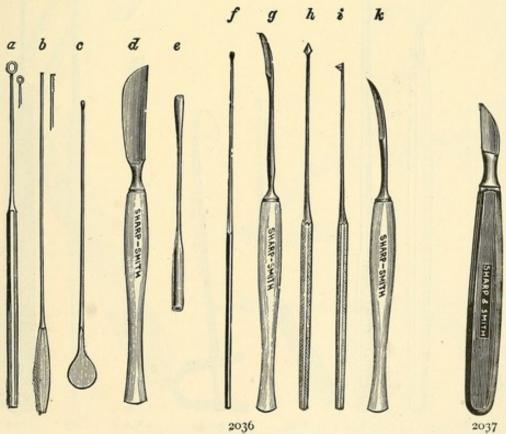
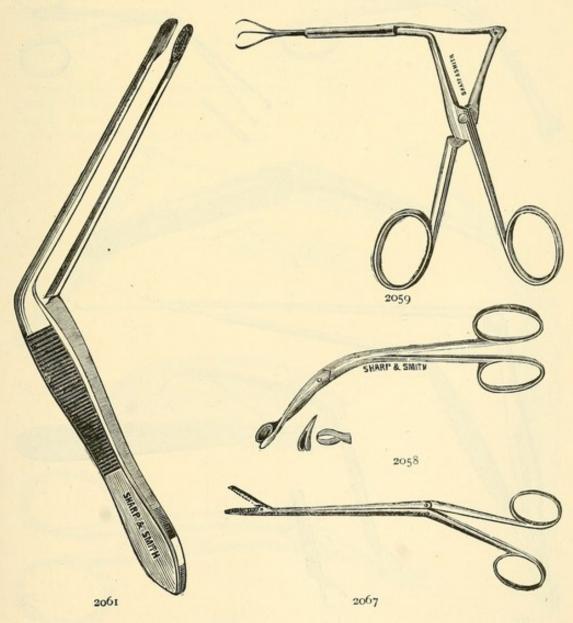


FIG.														
*20:		Jarvi	s' Poly	pus S	Snare	, strais	ght.				 	 	 . \$2	25
	25-A				66									75
*202	26	Polit:	zer's T	'ympa	anum	Perfe	orato	r, ang	gular		 	 		75
201	26-A									Ivory				10
20:	27	Prou	t's	**		-66								10
20:	28	Nove	s'	66		66					 	 	 . 1	10
20:		Blake		"		**						 	 . 1	10
20			er's T	ensor	Tyn	npani	Instr							25
20		Webe		66										
*20			with	Guar	d for	perfo	ratin	g the						75
*20	33		's Dril		66	P	16		66					
20			zer's N											15
20		Grub		- 66	- 66	Sick	le si	ane.						20
			c's Cu	rette		0101		apo.						55
*20	36-B	"												35
*20	36-C	- 66												60
*20°	36-D					oid Pi								10
	36-E					S								10
*200	36-F	"												60
#200	36-G	. "				urved								15
*20	36-H	**												75
*20	36-I	"												00
*200	36-K													
*203						Curved								
0.00			ett's K											15
203			s Rong		r orce	:ps 101	Ma	stold	1100					25
203	59	ranc	I Goug	Se							 • • • •	 	 . 1	15
										-				



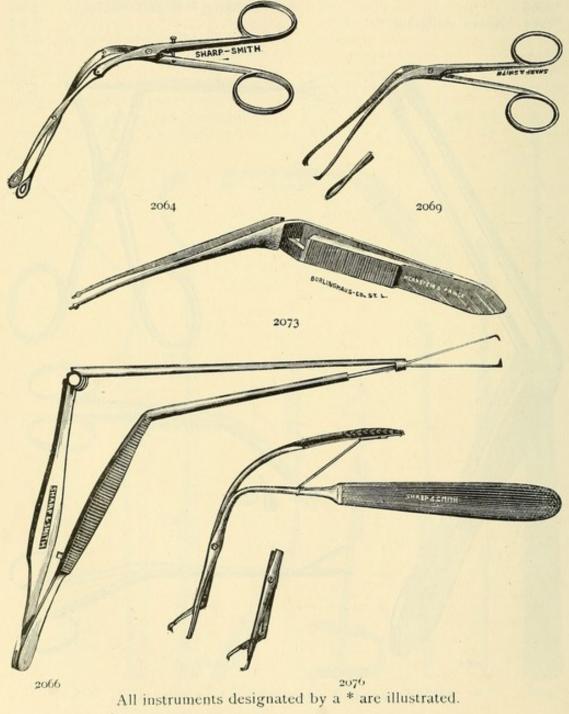
		EA	R INSTR	UMENTS.			
*2040	Angular Ear	Hook.					\$1 10
2041	Devil's Screv						I 10
2042			r				60
*2043			robe				50
2044	Hard Rubbe						20
2045	Whalebone		"				15
2046	Plain Silver						50
2047	Fenestrated	Ear Sco					1 15
2048	Civiales						3 75
2049	Politzer's Ha	ard Rub	ber Scoop	• • • • • • • • • • •			75
*2050		poon an	d Hook				50
*2051	colony France		Spud				55
*2052	Spiers Ear C		Spiral				75
*2052- *2053	Quiers' "		d Spud				I 10
*2054	Elastic Caust		lor				2 00 1 50
*2055	Politzer's Ey	relet Fo	reens for in	troducing E	velets in		1 50
2033			npanum			\$1 20	ıñ
2056	Toynbee's A						
A	,	commerc				3	A
			-				- 1
1			G. TIEMA	NN & CO			1
							-
		1		2055			1
		1		2055			1
		-				0	1
						1	1
						1	1
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	V				0		1
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		E			188	1	Y///
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							77700
	2040	2052	2043	2053	2052-A	2050	2054
		-		200			

	 \$1	10
,	 1	75
		25
٠.	 1	10
	 1	10
	 1	50
		00
	 3	25
		75
	 3	00
	3	25
	 	1 3 3 3



All instruments designated by a * are illustrated.

FIG.																	
2068	Bumstead's Canulated	Ear	Forceps	i .											\$3	00	
*2069	Pomeroy's	"	66		 										I	85	
2070	Toynbee's Angular	- 66	66		 										I	25	
2071	Roosa's	- 66	44				 								I	25	
2072	Mathieu's	46	4.				 								3	25	
*2073	Rumbold's Eyelet	44	44				 				 				-	60	
2074	Tiemann's	66	"		 										3	75	
2075	Wiers'	"	66				 				 					25	
*2076	Duplay's	"	"				 								8	00	



	EAR II	NSTRUMENTS.	
FIG.	For Coissons	o	
*2077 Gruber's	Ear Scissors		3 00
*2078 Jarvis'			4 50
*2079 Simrock's		1 11	3 30
		d, small	90
*2080-A " "		medium	1 10
2080-B " "	" "	large	1 25
2080-C" "	" "	triangular, small	I 75
2080-D" "		" medium	2 00
2080-E" "		" large	2 25
2081 " "	Hard Rubbe	er, small	75
2081-A " "		medium	1 00
2081-B " "	**	large	1 25
2081-C " "	" "	triangular, small	I 00
2081-D " "	" "	" medium	1 25
2081-E " "	"	" large	1 50
2082 " "	Papier Mach	ne, small	40
2082-A " ""	. " "	medium	55
2082-B " "	** **	large	75
	is Basins, see pa		13
		er, steel	35
2084 Spiral	" "	.,	50
	hher Cotton C	arrier	50
2005 Haid Re	ibbei cotton ea		20
	2078		
0	2080-A		

All instruments designated by a * are illustrated.

DIAGNOSTIC AND OPERATING EAR CASES.

	Dr. A. H. Buck's Pocket Ear Set\$		
	Dr. Samuel Sexton's " "		
2088	Roosa's Ear Case	37	50
	Dr. A. H. Buck's Operating Case		

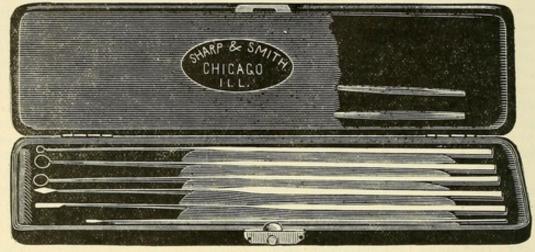


Fig. 2086. DR. A. H. BUCK'S POCKET EAR SET, CONTAINS:

3 Plain Fenestrated Scoops.

Tympanum Perforator. 2 Holcomb's Cotton Carriers.

Put up in a fine morocco case, 6 ½ inches long, 15% inches wide, ½ inch deep.

Fig. 2087. DR. SAMUEL SEXTON'S POCKET EAR SET, CONTAINS:

- I Blake's Ear Snare, with tympanum I Pure Silver Probe. perforator.
- 2 Abscess Knives.
- 1 Universal Handle for Knives, etc.

I Silver Probe.

- I Tensor Tympani knife.
- I Granulation Knife or Hoe.

In morocco covered velvet lined case.

1 Tenotome.

Fig. 2088. EAR CASE, BY D. B. ST. JOHN ROOSA, M. D., CONTAINS:

- 1 Roosa's Mirror, with head band and ½ Dozen Artificial Ear Drums. handle.
- 1 Set Gruber's Ear Specula.
- Rhinoscopic Mirror.
- I Green's Tongue Depressor.
- 1 Blake's Ear Snare, with tympanum perforator.
- Pair Wilde's Angular Ear Forceps.
- r Glass Acid Rod.
- 2 German Silver Eustachian Catheters.
- Politzer's Apparatus, with Roosa's attachments.

- 1 Tape Measure.
- r Scalpel, fine ivory handle.
- I Bistoury, "
- I Conversation Tube.
- 1 Hard Rubber Ear Syringe.
- 1 Tuning Fork, C.
- I Diagnostic Tube.
- 1 Hard Rubber Eustachian Catheter, for a child.
- 1 Cotton Holder.
 - Put up in a neat morocco case.

Fig. 2089. DR. A. H. BUCK'S OPERATING EAR SET, CONTAINS:

- 1 3 inch Mirror, with head band.
- 1 Pair Delicate Angular Forceps.
- I Set of Drills, with sharp edges.
- 1 Set (4) Wilde's Silver Ear Specula.
- Blake's Ear Snare, with pure silver canula.
- I Extra Fine Ivory Handled Sharp Curved Bistoury.
- I Extra Fine Ivory Handled Blunt I Middle Ear Probe. End Curved Bistoury.
- I Extra Fine Ivory Handled Scalpel.
- 1 Myringotome.
- 1 Furuncular Knife.
- 2 Curettes, steel handles.
- 4 Cotton Carriers, steel handles, assorted sizes.
- 1 Porte-acid Glass, with platina applicator.

Other Ear cases put up to order.

APPARATUS FOR ASSISTING THE HEARING.

DATIENTS! DDICES

PATIENTS' PRICES.								
FIG. C. T. I. T. C. T. C. II	Jap.							
2090 Conversation Tubes, 5 feet, Silk								
*2091 " Conical, 3 feet, Silk	6 00							
2091-A " " 5 " Mohair	7 00							
2091-В " " 3 " "	5 00							
*2092 " Straight, 3 " Silk	4 00							
2092-A " " " Mohair	3 00							
*2093 Dipper Ear Trumpets, large	6 00							
2093-A " " medium	5 00							
2093-B " " small	4 50							
and Injusted " " "		N. P.						
2094 Jointed	3 50	\$5 00						
*2094-A " " medium medium	4 00	6 00						
2094-B " " large	5 00	8 00						
2095 Bugle Shape Ear Trumpets, large	4 00	6 00						
*2095-A " " medium medium	3 00	4 50						
2095-B " " " small	2 50	3 50						
2096 London Hearing Horns, large	5 00							
*2096-A " " medium	5 00							
2096-B " " small	4 00							
The London Horns furnished in Nickel Plate or Black at								
same price.								
*2097 Leather Covered Auricles	4 00							
2097-ASilk " "	5 00							
*2098 Silver Cornetsper pair.	3 00							
2099 " " connected with wireset.	4 00							
*2100 Artificial Tympanumeach.	25							
*2101 Apparitor Aurisper pair.	6 00							
Toppartor realistic transfer pair.								

DEAFNESS AND ITS CAUSES.

APPLIANCES FOR ASSISTING THE HEARING.

Sound is the result of any impulse conveyed by the undulations of the air to the organs of hearing, which are so constructed as to receive these undulations, and so organized as to become sensible of them, and to convey the impressions to the brain. These organs consist, first and essentially, of a special nerve expanded on membranes and endowed with the property of sensibility to the impression of sound; secondly, of a physical apparatus fitted for receiving and conducting these impulses in their course to the sentient nerve. We may divide the ear into an external, middle and internal portion. The external comprises the auricles commonly called the ear, and the external opening or tube. The middle ear consists of the tympanum or drum, with the ossicular auditus. The internal, or true ear, is termed the labyrinth, and comprises several parts, among which are the auditory nerves, or cochlea. The mechanism of the ear is exceedingly complicated. Although many minute parts compose this organ, yet the seats of disease are few. The drum (membrana tympani), the most delicate portion, is situated near the middle of the tube (Eustachian) which extends from the external opening in the ear to the nose and throat, and forms a partition in this tube, the air on one side reaching the drum from the ear, on the other side from the throat and nose. They lubricate the meatus

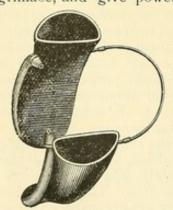
EAR TRUMPETS AND TUBES.

and preserve the suppleness of the lining membrane. The wax prevents the introduction of bodies that may be floating in the air, and by its bitterness and unctuousness prevents insects from penetrating the more delicate parts of the internal ear. It must thus appear that deafness must exist in the state of inaction of either the drum, the nerves, the cochlea, the follicles secreting the wax, or the membranes of the passages of the ear. The diseases which affect hearing are most generally of scrofulous or nervous origin, excepting those which

occur from violence, or the excessive use of powerful drugs.

Noises in the head are caused by colds. The follicles do not perform their functions, and in consequence of the absence of the lubricating substance the formation of scales or scurf (which it is the function of the follicles to prevent) upon the drum of the ear, ensues. This formation prevents this organ from vibrating in response to slight movements of air which in health move it effectually. This formation in the ear decreases the size of the conducting canal, while it covers up the wax glands, which prevents the healthy wax from coming out. Hence arises deafness. The drum is thickened by a formation of scales. These are imperfectly attached by their edges, and slight movements of air rustle them, while violent movements force them upon the drum, and the scales and drum moving together, produce sound. Hence in a mill or railroad car where there is a great noise, you hear even a whisper better than when in a quiet room. In this case it would be well to consult with a physician. But in most cases our Auricle (Fig. 2007) will be, to say the least, extremely useful. This Auricle is made from different metals, so combined as to secure electric power. It is covered with fine morocco, and, that it may not be conspicuous, is connected with a fine steel spring, with sufficient power to press the soft rubber tubes into the ear. A person with long hair wearing an instrument of this construction can wear it without its being in any way conspicuous or inconvenient. It enables the air to have free access to the drum, and by it a circle of electric nerve power is made to connect from one ear to the other externally, and complete the circle through the nerve internally.

Electricity moves in circles, and the nerve power of the human body is electricity. This fact is illustrated by applying the ordinary magnetic battery to the nerve of a cadavera, and it will cause the subject to rise, the face to grimace, and give power to the nerves which have lost their power, and recall



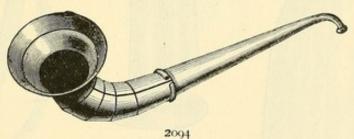
them to life. The Silver Ear Vibrator (Fig. 2099, not illustrated), answers the same purpose as the Auricle in cases of Primary Deafness. Catarrhal Deafness is the result of a cold. Catarrh, as it is usually, is when the lining membrane of the nose is the seat. It commences with a discharge, slight in quantity and of a watery character. As the disease progresses suppuration of the parts takes place, and they iolence of the discharge. When the inflammation reaches the covering of the bones of the nose the discharge is distinguished by its offensiveness, and a further progress results in the destruction of the bones of the nose and closing of the Eustachian tubes. Some are affected in damp or

rainy weather with deafness, and cannot account for the cause. It arises from the thickening of the membrane lining the Eustachian tube. It is evident, too, for the radical cure, you must attack the root of the cause of thickening. This may be done by the use of the Nasal Douche, after the method of Professor Thudicum of London, or by the use of most any style of "Nasal Douche."

EAR TRUMPETS AND TUBES.

By a thorough course of this popular and scientific treatment of Catarrh, the abnormal secretions are caused to pass out through their natural outlets. The discharge from the nose will soon cease, as well as the pain in the temple and the noises in the head, when produced by this cause. If the lining membranes of the throat or nose have lost their sensation of taste or smell, they will speedily yield to this treatment, and be restored to their normal condition. For Catarrh in its incipient stages, Dr. Warner's Catarrhal Syringe has been found very useful. This valuable instrument is the result of long study. The hard rubber tube, which is to pass into the posterior nares, is connected with the soft rubber bag by a piece of flexible tube, so as to enable patients to use it themselves simply by compressing the bulb, thus avoiding the unpleasant sensation caused by using the ordinary syringe for that purpose, as you cannot always feel sure of throwing the injection forward.

In cases of Deafness, where the patient has no organic constitutional trouble, is over forty years of age, and enjoys fair average health, he can only expect to obtain relief by the use of the Ear Trumpet. As age increases the deafness becomes worse. To these persons we recommend our Ear Trumpet (Fig. 2094), japanned or German silver. They can be taken apart, and are sufficiently compact to admit of being carried without inconvenience. This Trumpet magnifies the sound so as to require no raising of the voice, and conversation can be carried on in an ordinary tone.

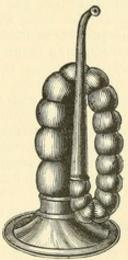


For the benefit of those who desire to hear lectures, attend church or hear public speakers at a distance, we manufacture the Dipper Trumpet (Fig. 2093), with a piece of metal across the bell, perforated with small holes to admit sound. The metal plate acts as an electric conductor in condensing and concentrating sound, greatly vibrating the increased volume of air before it reaches the nerves, thus giving the Trumpet all the more power of increasing sound.



2093

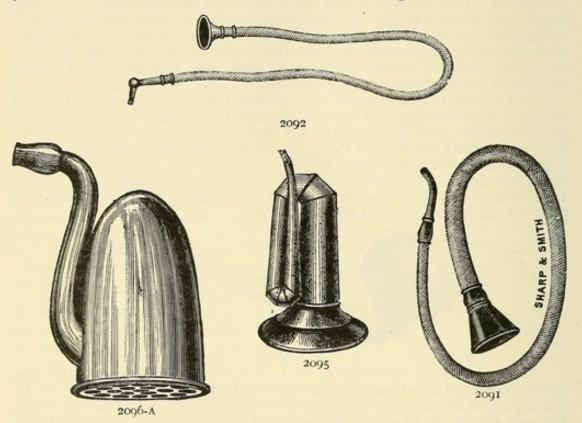
Many persons now supposed to be incurably deaf, might be restored to a respectable degree of hearing—greatly to be desired by themselves, as well as by their friends—by using our Ear Trumpet represented in Fig. 2095A. Corrugated and composed of different metals, it is one of the most powerful Ear Trumpets we manufacture. This Trumpet is of great use where the deafness results from scarlet fever. In many cases the small bones of the ear come away and total deafness ensues.



2095-A

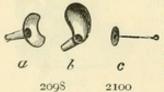
EAR TRUMPETS AND TUBES.

Conversation Tubes (Figs. 2091 and 2092). These we have manufactured expressly for us. They are perfectly flexible, and do not produce an external sound, which is the fault with too many Conversation Tubes. This tube suits the most obstinate cases of deafness, and is particularly convenient at the dinner table and in company, as the wearer can converse in almost a whisper, and private conversation can be carried on without attracting the attention of others.



The most popular of all the Trumpets are the London Hearing Horns (Fig. 2096 A), which are constructed on new and scientific principles, and although they are equally as strong as many of the larger instruments, they answer for those who are moderately deaf, and as they can easily be carried in the pocket and concealed in the hand when in use, they are highly prized by those having them. We have them in black and nickel plated, and in sizes varying from 2½ inches to 4 inches high. The plated ones are finely polished, and present a neat and handsome appearance, while the black ones are preferred by those who wish to conceal them and desire to make as little show as possible.

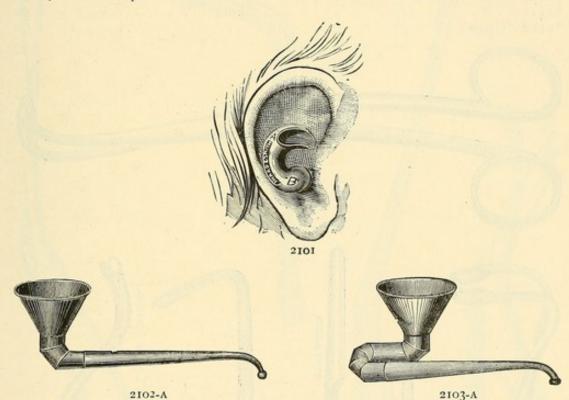
Cornets are the smallest of hearing instruments, and will be found efficient in cases of obstruction of the meatus by reason of contraction or the presence of polypi. As they usually come in contact with tissues that are more or less inflamed, they should always be made from gold or silver. These are shown in Figs. 2098 A and B.



Artificial Tympanums are used to diminish the evil results occurring from perforation of the drum. The Artificial Tympanum is pressed against the remains of the natural one, and the opening thus closed. They are shown in Fig. 2100 C.

EAR TRUMPETS AND TUBES.

FIG. 2102	Jointed	Plain	Ear Trumpet,	Japanned,	small\$	2	00
*2102A	44	66	"	"	medium	2	50
2102B		44	"	"	large		
2103	Double	Curve	"	"	small	2	00
*2103A	44	44	"	"	medium	2	50
2103B	"	44	**	"	large	3	00
2104	Bell Sha	аре	"	44		6	00



The Apparitor Auris is shown in Fig. 2101 A, and is so shaped that it may be worn entirely within the concha, being almost unobservable on account of its close fit and flesh color. The advantage of this instrument over the cornet consists in having the canal elongated so that the waves of sound that enter the aperture are not diffused, but conducted through the meatus to the tympanum.

Those commencing the use of hearing instruments, especially of Trumpet and Auricles, will frequently be disappointed with first trials, and will complain that sounds are confused, but after a short experience they will usually appear natural, and the assistance derived will be so highly valued that the use of artificial aids will not willingly be dispensed with.

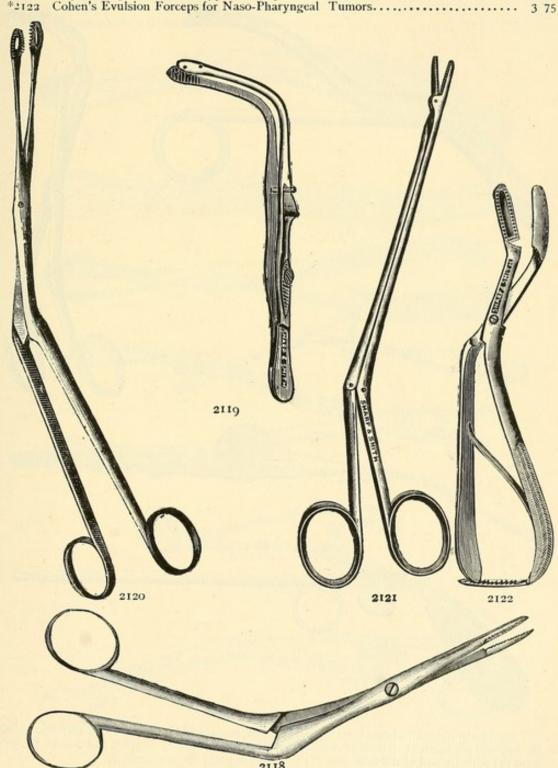
All instruments designated by a * are illustrated.

NASAL INSTRUMENTS. FIG *2105 Brown's Post Nasal Curette Forceps..... 2106 Lowenberg's 3 00 66 Politzer's 2107 3 50 *2108 Cohen's 50 *2109 Cutting 3 00 2110 Stoerck's 3 75 *2111 Wagner's 2 50 Cutting 2112 *2113 Luer's Polypus 9 00 2114 Plain I 00 *2115 1 50 *2116 Gross' 1 60 SHARP & SMITH 2111 Brown's Post Nasal Curette Forceps 2116 2115 2109

Instruments designated by a * are illustrated.

٦	J	AS	AT	IN	JS'	TR	TIT	ME	NTS.
	м.	α		11	40	1 1/		AT T- 1	A T D.

FILE			
2117	Robinson's Pharyngeal	Forceps\$ 3	75
*2118	Knight's Nasal	" 2	25
		" 2	25
	A " Nasal Bone	" 3	00
*2120	Simrock's Polypus	" I	75
*2121	Noyes' Alligator Nasal	Polypus Forceps 4	50
*2123	Cohen's Evulsion Force	ps for Naso-Pharyngeal Tumors 3	75

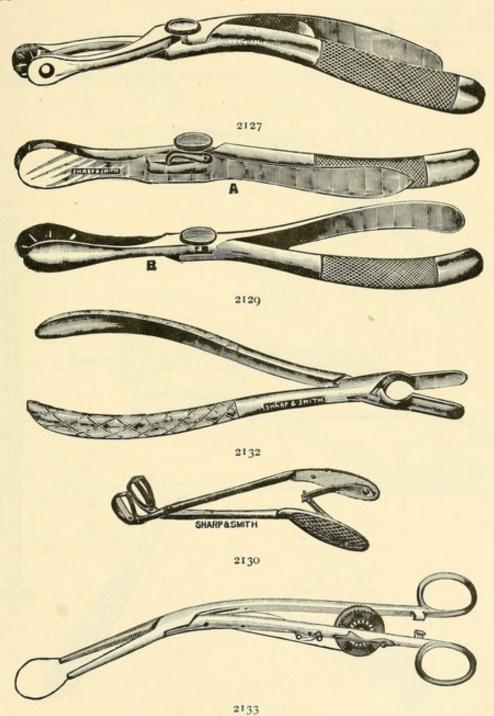


NASAL INSTRUMENTS. FIG. *2123 Jarvis Rongeur Forceps..... *2124 Rumbold's Polypus " Pharyngo Nasal Forceps.... *2125 *2126 McKenzie's Polypus " Snare..... *2126A Penn's Cat Gut Ecraseur SHARP & SMITH 2123 Comminum 2126

For removing small tumors from the nose, fauces, rectum and uterus. Two very small holes through the pin receive the ends of an "E" violin string, which is doubled and passed through from the opposite end of the tube.

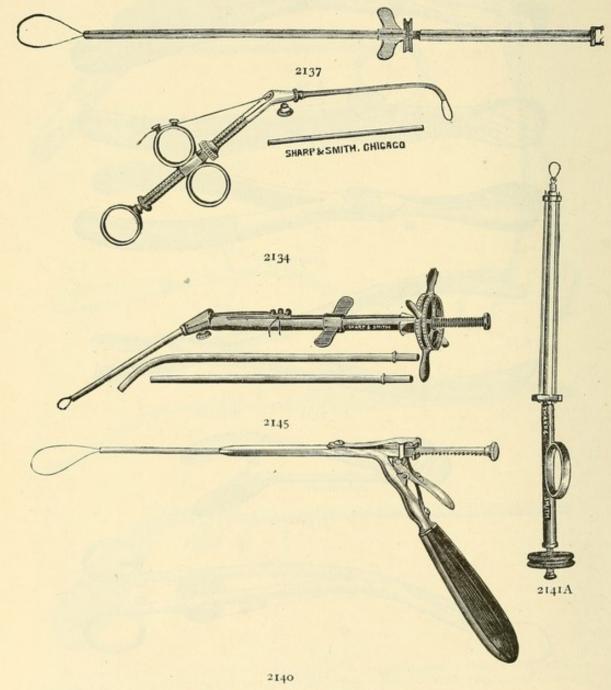
2126-A

F BUS		
	Jarvis' Septum Punch	
	Sajou's (set)" "	
*2129	Steele's " "	 7 50
	Gradle's " Forceps	
	Bosworth's Rhinoplastos	
	Adams' "	
*2133	Goodwillie's Nasal Snare Forceps	 11 25



Instruments designated by a * are illustrated.

F.LO.													
*2134	Boswor	th's Na	asal S	nare.				 	 	 	 	 \$5	00
2135		6											
2136		Se	t of I	Vasal	Snare	s		 	 	 	 	 9	00
	Jarvis'	Nasal	Snare	, stra	ight			 	 	 	 	 2	25
2138	"	"	"	curv	red			 	 	 	 	 2	75
2139	"		"	two	tips.			 	 	 	 	 3	00
*2140	Wyeth's	5 "						 	 	 	 	 9	00
2141	Sajou's	Modif	icatio	n of	Jarvis	Sna	re	 	 	 	 	 2	25
*2141A	Rumbo	ld's	44		"	66		 	 		 		



Instruments designated by a * are illustrated.

NASAL INSTRUMENTS
*2142 Sajou's Polypus Snare. \$6 00 *2143 Allen's " 15 00 2144 Wilde's " 2 50 *2145 Hobby's " 6 75 2146 Green's " 3 50 2147 Ellsberg's " 6 00 2148 Douglass' " 6 75 Ingal's " (page 437) 4 38 Piano Wire for Polypus Snare, " 15 ** Ib. Bunches " 75
F F F G G G G G G G G G G G G G G G G G
SHARP & SMITH
2149

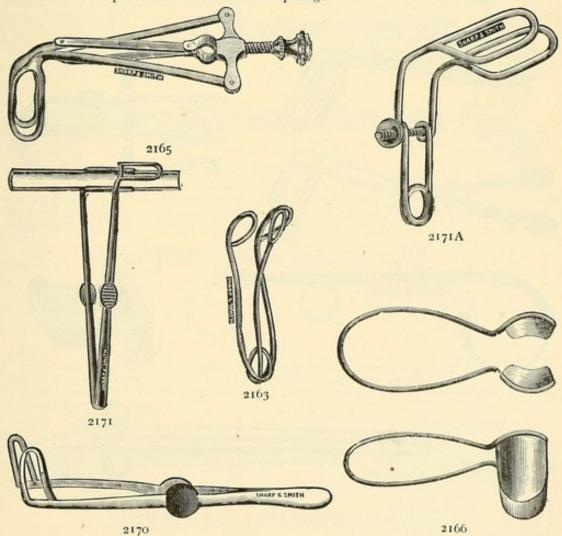
	NASAL INSTRUMENTS.	
*2149	Duplay's Rhinoscope	5 00
2150	Plain "	60
*2151		6 00
2152		
*2153	D 1 11 N 10 1 10 1 10 1	4 50
*2154	7 137 10 1	
*2055	0 161	
2156	" T 1 " "	I 75
*2157	Th. 4.1	
2158	DI GOOD IN TO THE PARTY OF THE	I 50 2 00
	" TI D	2 00
2159		1 00
		1 50
		1 85
*2160	Bonafont's Bivalve Nasal Speculum	
*2161	THE STATE OF THE S	2 75
*2162		3 75
2102	1 0130111 3	1 10
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And and		
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	2155 SHARP & SMITH	
	2155 SHARP & SMITH	
	2155 SHARP & SMITH 2162	
	2155 SHARP & SMITH	
	2155 SHARP & SMITH 2162	
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	2155 SHARP & SMITH 2162	
	2155 SHARP & SMITH 2162	
	2155 SHARP & SMITH 2162	
	2155 SHARP & SMITH 2162	

Instruments designated by a * are illustrated.

2164	Rumbold's	**	44	\$	3 (
			100		
	Leonards				2
2166	Thudicum's			1	1
2167	6.	**	""	with screw	1
2168					
	Roosa's	44			I
	Bosworth's	6.			I
2170A					
					2



Fig. 2164.—Nasal Speculum, eight inches long, with reversible blades. This length is given to it to enable the patient to hold it in his nasal passage.



N	T A	21	A	L	T	N	T	3	T	P	T	TT	VT	F	N	T	2
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NASAL INSTRUMENTS.	
*2172 Simrock's Nasal Speculum	\$1 00
2173 Seiler's " "	2 50
*2174 Sajou's " "	1 50
*2174A Brandis' " "	3 25
*2175 Jarvis' small " "	75
*2176 " (operating) latest Nasal Speculum	3 00
2177 Set of three Hard Rubber " "	1 00
2178 " " Allen's " "	1 00
2179 Bellocq's Canula for Epistaxis, plated	1 85
*2180 " " " silver	2 25
*2181 Gooch's Double Polypus Canula, plated	I 00
2182 Tampon for Epistaxis, Hard Rubber	75
SETLUS EINED	4
U	
2176	
BIIII @	
BINN CONTRACTOR	
	T
2174-A	4
3134	
2174	
2175	
CHILD & CHILD	-
SHARP & SMITH	
2180 2172	
~0	

Instruments designated by a * are illustrated.

CHARP & CMITH, CHICAGO.

2181

FIG.											
*2183	Leffert's P	alate	Hook							 \$ 1	50
*2184	Hard Rub	ber Pa	alate F	Cetracte	ог						50
*2185	Sajou's		"								50
*2186	Rumbold's	Soft	66	"							25
*2187		66	66	"	Cui	rved					25
*2188	**	Inflat	or for	Eusta	chian	Tube,	Hard	Rub	ber		75
*2188	44	"	**	60		66	Glass				25
2189											60

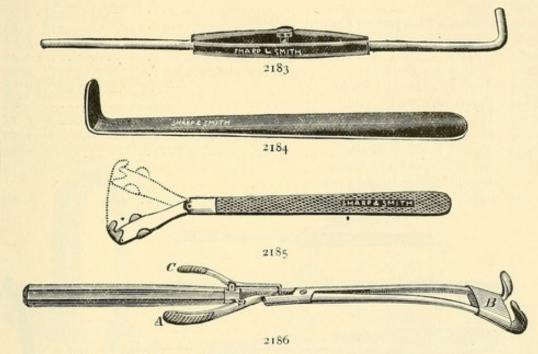


Fig. 2186. Soft Palate Retractor.—A, lever to separate the arms. B, the soft rubber band that closes the arms, and holds the uvula out of the operator's way. C, the lever that raises the wedge. After the instrument is introduced behind the velum, and the arms spread by the lever A, then the wedge retains them in this position.

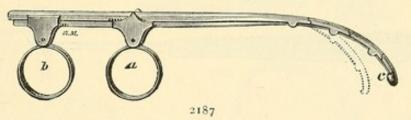
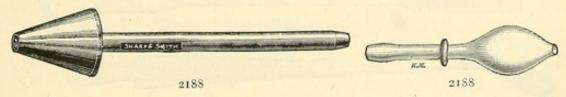


Fig. 2187. Curved Soft Palate Retractor.—The curved extremity is passed along the floor of one nostril until it reaches the pharyngo-nasal cavity; pressing the two ring levers a and b together causes the curved extremity to draw the velum forward, the probe point c preventing the slipping of the velum.



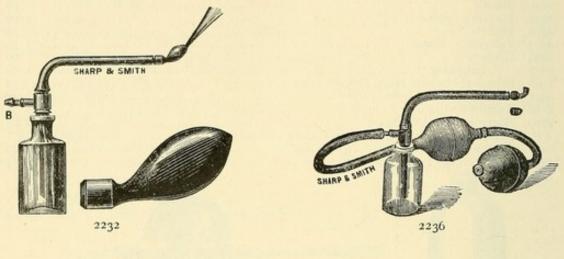
All Instruments designated by a * are illustrated.

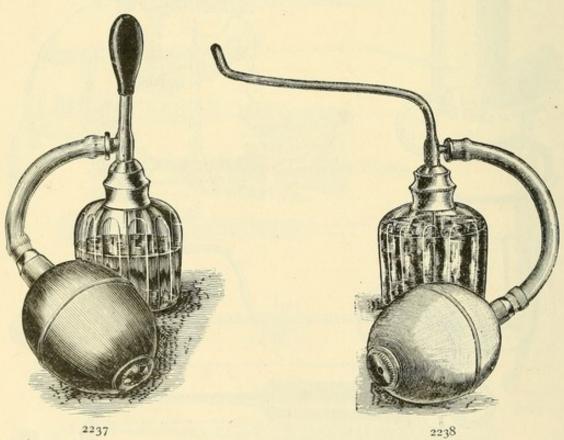
*2190 Sajou's Acetic Acid Applicator \$5 oc 2191 " Chromic " 4 50 2192 McCoy's Applicator 5 oc *2193 Bosworth's Aluminium Applicator 1 fo 2194 Posterior Pharyngeal 1 fo Ingals' Aluminium " (page 439) 1 fo 2195 Bosworth's Aluminium Probe 1 fo 2196 Hard Rubber Probe 35 2197 Silver Probe 1 oc 2198 Steel 9c 2199 Cohen's Pharyngeal Cotton Holder 2 25 2200 Turnbull's " " " 1 oc *2201 Allen's Cotton Holder 2 25 *2202 Volkman's Curette 2 25 *2203 Sass' (3 curves) Curette 2 25 *2204 Spiers' Curved 75 *2205 Hyde's 1 15 *2206 Gradle's Spoon 1 75 *2207 Allen's Septum Knife 1 25	*2190 Sajou's Acetic Acid Applicator		NASAL INSTRUMENTS.		
2191 "Chromic "	2191 "Chromic "	FIG.	Sajou's Acetic Acid Applicator	0-	00
2192 McCoy's Applicator	2192 McCoy's Applicator		" Chromic "	-	
*2193 Bosworth's Aluminium Applicator.	*2193 Bosworth's Aluminium Applicator. 2194 Posterior Pharyngeal "				
2194 Posterior Pharyngeal	2194 Posterior Pharyngeal Ingals' Aluminium "(page 439) 2195 Bosworth's Aluminium Probe. 1 2196 Hard Rubber Probe. 3 2197 Silver Probe. 1 2198 Steel			2	
Ingals' Aluminium " (page 439). 110 2195 Bosworth's Aluminium Probe	Ingals' Aluminium " (page 439) 2195 Bosworth's Aluminium Probe		Posterior Pharyngeal "	1	
2195 Bosworth's Aluminium Probe.	2195 Bosworth's Aluminium Probe.	94	Ingals' Aluminium " (page 430)	100	20
2196 Hard Rubber Probe 2197 Silver Probe 2198 Steel 2199 Cohen's Pharyngeal Cotton Holder 2200 Turnbull's 2201 Allen's Cotton Holder 2202 Volkman's Curette 2203 Sass' (3 curves) Curette 2204 Spiers' Curved 2205 Gradle's Spoon 2206 Gradle's Spoon 2207 Allen's Septum Knife 2208 Sajou's Periosteal Knife 2208 Sajou's Abscess retro-Pharyngeal Trocar 2209 Sajou's Abscess retro-Pharyngeal Trocar 2209 Sajou's Abscess retro-Pharyngeal Trocar 2209 Sajou's Probability 2209 Sajou's Abscess retro-Pharyngeal Trocar	2196 Hard Rubber Probe 2197 Silver Probe 2198 Steel 2199 Cohen's Pharyngeal Cotton Holder 2200 Turnbull's " " 1 0 2201 Turnbull's " " 1 0 2202 Volkman's Curette 2203 Sass' (3 curves) Curette	2105		1	10
2197 Silver Probe. 1 0 0 2 199 Steel " 90 Cohen's Pharyngeal Cotton Holder 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2197 Silver Probe. 2198 Steel " 2199 Cohen's Pharyngeal Cotton Holder. 2200 Turnbull's " " " 1 control of the c		Hard Rubber Probe		
2198 Steel "	2198 Steel " 2199 Cohen's Pharyngeal Cotton Holder			1	
2199 Cohen's Pharyngeal Cotton Holder	2199 Cohen's Pharyngeal Cotton Holder. 2200 Turnbull's " " 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2				90
### 1 0 0 0 200	### 2200 Turnbull's " " " " " " 1 1 1 1 1 1 1			2	-
2202 Volkman's Curette *2203 Sass' (3 curves) Curette *2204 Spiers' Curved *2205 Hyde's *2206 Gradle's Spoon *2207 Allen's Septum Knife 1 73 *2208 Sajou's Periosteal Knife 1 19 1 19 1 19 2 193 2 190 2 190 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2202 Volkman's Curette *2203 Sass' (3 curves) Curette *2204 Spiers' Curved *2205 Hyde's "	2200			
*2203 Sass' (3 curves) Curette	*2203 Sass' (3 curves) Curette	*2201	Allen's Cotton Holder		40
*2204 Spiers Curved " *2205 Hyde's "	*2204 Spiers' Curved *2205 Hyde's " *2206 Gradle's Spoon " *2207 Allen's Septum Knife.			2	25
*2205 Hyde's "	*2205 Hyde's " *2206 Gradle's Spoon " *2207 Allen's Septum Knife			I	85
*2206 Gradle's Spoon "	*2206 Gradle's Spoon				75
*2207 Allen's Septum Knife. 1 25 2208 Sajou's Periosteal Knife 1 13 Ingals' Knife (page 439). *2209 Sajou's Abscess retro-Pharyngeal Trocar. 1 50 2190 2193 2204 (Shaap 25Mith) 2207 2207	*2207 Allen's Septum Knife. 2208 Sajou's Periosteal Knife. Ingals' Knife (page 439) *2209 Sajou's Abscess retro-Pharyngeal Trocar. 2193 2190 2193 2204 [Shaap - SMITH] 2207		flyde S	1	15
*2208 Sajou's Periosteal Knife Ingals' Knife (page 439). *2209 Sajou's Abscess retro-Pharyngeal Trocar. I 50 2190 2193 2204 2207 BLAFF & SEITED 2209	Sajou's Periosteal Knife. Ingals' Knife (page 439). *2209 Sajou's Abscess retro-Pharyngeal Trocar. 2190 2193 2204 2207 SMARF #3FITH 2207 2207			1	
*2209 Sajou's Abscess retro-Pharyngeal Trocar	*2209 Sajou's Abscess retro-Pharyngeal Trocar			I	25
*2209 Sajou's Abscess retro-Pharyngeal Trocar	*2209 Sajou's Abscess retro-Pharyngeal Trocar	2208		I	15
2193 2193 2193 2203 SHARF & SMITH 2207 SHARF & SMITH 2209	2193 2193 2193 2203 SHAFF & SMITH 2207 BHAFF & SHITH 2209	str			
2193 2203 SHARF ASBITH 2207 SHARF ASBITH 2209	2193 SELAN REMINED 2204 LISHARP 4-SHITH 2207 SMARP 4-SHITH 2209	*2209	Sajou's Abscess retro-Pharyngeal Trocar	1	50
2193 2203 SHARF ASBITH 2207 SHARF ASBITH 2209	2193 SELAN REMINED 2204 LISHARP 4-SHITH 2207 SMARP 4-SHITH 2209				
2193 2203 SHARF ASBITH 2207 SHARF ASBITH 2209	2193 SELAN REMINED 2204 LISHARP 4-SHITH 2207 SMARP 4-SHITH 2209		DD - 64		
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2204 SHARF & SMITH 2207	2204 SHARP 4.5 MITH 2207		2190		-
2204 SHARF & SMITH 2207	2204 SHARP 4.5 MITH 2207		-public prints		W
2204 SHARF & SMITH 2207	2204 SHARP 4.5 MITH 2207				H
2204 SHARP 2 SMITH 2207	2204 SHARF 2 SHITH 2207 SHARF 2 SHITH 2209		2193	-	
2204 SHARP 2 SMITH 2207	2204 SHARF 2 SHITH 2207 SHARF 2 SHITH 2209				1
2204 SHARP 2 SMITH 2207	2204 SHARF 2 SHITH 2207 SHARF 2 SHITH 2209		(, C.OTTO SONSKY.		
2207 SHARP 4 SMITH 2207	2207 SHARF & SHITH 2207 2209		2203		1
2207 SHARP 4 SMITH 2207	2207 SHARF & SHITH 2207 2209		minima mana mana		9
2207 SUARP & SMITH 2209	2207 SUANT ASSERTS 2209				3
2207 SHARP & SHITTH 2209	2207 SUAD ASHITE 2209		2204	E	
2207 SHARP & SHITTH 2209	2207 SUAD ASHITE 2209			E	
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2209	2209	-		- 6	1
2209	2209	,		- 8	1
2201	2201		SMARP ASMITH	-	4
2201	2201		2200		1
2201	2201		2209		
		(III)		1	
2205	2205		2201	22	05
					3
SHAP & SMITH	SHAPP & EMITH	0	SHAPP & FINTH		

NASAL INSTRUMENTS. *2210 Thudicum's Nasal Douche, I Quart..... 2210A 1 00 Sawyer's 2211 50 *2212 Warner's I 00 Syphon 2213 I IO *2214 Traveler's I 00 Sharp & Smith's *2215 I 50 Hales' 2216 Nichols' 2217 Potter's 2218 2219 Allen's 60 Mead's 2220 50 Lincoln's Syphon 2221 I 00 Pierce's Nasal 2222 50 Fullgraff's Nasal 2223 50 2224 Bridge's 60 Irrigating " 44 2225 Pomeroy's Double Nasal Douche, tips..... 2226 2227 2228 3 75 Hazen's Nasal Douche..... 2229 2 25 Warner's Catarrhal Syringe (see Index) five tips 2230 Howard's *2231 Hard Rubber Post Nasal Syringe SHARP & SMITH CHICAGO SHARP & SMITH 2215 SHARPA 5M 2212

2231 Instruments designated by a * are illustrated.

FIG.		
*2232	Leffert's Nasal Spray, one tip	\$2 25
2233	" " three tips	3 00
2234	Hall's " " two tips	2 50
2235	Roosa's Post Nasal Spray	2 50
	Sharp & Smith's Nasal Spray, two tips	
*2237	No. 3 Nasal Spray	1 50
*2238	No. 7 Posterior Nasal Spray	1 50





Instruments designated by a * are illustrated.

	. NASA	AL INSTRUMENTS	5.	
*2239 2241 2242 *2243 *2244 2245 *2246 2247 2248 *2249 *2250 *2251 *2252 *2253 *2253	Bishop's Powder Blower for Leffert's H. R. Powder Blow Richardson's """ """ """ """ """ """ """ """ """ "	with mouth piece, three ti reversible, two tips two tips three tips No. 213 der Blowers	ps	2 75 2 25 3 75 3 25 5 00 2 25 2 50 2 25 50 1 50 1 75
•	2243		SHARP & SMITH CHICAGO	(C) (I) (Market - M)
		2244 SHARP& SH		2250

. 2246

Description of other Powder Blowers see following page.

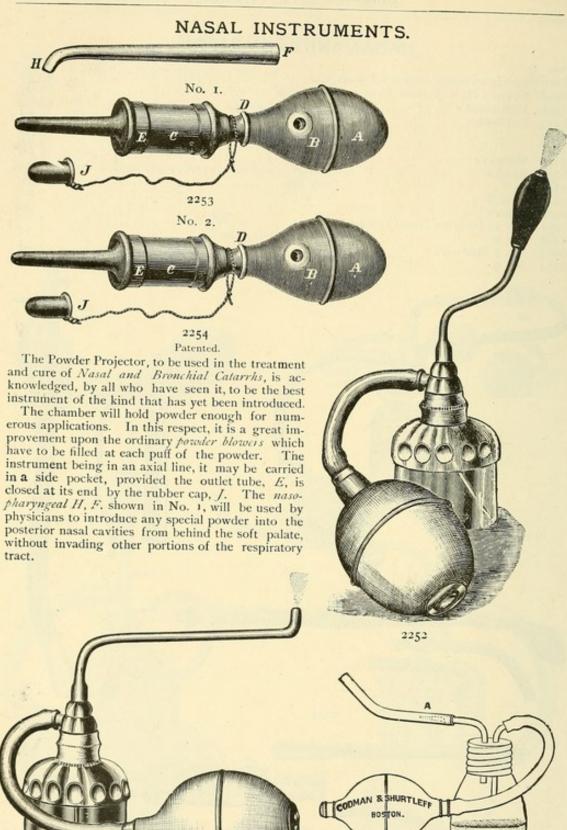
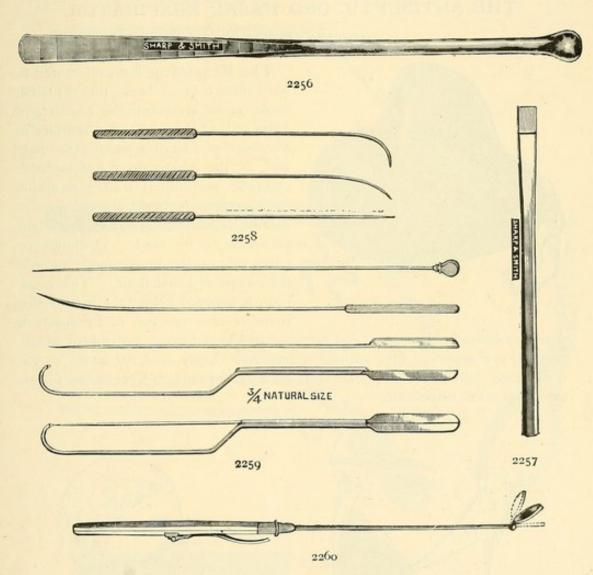


FIG.		
*2256	Sharp & Smith's Chisel for Rhinoplastic Operations \$1	15
*2257		75
*2258		75
*2259		co
*2260		50
2261	Titudii Douglee, income and	60
2262		50
2263	Woake's Nasal Plough 2	00
2264	Brace for Dislocated Septum	00



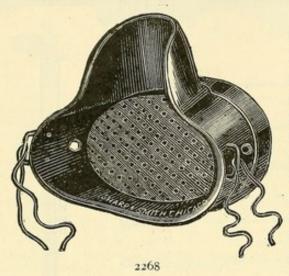
Rumbold's Hinged Pharyngeal Mirror.—By pressure on the lever on the handle, the mirror may be made to take any desired angle, thus reflecting the posterior, superior and anterior surfaces of the pharyngo-nasal cavity, and, by turning the reflecting surface toward the larynx, this passage can also be seen. Rotation on its axis reflects the lateral surfaces.

Instruments designated by a * are illustrated.

*2265	Anti-Dust Nose and Mouth	Respirator.									.\$	1	80
*2266	Nose and Mouth (ordinary)	**						 		 		1	50
2267	Nitz's Nose and Mouth	"				 		 		 		1	50
*2268	Tyndale's Nose and Mouth	"				 		 		 		2	60

THE ANTISEPTIC ORO NASAL RESPIRATOR.

(TYNDALE'S RESPIRATOR.)



The Respirator is manufactured in hard rubber, or of brass nickel plated, made to fit accurately the mouth and lower part of the nose. A membrane in the shape of a sieve separates the main body of the inhaler from a detachable cup (also perforated) for the reception of absorbent cotton, sponge, lint or oakum, upon which is dropped the antiseptic to be used. Openings on either side of the mouth-piece allow of the escape of exhaled air. The respirator is fastened behind the ears by thin round elastic ribbons, or by spectacle

wires, as desired. It is small and portable, the hard rubber instrument weighing only one ounce. The antiseptic remedies chiefly used for more or less continuous inhalation, are iodoform, eucalyptol (Sanders'), creosote, phenic acid, and oil of turpentine.

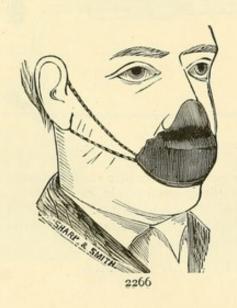
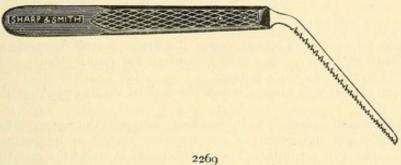
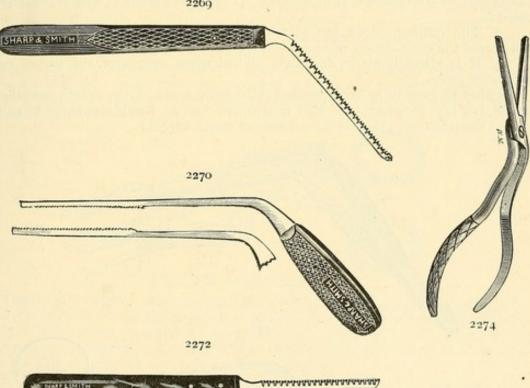




FIG.			
*2269		\$1	50
*2270	" " " up	I	50
*2271	" Exostosis Saw		
*2272	Bosworth's Saw		
*2273	Noyes' "	2	25
*2274	Rumbold's Heavy Nasal Scissors for Clipping Turbinated Bones		-
	and Growths on the Turbinated Process		
*2275	Jarvis' Nasal Scissors	6	75
*2276			
*2277	Knight's Nasal Scissors	2	25
			-





2271

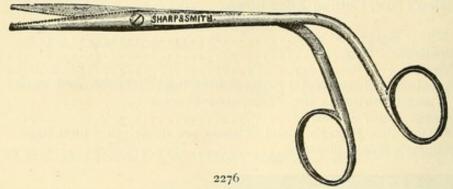


2273

Instruments designated by a * are illustrated.

A NASAL SCISSORS.

By Frank Hamilton Potter, M. D., Lecturer on Laryngology, Medical Dept. Niagara University.



These scissors can be used with great advantage in many operative procedures upon the nasal passages. The cut above illustrates a new form of the instrument, which it is thought, possesses sufficient merit for publication.

Attention is called to the following points:

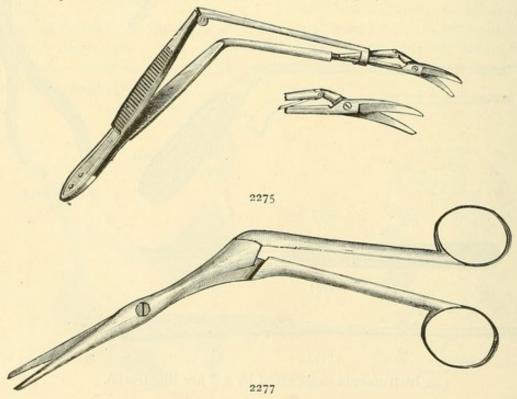
1. The hand of the operator is always below the line of vision, whether the instrument is open or shut.

2. The blades are one and five-eighths inches long, and will thus grasp large growths; or, with but a slight movement of the handles, they can be opened sufficiently to trim the edges of wounds. The latter point is well illustrated in the cut.

The cutting edges are serrated, so as to make an uneven wound, and thus favor the coagulation of blood.

4. It is strongly made, and thus allows, when necessary, the use of considerable force.

Other scissors have been devised embodying some of the points mentioned above, but it is believed that this instrument has so combined them as to increase the practical value of the scissors in nasal surgery.



SOME NEW NASAL, PHARYNGEAL, AND LARYNGEAL INSTRUMENTS.

By S. Sherwell, M. D., Brooklyn, N Y.

*2278	Dr. S. Sherwell's	Nasal Scisso	ors, No. 1		 		 		 .8	4	00
*2279		Pharyngeal,									
*2280		Nasal		No.							
*2281	"	Laryngeal		No.							
*2282	Dr. Prince's Spoo	ol Eyed Nee	dle		 	 	 	 		3	50

In connection with my dermatological work I have to do with a not inconsiderable number of diseases of the upper air passages, often certainly as syphilitic annexes, but far more frequently of the character of non-specific affections. At one clinic, that for skin and throat diseases at the Brooklyn Eye and Ear Hospital, I see about five hundred new throat and nose cases each year, which, together with private practice of the same kind, and duties in other hospitals, would bring the total amount to very considerably over one thousand cases annually.

I have consequently had to meet, and get over as best I might, most of the difficulties that occur in these regions in the way of operative interferences. And although I have a fair array of instrumental armamenta for that special work, still I suppose no man has at his command all the special instruments made for help in such cases; and in fact, sometimes, if not frequently, he is called upon to either modify some existing instrument, or to devise new ones (as I claim to have done in the instruments I now lay before you) to meet the exigencies of the existing situation, or to supply deficiencies. The instruments in question, I hope, in many cases will serve to fill the traditional "long felt want," and I shall publish them as Sherwell's Nasal, Pharyngeal and Laryngeal Scissors.

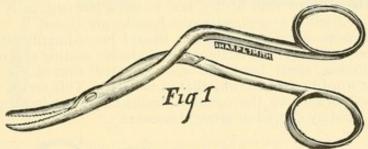


Fig. 2278.-Nasal Scissors.

The nasal scissors are intended for removal of neoplastic growths, or hypertrophic tissue, from the anterior or middle, or even the deeper portions of the nares, and consist of a pair of serrated blades similar to the alligator-tooth scissors, slightly concave-convex, and with handles bent downward in the long

axis so as not to obstruct the vision while operating.

The pair shown were made five months ago for operation on the nose, for the removal of hypertrophied turbinated tissue in the person of a well-known professor of surgery, and succeeded in their purpose fairly well. It will be noticed that they are best adapted for the left nares—on that side the trouble was present in this case; but they can be, and have been, used for right nares by inverted handling. The notched teeth prevent slipping and pushing of the tissues away, as can be best demonstrated by cutting a piece of India rubber with them, and then doing so with the ordinary smooth scissor-blades. It will be noticed, also, that the shanks of the handles are narrowest when the blades are open nearly, if not fully, to the greatest necessary extent.

Figs. 2 and 3, pharyngeal and nasal, I give in order of priority of make.

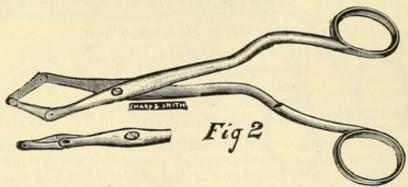
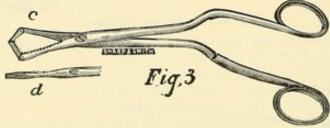


Fig. 2279.—Pharyngeal Scissors.

In Fig. 2 I have tried to construct an instrument capable of being used by any one, however inexpert; that should run no risk of piercing the pharynx, or the important vessels back of the tonsils, etc., no matter what unguarded movements a nervous or intractable patient might make during the operation. This is intended to trim a pharynx, to cut out small teat-like projections of a fretted or ragged tonsil, which are so often seen—and which are, from their size and shape, impossible to remove by the tonsilotome—and also as a most useful uvulatome. The advantage, so readily seen by the expert, of its needing no help with forceps—thus leaving one hand free for tongue depression or for steadying the head of the patient—seems to me obvious enough; and it has certainly so proven in the relatively few cases in which, owing to its recent make, I have had an opportunity to use it.

The instrument, as will be noticed, is an absolutely pointless scissors, hinged about one-third of the distance from the extreme end, and thus composed, as will be seen, of four blades, but forming but two, as it were, by cutting at the hinged-joints as well, when the handles are closed.

The instrument when open, and it should be ordinarily introduced that way if the pharyngeal space is shallow, has an inside cutting surface something like the old Roman spear head, the apex directed toward the operator; it needs but one word to explain why that is made so: This serves to thrust the inclosed tissues forward to the operator instead of away from him, as is the case with the ordinary curved or straight scissors.



c, Blades open; d, Blades elose

Fig. 2280.-Nasal Scissors.

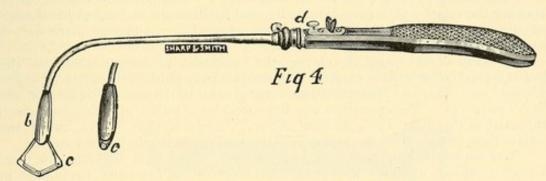
I think this idea has the merit of novelty at least, for I cannot recall any other instrument in which the cutting is going on all around at the same moment, save in écraseurs.

^{*} By draughtsman's error the proximal blades are not made long enough; angle of distal blades correct; the lumen should be considerably longer.

I have purposely given Fig. 3 out of its natural sequence, although it is intended for the same use as Instrument No. 1, i. e., for the removal of hypertrophic or other tissues from any part of the anterior or deeper nares. I think it has many advantages over the first shown, but it is more complex. It is, as will be seen, but a modification of the pharyngeal scissors just described, but is more delicate, and has serrated edges. It will be noticed that the inside cutting edge is not that of the Roman spear, but rather that of the Indian arrow head or javelin; this is accomplished, as is evident, by making the site of the hinged joint nearer the extremity of the blade. I operated with it on January 29, 1887, the day it came from the maker's hands, having reserved a patient with the growths above named; it worked very well. It needs no special instruction in its use, is absolutely free from danger, and causes, it may be said, no hæmorrhage.

I think the instrument made a little stronger might be better.

The last instrument (Fig. 4), though it has, and must have, more limited use and a far narrower circle of users, I am somewhat enthusiastic over. Probably all laryngologists have been bothered (we may take the confessions of the most noted, at least, that they have been) to get hold of and crush or cut, or both combined, those little or big neoplasms that occur, fortunately, relatively so rarely in the recesses of the larynx. I average three or four laryngeal tumors, I think, annually, and have a fair supply of Stoerk's, Mackenzie's, Schrotter's, Fauvel's, etc., instruments; but every now and then I have been exceedingly annoyed at the elusiveness of these little tumors situated on the vocal cords and elsewhere in that vicinity I have sometimes tried all my own tools, and borrowed others, and worked till my patience or that of the patient was exhausted; this is apt more particularly to be the case in and of those sessile outgrowths, papillomata, or what not, from one or the other vocal cord.



a, Tube; b, Sheath, cutting edge below slot; Instrument retracted into sheath; d, Sliding retractor grip on wire.

Fig. 2281.—Laryngeal Scissors.

The instrument now shown is then adapted to one of Schrotter's tubes and handles, and consists virtually of the same idea as that of the hinged and jointed four-bladed scissors just as given in the preceding two, naturally much lessened in size, and with yet a different lumen. The instrument is introduced closed into the larynx, allowed to expand by the automatic spring arrangement on pressing the wire attached to the finger-piece, and when, as the expert will know, it is at or about the site of the growth, is redrawn up into the tube, and into the slot in the tube, by retracting finger pressure.

The instrument may not cut the growth off cleanly, but a very slight pushing and retracting will divide the tissues met with there. The cleanness of separation is of little consequence anyhow, for we know, as a matter of fact, that the nutrition of these small neoplasms once essentially interfered with by crushing or cutting, they tend to disappear, as do warts and such by astringent

and alterative applications being applied with the brush, etc.

I believe this instrument to be a good addition to the existing armamenta for laryngeal operation, and hope it and the others will commend themselves

to the gentlemen more especially interested in such work.

Owing to its recent make I have had but one opportunity of using this instrument on a laryngeal growth; it succeeded then admirably. One point omitted in description of instrument is, that there is a screw-joint at junction of shaft and tube, permitting any degree of rotation of cutting surfaces.

I also believe that the principle of this hinged and pointless scissors would adapt itself for use in some of the mucous openings and cavities of the body. The four blades closing at once give it an essentially écraseur-like action, so

that hæmorrhage is usually extremely slight.

(Extract from the American Journal of Ophthalmology, February, 1887.)

PRINCE'S SPOOL EYE NEEDLE.

By E. A. Prince, M. D., Jacksonville, Ill.

The accompanying cut of my spool advancement needle was received with the request that an account of it be given to some medical journal for publication.

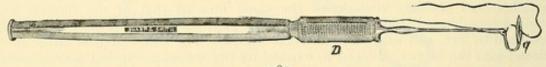
Its necessity first became evident about six years ago. In attempting to correct an internal strabismus of moderate degree, the capsule of Tenon was sufficiently lacerated to allow the tendon to retreat so much as to occasion an extreme external squint, decidedly worse than the original deformity.

Stimulated by the prospect of disgrace, I extemporized a hook, after drawing the temper of a surgical needle, and fortunately succeeded in advancing the retracted muscle, which was then secured to its proper place with a

perfect cosmetic result.

A study of this case developed the operation of "advancement of the rectus," together with the capsule and conjunctiva, published in the St. Louis Medical and Surgical Fournal, June, 1881, and in Noyes' "Diseases of the Eye," page 116. The operation was improved by a pulley modification, which appeared in the New York Medical Record, August 8, 1885, with a cut of the needle then in use, after the manner of the corkscrew-staphyloraphy needle.

The antiseptic importance of keeping the thread from touching the face, hair or clothing, together with the realization of its extensive usefulness in cauthoplasty and other operations on the conjunctiva, led to the conception that it merited a spool in the handle, to carry antiseptic silk, shielded from contact with pyogenic organisms.



2282

This requirement was met in August, 1885, by the introduction of a bobbin, a, to carry about thirty feet of silk, which issues from a very small opening in the shield and passes through the eye of the needle, b, to be caught by toothed forceps—after the tissues have been transfixed.

The loop suture for advancement is made by transfixing the rectus a second time from within outward, catching the thread and withdrawing the needle before cutting it off. The thread for the anterior fixation point (pulley) should be entered one or two millimeters from the cornea, slightly into the

dense tissue, which purpose is better served by the sharpness and delicacy of a No. 25 eye needle. This thread is then tied to encircle one branch of the loop suture in a form of pulley over which it is drawn to any degree of tightness, and tied with a surgical bow-knot, to be modified or made secure after an interval, when a perfect position shall have been established. The silk which has been employed is iron-dyed No. 2. It is first soaked in a one-tenth per cent. sublimate solution, dried, waxed (to prevent untwisting), and treated with iodoform in vaseline (three per cent.), when, wound on the spool, it is always ready for use.

FIG.		
2283	Bosworth's Permanent Clamp\$ 2 75	5
	Quier's Foreign Body Extractor (see index) 2 00	
2284	Breathing Inhibitor 2 00	0

NASAL INTUBATION.

By D. H. Goodwillie, M. D.

On this occasion it is only my purpose to introduce to you a method of nasal intubation as a valuable aid in the treatment of intranasal disease, and at some future time to give more in detail the result of an experience of some years of its use.

My first efforts began by the use of pure rubber gum tubing of different sizes and strength, and made applicable to each case by such impromptu means as I had at command. These experiments, after being carried on for some time, were so encouraging that I had the tubes made in soft rubber and platinum or aluminium from models that have proved by experience to be of practical application. These improved tubes have given me such good results that I merely call your attention to them for your consideration.



These tubes are oval (a) in shape and of the same size, with the exception of the anterior end (b), that is shaped so as to fit the vestibule of the nostril, and by that they are retained in place.

They are made in different sizes, ½ to ½ inch in diameter, and in length from 2½ to 3½ inches, but may readily be cut to any desired length.

The metal tubes can be changed in their caliber by passing through them a core of the desired shape. The anterior end may be soft rubber, as it is more comfortable by its flexibility in the vestibule of the nose.

The small rubber tubes are made use of at the beginning of the treatment and changed to larger ones until there is normal space or the deformity has been corrected. Then the metal tubes may be used if so desired, as they allow freer respiration through them. The tube is put into the nostril by raising the end of the nose and gently passing it into the inferior meatus, then releasing the end of the nose and passing the anterior end into the vestibule. They cannot be seen externally, and so can be worn and treatment carried on without any unsightly appearance, or even knowledge of their presence.

They can be readily removed by the patient for cleansing and returned to the nostril. Some of my patients have worn them constantly for months without discomfort, and always with benefit.

I will simply refer to some of the nasal diseases in which they have been made use of, viz.:

- 1. Intranasal hæmorrhage.
- 2. Fractures of the nose, internal and external.
- Deviations of the cartilaginous and bony septum after the necessary surgical operation of section or removal of exostosis.
- 4. After the removal of hypertrophic turbinated tissues or polypi, whether by the cautery or snare.
- Hypertrophies of the soft tissues without an operation, when worn for a sufficient time to produce absorption.

Beginning on the following Page is a

LIST OF INSTRUMENTS

DEVISED BY

E. FLETCHER INGALS, M. D., CHICAGO, 111s.

COMPILED BY

JNO. EDWIN RHODES, M. D.,

CHICAGO, Ills.

Pages 437 to 446 inclusive.

DR. INGALS' NASAL INSTRUM	IEN	TS
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FIG			200	
*2285	Ingals'	Cold Wire Nasal Snare, Steel Post, with 6 tubes	\$6	00
2286	"	" " " " 6 " in case	8	00
*2287	"	Glass Powder Blower (3 tubes) Rubber Bulb	I	00
2287-	A "	Nasal Syringe	1	00
*2288	"	Cautery Electrodesper set.	12	00
2289	"	" "each.	1	75
*2290	"	Septum Knife		25
*2291	"	Cotton Applicator		40
*2292	"	Silver Canula		00
*2293	44	Brush Holder		75
*2294	66	Flat Nasal Probe		00
*2295	44	Nasal Speculum	I	50
*2296	"	Bone Cutting Forceps		25
*2297	"	Dressing Forceps		50
*2298	**	Foreign Growth Forceps		25
*2299	66	Wire Loop Adjuster	-	00
*2300	- 44	Nasal Dressing Scissors		25
*2301	- 66	Turbinated Bone "		50
*2302	66	Nasal Spatulasset of 3.		75
*2303	"	Nasal Spout, including Rubber Tube		00
*2304	"	4-inch Mirror, with Lens		00
-3-4		, , , , , , , , , , , , , , , , , , , ,	0	1000

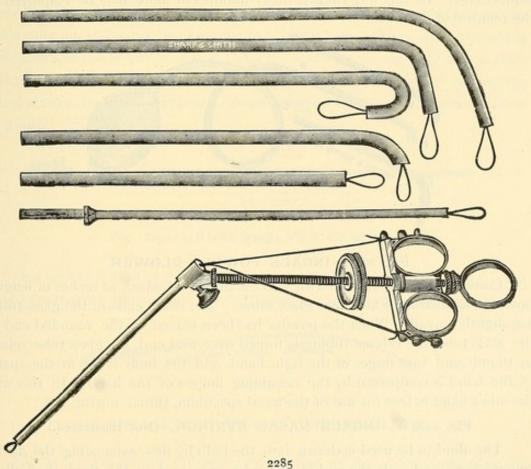


Fig. 2285.-INGALS' COLD WIRE NASAL SNARE.

(For description, see following page.)

FIG.			
*2305	Ingals'	Head Band\$ 1 50	
*2306	"	Set of Spray Tubes with rack 3 50	
*2307	"	Nasal Saw 1 75	
*2308	- "	" Rubber Tampon 75	
*2309	"	Tonsil Forceps 3 00	
*2310	66	Laryngeal Forceps, any styleeach. 3 50	
2311	"	" Case of Instruments 22 00	
*2312	"	Cautery Battery 50 00	

Fig. 2285.—INGALS' COLD WIRE SNARE.

(For illustration, see preceding page.)

This is a well-constructed snare, with steel post and six tubes. Suitable for removal of tumors, hypertrophied tissues, foreign bodies, etc., in nasal cavities, pharynx and larynx. It is armed by means of a piece of No. 5 piano wire doubled into a loop, the ends being passed through the tube and wound about the posts securely. When additional traction power is needed the small wheel may be run down upon the horizontal bar, and turned as may be desired in cases where it is necessary to cut through the growth slowly, in order to avoid hemorrhage. In this way twenty, thirty minutes or more may be employed in the removal of a growth.

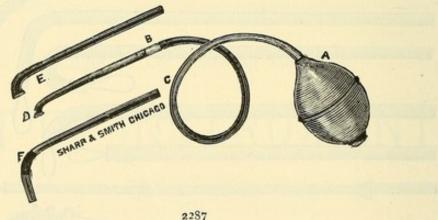


Fig. 2287.-INGALS' POWDER BLOWER.

Consists of a rubber bulb with rubber tubing attached, 12 inches in length, provided with straight and bent glass tubes. The distal ends of the glass tubes are slightly spread. When the powder has been placed in the rounded end of the glass tube, the rubber tubing is forced over that end, the glass tube seized by thumb and fore finger of the right hand and the bulb lying in the palm of the hand is compressed by the remaining fingers of the hand. In this way the other hand is free for use of the nasal speculum, throat mirror, etc.

Fig. 2287-a - INGALS' NASAL SYRINGE .- (Not Illustrated.)

The fluid to be used is drawn into the bulb by first exhausting the air by compression, and with the end of the tube immersed in the fluid, the bulb is filled by suction. It can then be forced out with as little pressure and as slowly as desired.



Fig. 2290.—INGALS' SEPTUM KNIFE.

Blade one and one-quarter inches long, with sharp point. Used in operations upon the cartilaginous septum.

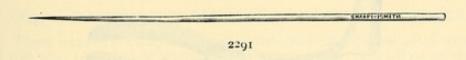


Fig. 2291.—INGALS' APPLICATOR.

These are made of copper, nickel plated, eight inches in length. They are quadrilateral in shape from the point five inches, They are flexible, and can be bent at any angle, for use in naso-pharynx, larynx, etc. When used in making applications in the larynx, it is best to tie the cotton swab securely with a piece of thread, winding it about the applicator, thus avoiding the risk of having the cotton drawn from the applicator, when grasped by the spasmodic action of the glottis.

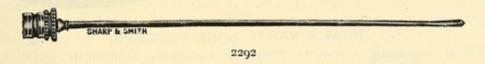


Fig. 2292.—INGALS' SILVER CANULA.

This canula is made for attachment to a common hypodermic syringe, and is used for making applications of solutions of cocaine in the nasal passages.

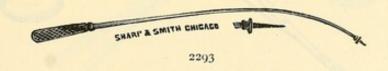
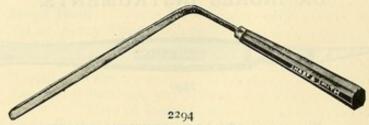


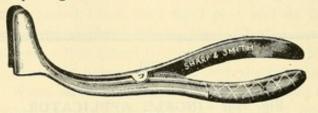
Fig. 2293.—INGALS' THROAT BRUSH-HOLDER.

The quill is cut off an ordinary camel's hair brush at the base, and the holder is then screwed on. It can be bent at any desired angle, and is used to make applications of pigments to the throat or larynx,



INGALS' FLAT NASAL PROBE.

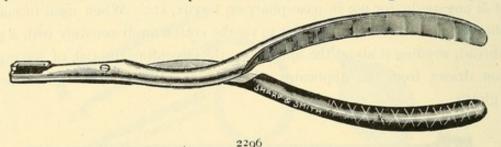
Five and one half inches in length, made of aluminium, bent at an angle of forty-five degrees in order that the hand may not be in the line of vision when using it in the nasal passages.



2295

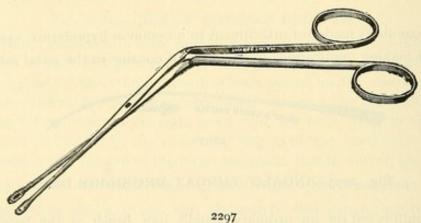
INGALS' NASAL SPECULUM.

Nicker plated. Adapted to the shape of the nasal opening. The jaws can be separated one inch. The Speculum is five inches in length.



INGALS' NASAL BONE FORCEPS.

These are made to remove projections from the Septum in operations for exostoses, and wherever bone forceps are necessary in operations within the nasal passages.



INGALS' NASAL DRESSING FORCEPS.

Bent, as per cut, at a proper angle, and a useful and necessary instrument in the laryngologist's armamentarium,

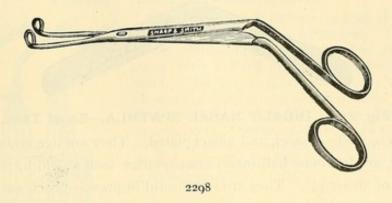


Fig. 2298.—INGALS' FOREIGN GROWTH CUTTING FORCEPS.

These were devised to remove granulations in the trachea after tracheotomy, but will also be found of service for certain cutting operations on the nose or throat.

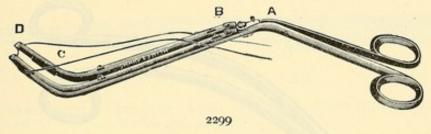


Fig. 2299.—INGALS' WIRE LOOP ADJUSTER FOR TUMORS IN NASO-PHARNYX.

This loop adjuster was devised for carrying the wire behind and around tumors in the naso-pharynx, when operating for removal with the cold wire snare. It is so arranged that the wire can be disengaged in situ, and the instrument removed.

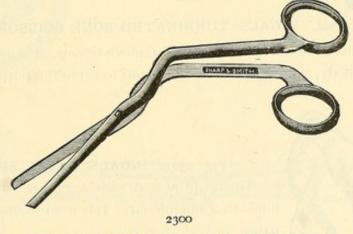


Fig. 2300.—INGALS' NASAL SCISSORS.

These scissors are useful in intra-nasal operations, made of suitable strength, and so constructed that the blades can be separated widely when operating in the nares.



Fig. 2302. INGALS' NASAL SPATULA.-Set of Three.

These are made of steel, and nickel plated. They are five and one-quarter inches long, are from one-half inch to one-quarter inch in width, and are bent at an angle of about 45°. They are very useful in pressing back swollen tissues in the nares to afford a better view of the nasal chamber; also in tamponing the nares, breaking down adhesions, etc., in some cases answering the purpose of a nasal speculum

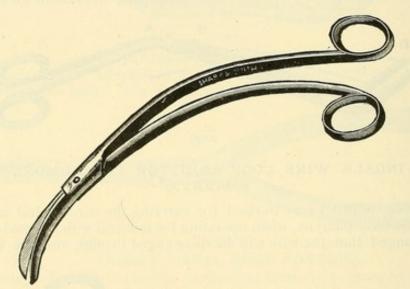


Fig. 2301. INGALS' TURBINATED BONE SCISSORS.

In some cases where it is necessary to remove tissues, or a part of the middle turbinated body, these scissors will be found to serve the purpose well.

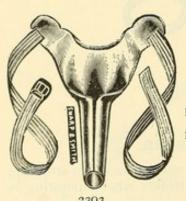
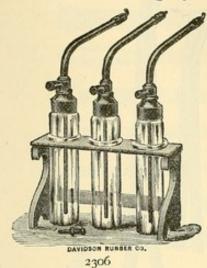


Fig. 2303. INGALS' NASAL SPOUT.

This is furnished with a rubber tube to convey fluids to a suitable jar. It is used in operations in the nares.

Fig. 2306.—INGALS' NASAL SPRAYS.



These sprays are put up in sets of three, and are made especially for office use. The bottles are of extra length, and the tubes are fitted to screw into a hard rubber cap attached to the bottle. They give a powerful spray with an air pressure of from ten to fifteen pounds, and throw fluid cosmoline, petrolina or aqueous solutions equally well. These atomizers are set in a neat rack, and each tube is furnished with a straight, curved, and Dr. Ingals' long tip for larynx and posterior nares.

SHARP & SMITH have also an excellent cutoff to fit these tubes for use with compressed air apparatus



Fig. 2307.-INGALS' NASAL SAW.

This saw is used in operations upon the nasal septum for the removal of exostoses and corrections of deviations.

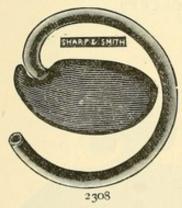


Fig. 2308.—INGALS' NASAL TAMPON.

Made of soft rubber, in a number of sizes. It is carried into the nares, collapsed, and is then inflated, causing pressure to prevent hemorrhage, and for other purposes.

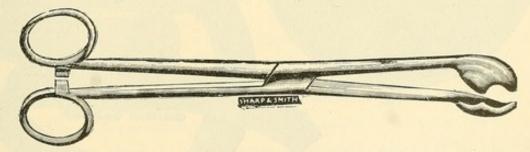


Fig. 2309.—INGALS' TONSIL FORCEPS.

Used to grasp the tonsil in tonsillotomy with the Ingals' snare.

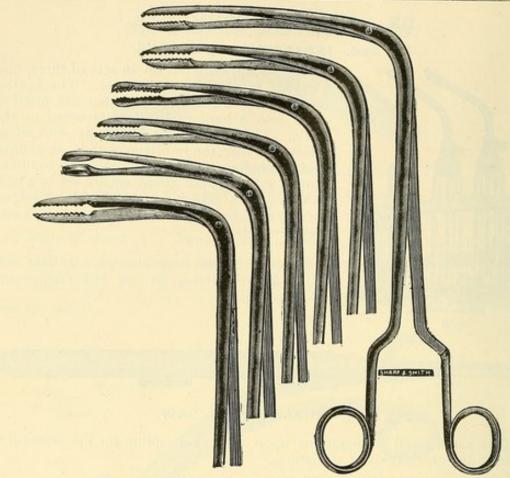
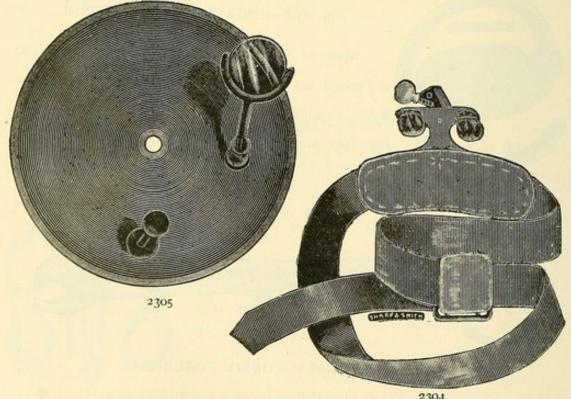


Fig. 2310.—INGALS' LARYNGEAL FORCEPS.



INGALS' HEAD BAND AND MIRROR.

1 2 3 3 5 5

DR INGALS' INSTRUMENTS.

2288

Fig. 2288.—INGALS' CAUTERY ELECTRODES.

Ingals' Cautery Electrodes, made of No. 14 copper tubing, neatly wound and shellacked.

- No. 1. Five inches in length, with platinum wire, No. 22 tip, shield of noncombustible vulcanized fibre, used in making superficial cauterizations of the nasal mucous membrane.
- No. 2. Five inches in length, blade ¾ inches long, of No. 20 platinum wire. Used principally in making linear cauterizations of the turbinated bodies and submucous thickenings at sides of vomer. The side opposite the cautery wire is carefully wound and shellacked.
- No. 3. Five inches in length, with tip of No. 21 platinum wire. Useful in the cauterization of bases of polypi, after removal of the tumor, etc.
- No. 4. Five inches in length, very flexible, with adjustable tip of No. 25 platinum wire.
- No. 5. Five inches in length, tip of No. 22 platinum wire. Used in operations on pharynx, tonsils, etc.
- No. 6. Six inches in length, adjustable tip of No. 22 platinum wire. Used in cauterizations of naso-pharynx, base of tongue, epiglottis, etc.

The tip is sometimes guarded with vulcanized fibre, the same as No. 1.

- No. 7. Seven and one-quarter inches in length, with tip of No. 27 platinum wire, for use in laryngeal operations.
 - No. 8. Galvano-cautery Ecreseur, same as Fleming's.

DR. INGALS' INSTRUMENTS.

Fig. 2311. Dr. Ingals' Case of Laryngeal Instruments contains: 1 Plain Wire Nasal Speculum; 1 Ingals' 4-Inch Mirror and Head Band; 8 Metal Screw Top 2 dr. Vials; 1 Pair Ingals' Dressing Forceps; 4 Laryngeal Mirrors, in fixed handles; 1 Ingals' Powder Blower, with glass tubes; 1 Folding Tongue Depressor; 1 Flat Platina Applicator; 2 Cotton Carriers; Absorbent Cotton. In neat morocco covered, velvet lined case, opening in center, with handles for carrying.

This is a correct list as furnished by Dr. Ingals, through Dr. Rhodes.

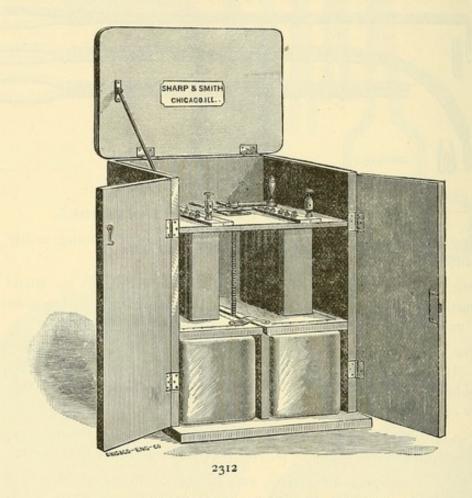
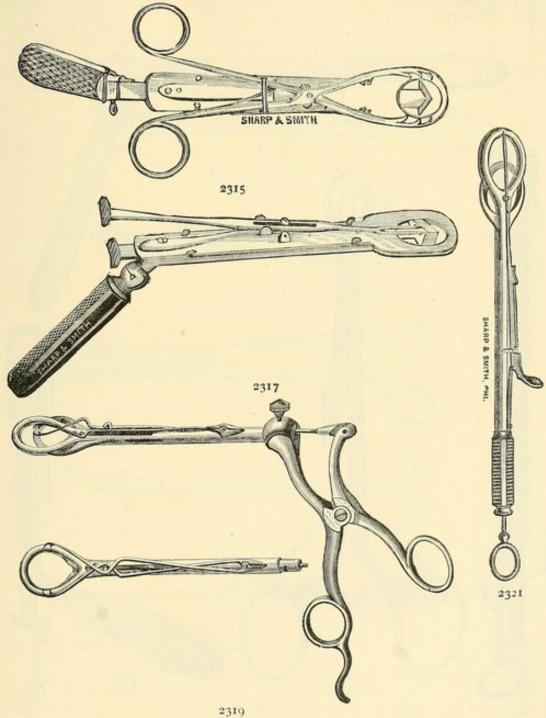


Fig. 2312.-DR. INGALS' CAUTERY BATTERY.

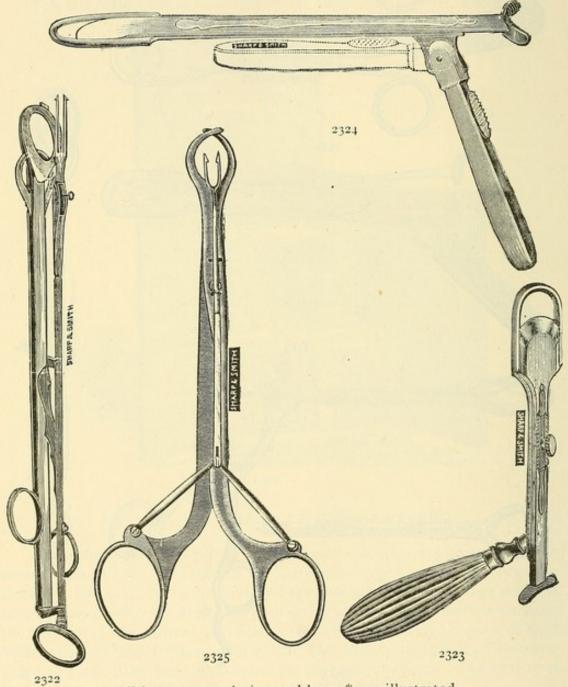
This battery has been before the profession now for several years, and the recent improvements have made it the best and strongest cautery battery in the market. There are two large cells, and the elements consist of large zinc and carbon plates, which are depressed by a screw to any desired depth, regulating the strength of the current perfectly. The cells hold a large amount of fluid which requires less frequent changing. The battery needs very little care. Some of them have been in constant use a number of years. The battery is inclosed in a neat black walnut case, 12x15x22 inches high.

	Hamilton's Tonsillotome	. \$10 5	50
	Billings' "	. 90	00
	Gunn's "		_
2318	Tiemann & Co.'s one Blade Tonsillotome	. 11	00
	" " two " "	. 17	00
2320	Fahnstock's plain all Metal "	. 3 !	50
*2321	" Best Ebony Handle "	. 4	50



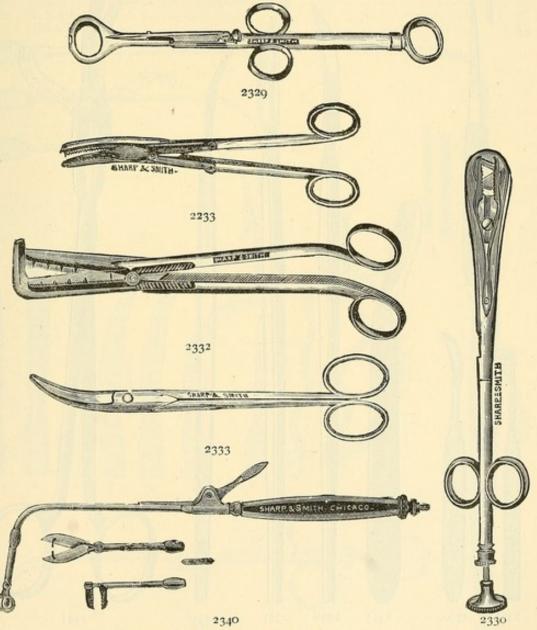
Instruments designated by a * are illustrated.

FIG.								
*2322	Mathieu's,	three siz	zes, ea	ch	 	 	§	7 50
	A. "							
	Mackenzie							
	Bishop's							7 50
	Rupprecht							10 00
2326	Sajon's				 	 \$1	oo to	15 00
2327	Lentz's				 	 		5 00-
2328	Elsberg's .				 	 		7 50



All instruments designated by a * are illustrated.

L Peter			
*2329	Sajou's Uvalotome \$	7	50
*2330	Tiemann & Co.'s Uvalotome		25
*2331	Wood's Uvula Scissors, with claws	4	00
*2332	Seiler's Angular Uvula Scissors with claws	3	75
*2333	Tonsil Scissors, Curved or Flat	2	00
2334	Hamilton's "	1	50
2335	Mathieu's "		50
2336	Tiemann & Co.'s Scissors		25
2337	Ericksen's "	3	75
2338	Richter's Angular "	-	00
2339	Whitehead's " for dividing Muscles	3	35
*2340	McKenzie's set of Scissors, Forceps and Ecraseur		75
0.1			



All instruments designated by a * are illustrated.

	MOI	UTH AN	ID T	HROAT	INSTI	RUMENTS.	
*234I	Heywoo	d Smith's	Scissor	s		\$	9 00
2342	Conceal	ed Scarifier					4 75
2343	Tonsil S	Carifiers, 1	2 Patt	erns, each		\$1 10 to	
2344 *2345	Yearsley	's " Kn	ife				1 50 1 65
*2346	Updegra	aff's Tonsil	Bisto	urv			1 50
*2347	Double	Edge Stapl	nylarop	ohy Bistour	y		1 85
*2348	Curved	R. & L.	. V		each		1 85
*2349 *2350	wintene	Gum	Killi	е			I 15 I 20
*2351	"	Hoe					I 20
-				,		20	
2351	2350	2345	2348	2347	2346	2341	

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.	
Tobold's Polypus Forceps Concaved Cutting Edge. 2352	1 15 1 15 1 15 1 15 2 00 1 50 1 50 1 85 1 85 1 40 1 40 1 50 1 15 1 85 2 25 3 00 1 85
2355	
The state of the s	
2360 SNUSPASMITH 2362	

MC	OUTH AND THROAT INSTRUMENTS.
*2364 *2365 "Bent 2366 Updegraff *2367 Whitehead 2368 Silver Wire 2369 Green's To *2370 Green's Do	s Staphylarophy Hook,\$1 50 Needle I 50 Needle Needle Needle Staphylarophy Case. 6 75 Spiral Needle Needle Needle Staphylarophy Case. 6 75 Spiral Needle Needle Staphylarophy Case. 6 75 Spiral Needle
	Billiassea
	2363
K	CHARASTERS .
	2364
6	CHWARDO
T.	2365
Summer 2374	2379 2377 2375 2376 All Instruments designated by a * are illustrated.

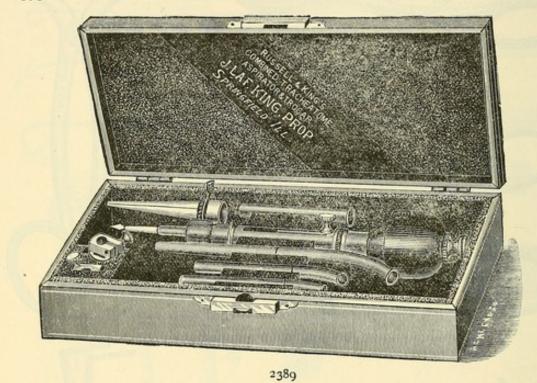
*2380 Otis' Trachea Dilator	chea Dilator \$1 60 s Trachea Dilator 3 75 Trachea Dilator 1 85 s Uvula Retractor 1 10
	SHARP & SM
2385	17.
SHARP & SMITH	(M)
2386	2380
A Property of the second of th	
	\$ 8 KKS
2382	2383

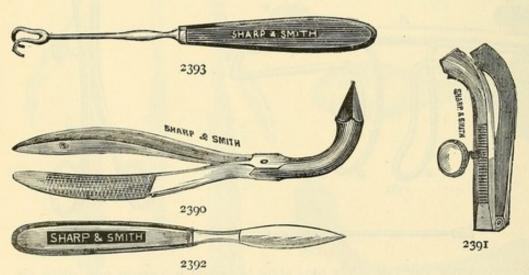
Fig. 2387. Uvula Retractor. The body of the instrument is a slender tube, about six inches long. Its larger extremity is trumpet shaped, and is covered with thin sheet rubber; its smaller extremity is so made, that the uvula may be drawn into it.

Instruments designated by a * are illustrated.

Other Trachea Instruments, see Supplement at end of book.

FIG. 2388	Hanks' T	`racheotoi	ne		 	 	 \$ 6	75
*2389	Russell &	King's	Fracheotome		 	 	 25	00
2389-A	· "	44	"	Hospital Style .	 	 	 27	50
*2390	Pitha's		"		 	 	 2	75
*2391	Tiemann	& Co.'s	**	and Dilator	 	 	 6	25
*2392	Trachea	Scalpel			 	 	 1	10
*2393	Pilcher's	Trachea	Retractor		 	 	 1	50

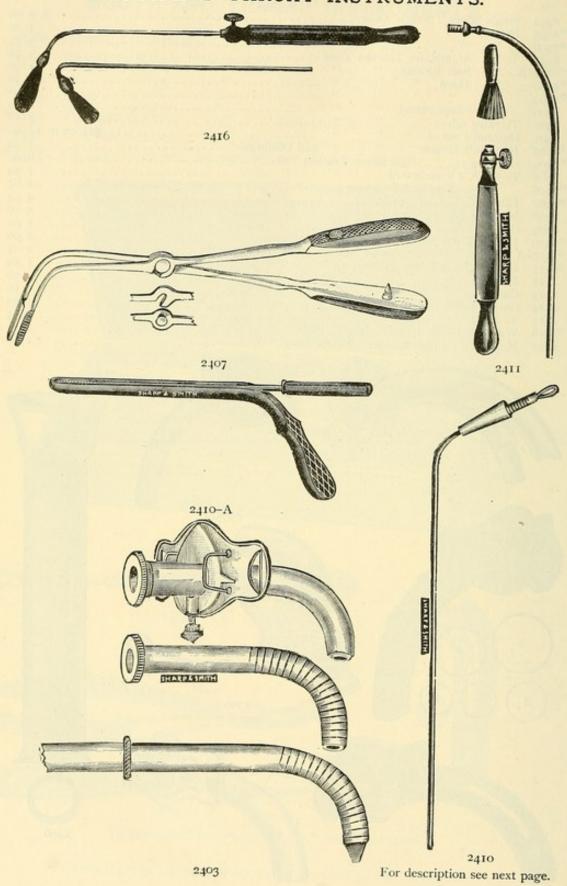




Instruments designated by a * are illustrated.

Other Trachea Instruments, see Supplement end of book.

	MOUTH AND THROAT INSTRUMENTS.
FIG.	(Trachea).
	ngle Silver Trachea Tube. \$ 2 50 suble " " 4 50
*2396	" " with flexible Mirror, 3 7
2397	" Aluminium Trachea Tube
*2397-A *2398	" Soft Rubber " "
*2399	" Hard " "
2400	" Silver Plated " "
	ivalve Silver " "
The second second	mson's Double " and Obdurator 7 50
*2404 Ge	ndron's "Split Silver Trachea Tube 6 oc
	& Co.'s Vertebrated " " 4 50
*2406 *2407 El	" Tracheal Aspirator
240S M	Coy's " 5 cc
	odwillie's " " I oo
	nn's Laryngeal Cotton Applicator, Silver
*2411 Fl	exible Stem Brush Holder, 12 Brushes
2412 Pl	
	lifornia " I 50
	eger's 'Holder 1 6
*2416 W	gner's Brush Holder with two stems and 12 brushes 2 20
2417 M	Kenzie's Brush Holder with one brush
	2404
O O	2397-A
2	2 1 2396 2398
	2399



A NEW LARYNGEAL COTTON APPLICATOR.

By W. A. DUNN, M. D.,

Clinical Instructor in the Diseases of the Throat, and Microscopist to the Hahnemann Hospital.

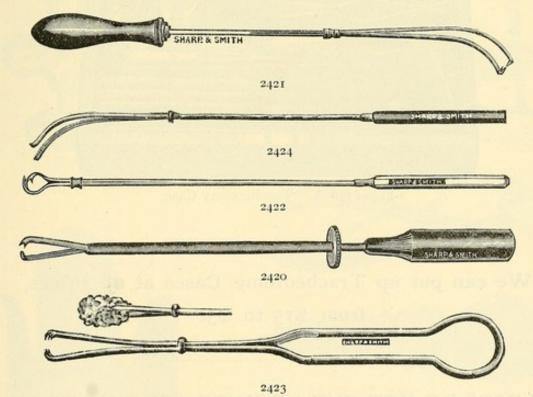
(For illustration see preceding page).

Instead of the Laryngeal brush which is very unpleasant on account of irritation of the mucus surface and the difficulty in keeping clean, I had made for my own use, by Sharp & Smith, a pencil, the shank of which is of German silver next the handle, and the remaining portion of pure silver, that it may be very pliable. The screw, eye and cap are of hard silver.

You thread the eye with absorbent cotton, screw down the cap and trim off the surplus cotton which is changed for each operation.

It has the advantage of being absolutely clean and very much less irritating to the larynx than the brush. It is impossible to leave the cotton in the larynx.

FIG.																					
2418	Ellsberg's	Sponge	Holder	and	Co	ttor	ı A	pp	lica	ito	r	 	 	 		 		 	\$	4	50
2419	Buck's	"	**									 	 	 		 	٠.	 			65
*2420	Hart's	**	**									 	 			 		 		1	00
*2421	Emmet's	**	4.4									 	 	 	٠.	 		 			75
*2422	Sims'	**	**									 	 	 		 		 			75
*2423	Husson's	"	**									 	 	 		 					75
*2424	Fergen's	**	**									 	 	 				 		1	00
2425	Granger's	44	11									 				 		 		1	75
2426	Post Nasa	1 "	**									 		 		 					85



We direct the profession to an easily cleaned and perfectly aseptic sponge holder. The instrument is nine inches long and made out of a single piece of Steel Wire, Nickel Plated. The blades are brought together by an incomplete ring of steel, which can be readily slipped off, thus permitting the instrument to be thoroughly cleaned. The Cut represents the instrument so clearly that further explanation is unnecessary. The advantages that are claimed for this instrument are:

That it is easily cleaned, hence thoroughly aseptic.
 That it is light, strong and durable.
 That it is cheap.

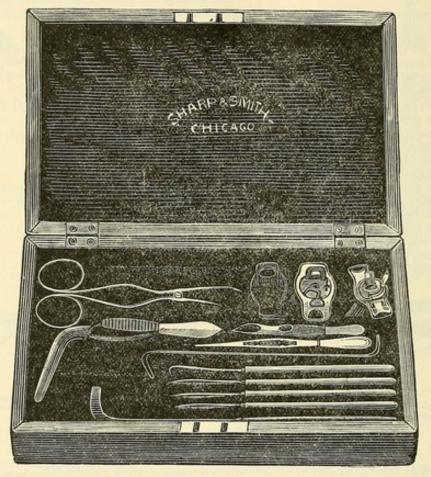


Fig. 1426-A. Tracheotomy Case.

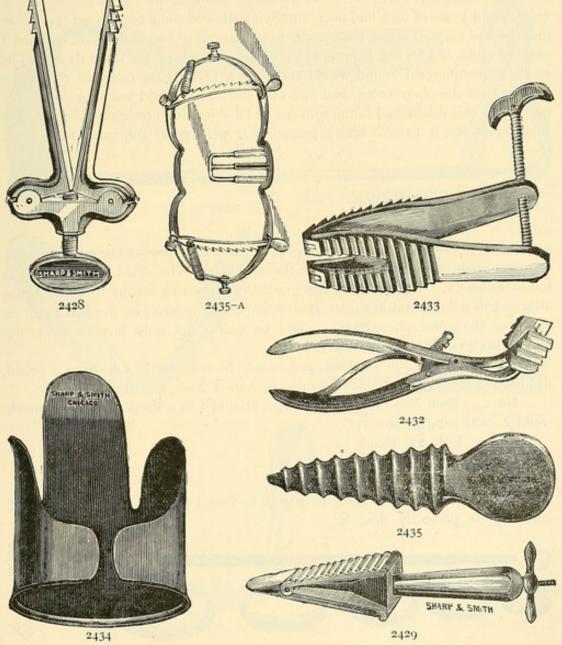
We can put up Tracheotomy Cases at all Prices, from \$15 to \$50.

PLEASE DO NOT CUT OR MUTILATE THIS BOOK.

Instruments Ordered by Number of Figure and of Page, will Receive Prompt Attention.

FIG.

2427	Buck's Trachea	Guide				 	 	 	 \$ 1	50
*2428	Heister's Specul	um Oris				 	 	 	 4	50
*2429	Goodwillie's "	" .				 	 	 	 6	00
2430	Westmoreland's									50
2431	Ehrhart's									75
*2132	Gross'	46							47	00
*2433	Roser's	4.6								75
	Sharp & Smith's	Mouth S								00
-4.54	Charp & Chinen	Mouth of	recuire	, cacia.		 	 	 		000
2434-	A "	41	44	set of	three.	 	 	 	 3	00
2434-		**	66	**	four.	 	 	 	 3	75
*2435	Hard Rubber C	Dral Screw				 	 	 	 	75
2435-	A Whitehead's	Mouth Ga	g			 	 	 	 9	00
Fo	r other mouth ga	gs see pag	e 516.							
1.0	and the second second second									



All instruments designated by a * are illustrated.

2436	Plain Cylindrical	Œsophageal	Bougie	s	 	 	 		 31	00
2437	Olive tip	44	44		 	 	 	 	 1	25
*2438	Sets of Six (6)	**	- 66		 	 	 	 	 3	00
*2439	Dr. I. L. Crawco	ur's "	- 66		 	 	 	 	 I	85

A Dilator for Stricture of the Œsophagus.

By I. L. Crawcour, M. D., M. R. C. S., England.

FORMERLY PROFESSOR OF MEDICINE, NEW ORLEANS SCHOOL OF MEDICINE.

Some time ago I was called to a case of stricture of the œsophagus. A child eight years of age, had accidentally swallowed some condensed lye. Four months had elapsed since the accident, and nothing had been done. When I saw the child, it had not been able to swallow anything for three days. The smallest œsophageal sound would not pass, a small gum catheter or bougie bent against the obstruction, and one with the stylet would not take the proper curve. In this dilemma I bethought me of Otis' flexible urethral probe; this, the smallest (a No. 8 French scale) passed, but with great difficulty; after some



2439

few days I passed Emmet's uterine probe, which is somewhat larger, and in this way was enabled gradually to dilate the stricture. The child meanwhile was fed by enemata. The stricture was gradually dilated by means of ivory bulbs attached to a flat metallic wire. It struck me that a series of flexible bougies, made on the spiral wire system, would be useful, not only in such cases, but also as urethral dilators.

They are fifteen inches long, and as will be seen by the cut, have a broad, flat handle. They terminate in an acorn-shaped bulb, and are as follows:

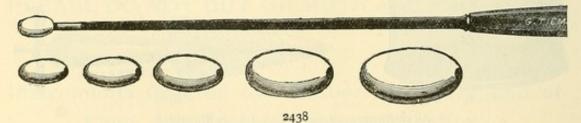
No. 1. Bulb No. 15, French gauge, attached to a short and narrow neck, rapidly increasing to No. 17.

No. 2. Bulb 17, shank 19.

No. 3. Bulb 19, shank 21.

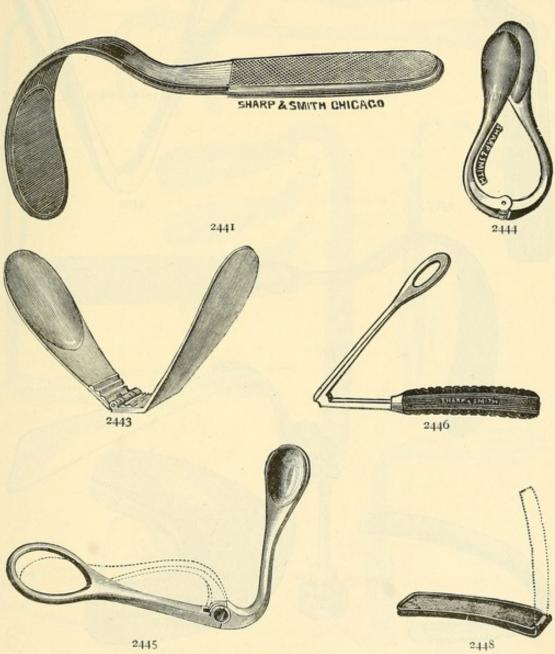
No. 4. Bulb 21, shank 24.

These are the sizes which I think will be found in practice the most useful, and they are perfectly flexible.

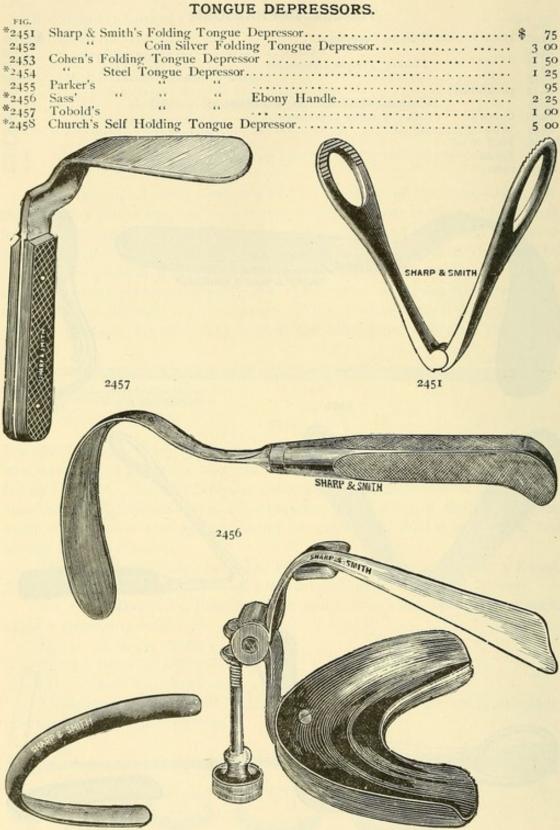


TONGUE DEPRESSORS.

FIG.									
2440	Hard Rubb	er Tongue	Depresso	ors			 	 \$ 1	00
*2441	44 44								00
2442		Folding	Tongue	Depresso	rs		 	 I	00
*2443	44 49	**	**		Metal	Hinge .	 		50
*2444	Goodwillie's	**	**	**				1	00
*2445	66	Fenestrate	d Foldin	g Tongu				I	50
*2446	Green's	Folding T	ongue D	epressors			 		00
2447	Wire								50
*2448	Half Wire	44	11						50
2449	Roosa's	4.6	- 64					1	50
2450	Steel	44	44	41					10



All Instruments designated by a * are illustrated.

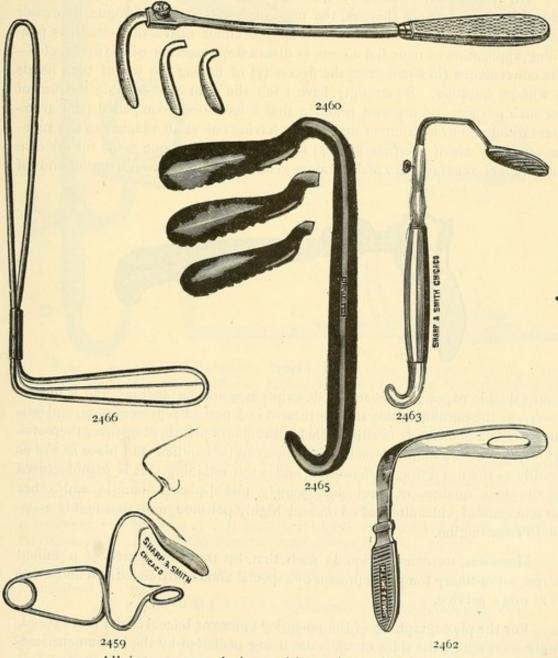


All Instruments designated by a * are illustrated.

2454

TONGUE DEPRESSORS.

FIG.							
*2459	Stehmen's Self-holding To	ongue Depr	essor		 	 \$ 1 50	,
	Rumbold's Tongue Depre						
	Ellsberg's "						
	Bosworth's Steel Tongue						5
	Tuerk's set of 3, "						
2464	" H. R. Cov'd "	**	set of	3	 	 5 00	,
*2465	" Single "						
		44					,



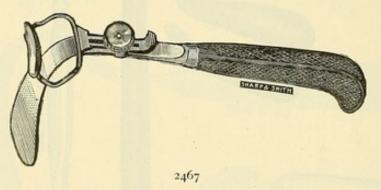
All instruments designated by a * are illustrated.

Fig. *2467 Dr. J. J. Higgins' Self-retaining Tongue Depressor \$ 4 50

A SELF-RETAINING TONGUE DEPRESSOR.

By J. J. Higgins, A. M., M. D.

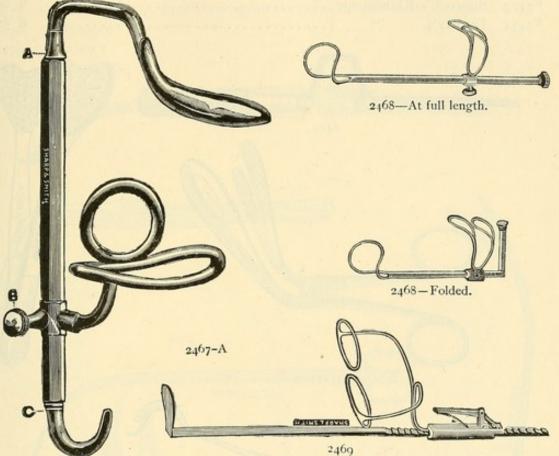
Dr. Higgins says, among other things: In examinations of the fauces, and especially in operations thereon, the need of a self-retaining tongue depressor and speculum oris is sadly felt. For all the minor operations—such as penciling, application of remedial agents in divers ways, excision of the uvula, etc.—the convenience (in some cases the necessity) of having the use of both hands is without question. So strongly have I felt the want of a suitable instrument for such purposes in my own practice that I have been compelled (the armamentarium of our instrument makers not having one at all adapted to the regular and daily use of the practitioner) to invent and have one made for my own use and feel constrained to make it more generally known through the columns of



your valuable paper. Mechanical description would be tedious, and is unnecessary, as the cut illustrating the instrument is a perfect representation, and tells the story at a glance. It is adjustable for any size of mouth, or opening thereof—with not even discomfort, much less pain—can be handled and place in situ as readily as the usual tongue depressor, and is self-retaining. It is manufactured of the best quality of steel—handsomely nickel-plated—handle and other attachments of vulcanite, baked on and highly polished, and thoroughly aseptic in construction.

Moreover, its construction is such that, by the simple turn of a milled screw, an ordinary tongue depressor of a special and improved pattern and shape is at one's service.

For the photographing of the posterior fauces or buccal cavity it is exceedingly serviceable, the sides or walls not being occluded by the instrument as is the case with vaginal or other specula, but they are seen in their entirety.



2469. A new Self-Retaining Uvula and Palate Retractor, by W. Peyre Porcher, M. D., Charleston, S. C., and of it he says: This instrument as will appear from the cut, is an ordinary palate-hook, upon the stem of which a slide-attachment has been added. From the front of this slide project two arms, which end in two medium-sized rings, and at its rear is an automatic spring-catch which penetrates the perforated stem at short intervals. When in position the two rings on the arms rest on either side of the nose, just above the alveolar processes, and are easily retained there by the counter-pressure of the retracted palate. It is light in construction, weighing but four hundred and forty-five grains, easily adjusted, and releases both hands for operation and the management of the mirror. It has been highly commended by distinguished laryngologists, as well as by general practitioners.

The following letter was received from Dr. J. Solis Cohen, to whom I submitted a model of the instrument, and he has kindly consented to its publication:

1421 WALL STREET, PHILADELPHIA, September 28, 1887.

My Dear Doctor:—To-day is the first opportunity I have had to give the instrument you forwarded to me a trial. I was very successful in using it and without cocaine. I like it very much indeed, and I think it the simplest mechanism I have seen. Yours very truly,

J. Solis Cohen.

MOUTH AND THROAT INSTRUMENTS. FIG. *2470 Goodwillie's Oral Saws...... \$ 2 60 Dobell's Tongue Holding Forceps..... *2471 4 50 Cuscoe's " " " *2472 3 30 *2473 Simrock's Rhinoscope..... 6 00 *2474 Duplay's 6 50 2470 2472 2471 2474

All instruments designated by a * are illustrated.

2473

	MOUTH AND THROAT INSTRUMENTS.
*2475	Fauvell's Laryngeal Forceps\$3 oc
*	MacKenzie's Antero-posterior Laryngeal Forceps 2 75
*2476 2476A	" Lateral " "
2477	Luer's ,, and Laryngeal Forceps 6 75
*2478	Mathieu's " " 4 50
*2479	Sajou's " " 2 50
*2480	Simrock's " " 3 3c
	SHARP & SMITH
,	
4	
	2480
	A CHINA CONTRACTOR
10	
11/	
11	
	2479
	2479
	SHARP & SNITH
	SHARL & SMITH
- /	
A	
0	
	2475
1	
	A
A	
AR I	D B SHARP & SMITH CHICAGO
A V	2478
1041.0	2476

Instruments designated by a * are illustrated.

****	MOUTH AND THROAT INSTRUMENTS.	
FIG. 2481	Schroeter's Throat Forceps and Lancet \$11 2	-
2482	A 1 1 A IT 111 31	50
*2483	" Throat Forceps, Large 2	
*2484	Cuscoe's " 4	
*2485		
*2486 2487		
2,88		
2489		
2490	United States Throat Forceps	
*2491	Burgess' " 3:	
*2492 *2493	Brun s 3 ;	-
2494		85
*2495	Flexible " "	
2496	Tascher's " " 2 !	50
2497	Rumbold's " set of 4	75
-		
1		
	2485	
	HIMS VARMS	
	量制	
		1
		1
		M
	2483 2486 2484	
	4403 4400 2404	

All Instruments designated by a * are illustrated.

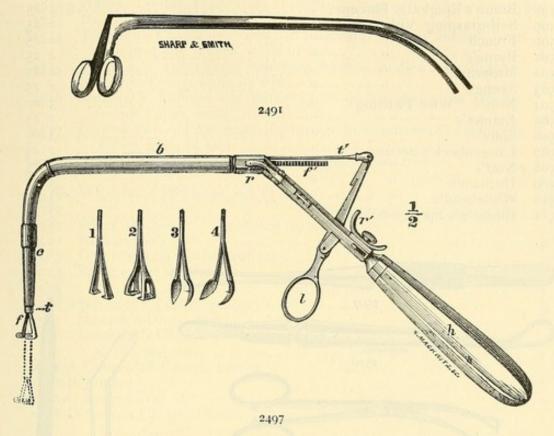


Figure 2497. Tubular Laryngeal Forceps. Traction on the lever l pushes the two rods t' and f' into the tube b, and causes the forceps to descend to the required distance as marked by the dotted lines; then pressure on r' which is connected with the clutches r, will arrest the serrated rod f' and prevent the forceps f from descending farther into the larynx. If the rod t' is still pushed by the lever l into the tube l, the tube at l will close the forceps on the object in the larynx.

1, 2, 3 and 4 represent different shaped forceps that may be attached to the instrument.

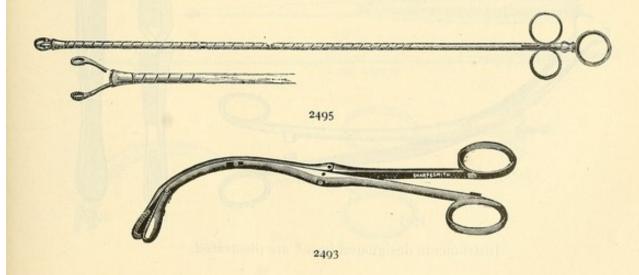


FIG.	MOUTH	AND T	HRO.	AT IN	STRUI	MENTS	i.		
2498 2499 *2500 *2501 *2502 *2503 *2504 2505 2506 *2507 2508 2509 *2510 2511	Braun's Epiglot Self-grasping V French Byrne's Musseaux' Skene's Nott's Wire T Emmet's " Sims' " Langenbeck's S Nott's Durham's Whitehead's Ellsberg's Spon	Cwisting " " " " " " " " " " " " " " " " " " "	Forcep "" "" "" "" "" "" "" "" "" "" ""	S				2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	25 25 25 25 25 25 25 25 25 25 25 25 25 2
	SHARE & SHITH	2507				4			
0		2510				1		The state of the s	
	8			0				THE REAL PROPERTY.	
C		2500		Ö					
000		2500 SWART & SMITH, 2502	O CHICAGO.	Ö				0.00	
000		SHARP & SMITH,	CHICAGO.	O				CHARLES AND A COMPANY OF THE COMPANY	

Instruments designated by a * are illustrated.

	MOUTH AND THROAT INSTRUMENTS.		
FIG.	W LID U.M. I D.		
2512	Hanks' Double Tenaculum Forceps\$		
2513	Ball's " " "	I	85
*2514	Tiemann's Canula Forceps for removing foreign bodies from		
10000	Tracheotomy Tubes, while in situ	3	50
2515	Trosseau's Forceps for removing foreign bodies from Trache-		
	otomy Tubes while in situ	2	50
2516	Meunier's Forceps for removing foreign bodies from Trache-		
2515	otomy Tubes, while in situ	2	25
2517	Collins' Forceps for removing foreign bodies from Tracheotomy Tubes, while in situ		
*2518	Bristle Probangs for removing foreign bodies, best		50
*2518-	A " " common	I	25
2519	Whalebone Probangs, set of six	3	00
2520	" " with Ivory tips	-	50
2521	Silver Bucket " in three parts	2	65
2522	Richardson's "	2	65
2523	Graefe's Articulated Probangs		50
2524	Sponge and Whalebone "		20
2525	" " per doz	1	25
2526	Schaefer's Throat Scoop		25
2527	Stoerck's Drop Tube		85
*2528	Bosworth's Curette for use in glandular hypertrophy at the vault		
	of the pharynx	I	30
2528-1	A Concealed Caustic carrier	I	50
2528-1	B Jointed " "	I	50
2528-0	C Long Silver " "	I	15
2528-1	D Lente's Caustic Probe	I	30
_	EIE'S		
(0)			
10			
1	2518-A		
	MARIE STITE		
	2528		
	2520	1270	0
	SHARP & SMITH		_
	with respectfully in chroming particles, with the without office in collection of the		
1	2518		
1	SHARP-SMITHP		
1			
00			
	2514		

FIG.

2529

2530

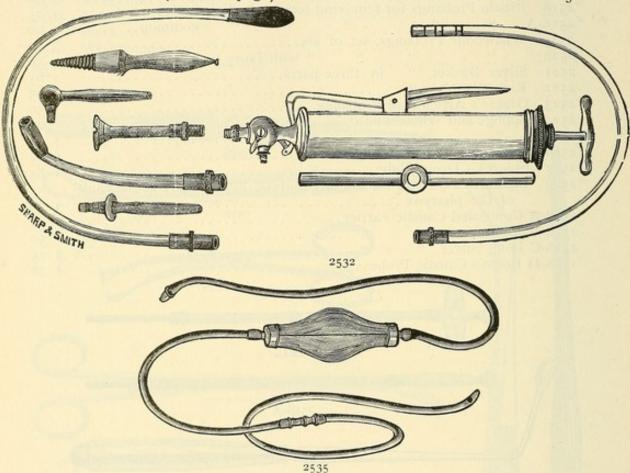
MOUTH	AND T	THROAT INSTRUMENTS.	
Maw's English	Stomach	Pump\$1	5
Gray's "	46	" I	
Plain	66	"	6

00

50

Pl 2531 75 *2532 Sharp & Smith's 12 50 2533 Tiemann's H. R. 2534 *2535 Toswell's Siphon 2 00 Stomach Pump attachment for C. & S. Aspirator..... 2537

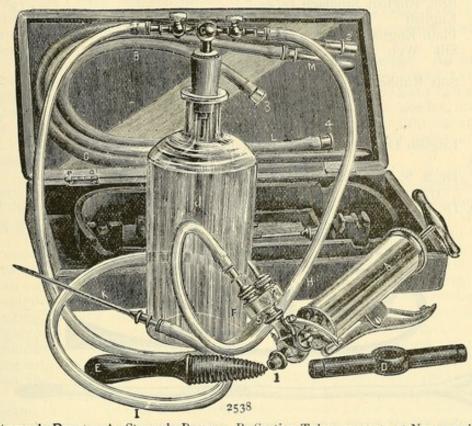
*2538 Excelsior Stomach Pump, Aspirator and Enema Syringe combined (see next page)..... 15 00



Washing out the stomach, and the aspiration of liquids secreted by it, is more and more practiced in Germany, since Kussmaul highly praised this method. Dr. Schliep uses the Syphon Principle in nearly all affections of the stomach, especially in chronic gastritis, with or without dilatation. The cure of chronic catarrh, according to his account in the Deutsche Klinik, vol. xiv., would require a limited number of applications. In simple catarrh five would suffice He uses this method even in dyspepsia of consumptive on an average. patients. In dilatation of the stomach, he empties that organ with the pump every day. He performs the washing out, even in cancer, with pure water; or adds bicarbonate of soda to the water if the liquids be very acid; or permanganate of potash if these liquids show signs of fermentation; carbolic acid when they contain vegetable parasites; boracic acid as a disinfectant, and tincture of myrrh, in atonic dyspepsia with abundant secretion of mucus.

Instruments designated by a * are illustrated.

THE EXCELSIOR STOMACH PUMP, ASPIRATOR AND ENEMA SYRINGE.



Stomach Pump.—A, Stomach Pump. B. Suction Tube, connects at Nos. 1 and 3. C, Stomach Tube, connects at Nos. 2 and 5. D, Mouth Gag. E, Mouth Screw. Aspirator.—A, Pump. F, Valve Box, connect as per cut. G, Double Stop Cock connect with tubes H and I. H—I, Tubing connect to Force or Exhaust with Valve Box as per Arrows. J. Bottle. K, Needle. Enema Syringe.—A, Pump. B, Suction Tube, connect at Nos. 1 and 3. L, Tubing, connects at Nos. 4 and 5. M, Rectal Nozzle.

A complete Stomach Pump, Aspirator and Enema Syringe, combined, has long been sought for by the medical profession. In offering the Excelsior Pump and Aspirator we have combined three distinct instruments, each complete in itself, thus making one portable apparatus, and avoiding the necessity of purchasing each instrument separately.

In manufacturing the above we have taken mandril drawn tubing for the barrel of the pump which offers an even surface to the packing of the piston

and insures perfect suction.

The valves in Valve box F, are made of metal, ground to fit the sockets securely, and cannot be injured by fluids or become dried as the oiled-silk valves formerly used. This enables the practitioner to use the Pump both for Forcing or Exhausting Fluids or Air.

The valves in Valve Box F can be easily cleansed by unscrewing the conic

nozzles at F.

In order to make as compact and portable an instrument as possible, we have fitted the Double Stop Cock G with a Conic Soft Rubber Stopper, which will fit any ordinary bottle, thus avoiding the necessity of carrying a bottle in the same case with the Pump.

All the metal parts are Nickel-plated and the whole is encased in a polished

Wood Box, Velvet lined.

The combinations of parts for Stomach Pump, Aspirator or Enema Syringe separately, are formed as above. For prices, see preceding page.

	MOUTH	AND	THROAT	INSTRUMENTS.		
2539	Best English	Stomack	tubes			-
	English	66	" funnel	and		50
2540			i i i i i i i i i i i i i i i i i i i	end		50
2541	Plain English				I	00
2542	Silk Web	"	" best		2	50
2543		"	" funnel	end	3	00
2544	Soft Rubber	"			I	50
*2545	11 11	4.6	" funnel	end		00
2546	16 16	- 66	44 44	" with bulb in center		00
2547		44				50
*2548	English Doub	le Chanr	nel Stomach T	ube		-
2548A	" "	"	"	" silk	-	00
*2549	Dr S S Cobe	an's Ann	aratus for Lar	Silk	4	50
2549	trie effective	en's App	aratus for Lav	rage in the treatment of gas-		
	The anectic	ons, with	28 inch velve	et Eye Stomach Tube	2	25
2549A	Dr. S. S. Cohe	en's App	aratus for Lav	age in the treatment of gas-		
	tric affectio	ns, with	24 inch Velve	t Eye Stomach Tube	1	85
		THE OWNER OF THE OWNER,	0			
	1					
			a.			

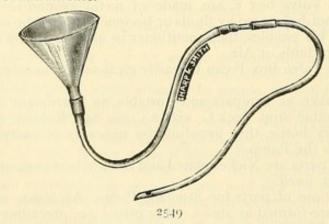
LAVAGE IN THE TREATMENT OF GASTRIC AFFECTIONS.

2545

2548

By Solomon Solis-Cohen, M. D., of Philadelphia, Pa.

Any agent, or any method that promises to enlarge our therapeutic resources against those obstinate conditions of "gastric catarrh," "functional dyspepsia" etc., that are a source of distress to the patient, of annoyance to the physician, and of profit to the pepsin and patent medicine manufacturers, deserves at least a respectful consideration. The method that I desire briefly to present to the Society this evening—lavage, or irrigation of the stomach—has been employed for many years in Europe, so that it can no longer be considered to be merely on trial. In America, however, it has not won general introduction, nor am I aware that any discussion of it has been had before this body. This, then, is my excuse for calling attention to a subject in connection with which I have nothing new to communicate.



LAVAGE IN TREATMENT OF GASTRIC AFFECTIONS.-Continued.

The manner of performing lavage, recommended by the latter observer, is that which I have followed in the few cases in which I could induce private patients to submit to it. The results obtained in these cases have been sufficiently encouraging to induce me to continue, at least to propose it wherever it

seems applicable.

The apparatus and its employment are sufficiently simple. An assophageal tube, with blunt, double-eyed extremity of flexible rubber, about twenty-eight inches long, and from one-quarter of an inch to a little less than half an inch in diameter—practically an enlarged catheter, and made of similar material—is attached by a small section of glass tubing to a soft rubber tube about one yard in length, into the free extremity of which a glass or rubber funnel of from six ounces to eight ounces' capacity, is inserted.

The patient sits or stands, facing the physician. The æsophageal tube having been dipped into warm water or warm milk, is placed within the entrance of the æsophagus, and is then propelled by successive pushes into the stomach, the process being facilitated by efforts at deglutition on the part of the patient.

The first introduction of the tube, and possibly the second and third, will occasion more or less dyspnæa, often nausea and retching, rarely vomiting. These effects, though partly physical, are largely psychical, and will disappear with tolerance. The dyspnæa may be immediately checked by insisting on full inspirations. Nausea is overcome as soon as the water enters the stomach, floating the tube away from immediate contact with the mucous membrane. In highly neurotic subjects it may be well to prepare for the operation, at first, by administering full doses of bromides. I have tried anointing the end of the tube with a solution of cocaine in glycerin, but cannot claim any striking benefit from the procedure. Firm but skillful handling of the tube is the best sedative.

Sometimes during the withdrawal of the solution solid particles of food (grains of corn in one of my cases) may become impacted in the eyes of the tube, and the flow of liquid will cease. A little more of the solution must then be introduced, both to wash away the obstruction and to re-establish the syphon current. If the tube should be pushed too far into the cavity of the stomach, it may curve upon itself, and the syphon will not work. Withdrawal of the tube for a few inches will remedy this; if the flow is not readily established, it is said that it may be favored by manipulation of the stomach, and efforts at coughing may be made by the patient. I have not had occasion to resort to these devices.

When *lavation* alone (washing) is the object of the procedure, a weak alkaline solution is employed; a drachm or two of sodium sulphate, sodium chloride, sodium borate or sodium bicarbonate, in a quart of warm water, at about 100° F.

Should it be considered necessary, however, various sedative or antiseptic medicaments may be added to the lavage solution. Those most highly recommended are resorcin (1 per cent.), boric acid (1 per cent.), creasote (1 per cent.), carbon disulphide water (one part of a solution containing 15 grains to the quart, to two parts of water), charcoal powder (two to four tablespoonfuls), chloroform water (saturated), bismuth subnitrate (two tablespoonfuls to the pint).

In the use of agents, like resorcin, carbolic acid, etc., the liability to absorption if the solution be not all removed, must not be forgotten. In using what he terms "milk of bismuth," Dujardin-Beaumetz advises that the solution be allowed to remain a few minutes in the stomach, so as to allow the bismuth to

be deposited; after which the supernatant liquid may be withdrawn.

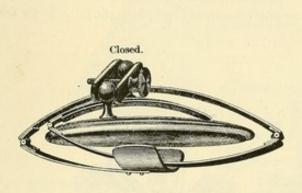
Lavage should be performed when the stomach is empty; therefore some authors recommend the hour of rising in the morning. I have found noon—say four or five hours after a light breakfast—or the same interval after lunch or dinner, to be more convenient for myself, and to answer as well in most instances. One lavation daily is usually enough. After a while the intervals may gradually be lengthened, until the process is discontinued.

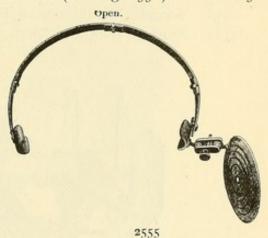
MOUTH AND THROAT INSTRUMENTS. FIG. *2550 Head Mirrors with plain head band, 3 inch..... 2550 A 31/2 " 2550 B 4 5 00 *2551 . with improved head band, 3 inch.. 5 25 3½ " 2551 A 5 75 2551 B 4 *2552 Schroeter's head band, 3 inch.. 4 25 66 2552 A 66 66 31/2 4 75 66 " 2552 B 5 50 2551 2550 2551 2554

Fig. 2554. Metal Head Band for holding a Head Reflector on the Forehead. There is a joint on top, in the middle of the band, which allows the posterior half to be turned into the anterior half. The pads are made of black rubber, and may be turned into line with the head band. The metal band should not be longer than is required to easily reach from the forehead to the occiput. For price see next page.

All instruments designated by a * are illustrated.

FIG.			
2553	Ingals' Mirror and Head Band, 4 inch\$	5	50
*2554	Rumbolds' Head Band to go over the head	2	50
*2555	Simrock's " " " "	3	25
*2556	Sardy's Combined Head Band and Mirror Protector for 3 inch		
	Mirror	2	40
2556A	Sardy's Combined Head Band and Mirror Protector for 31/2 inch		
	Mirror	2	50
2556B	Sardy's Combined Head Band and Mirror Protector for 4 inch		
	Mirror	2	75
2556C	Sardy's Spectacle Frame Head Band		00
2557	Semeleder's "		00
2558	Plain Head Bands (see Fig. 2550)	1	00
2559	Schroeter's Head Bands, with Nose Rests (see Fig. 2552)	1	50
2560	Improved " " " (see Fig. 2551)		50
			1





SARDY'S COMBINED HEAD BAND AND PROTECTOR.

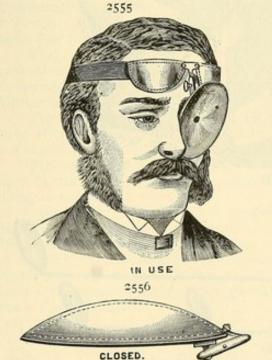
(Patent applied for.)

These cuts, figures 2556, show a new head band which possesses several advantages over the old styles.

When closed it affords perfect protection to the mirror, and is convenient to carry.

When open it is self-adjustable to any forehead, and rests more comfortably and with greater security than other head bands. Any mirror attached to it can be brought into perfect juxtaposition with the eye, and when not in use can be easily turned up from the forehead.

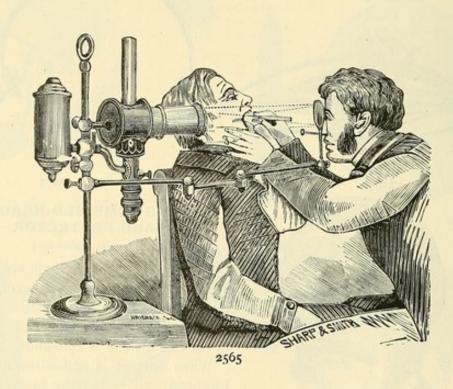
They are made of the best material, with silk bands, and metal part oxidized so as to prevent reflection.

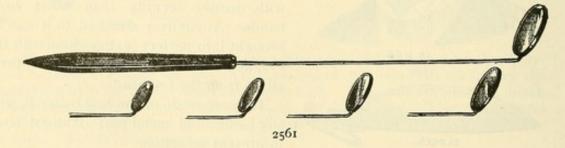


2556

All instruments designated by a * are illustrated.

FIG.					
*2561	Throat	Mirrors,	in handle, 5 sizeseach §	3	65
2561A		44	without handle, 5 sizes"		55
2561B	44	- 44	set of 5 in case, with one Universal handle	4	00
2562		**	extra qualityeach		75
2563	44	**	oval	1	00
2564	Tobold'	s Large	Laryngoscope in case, with Head Mirror and		
	two T	hroat N	Iirrors	18	00
2564A	Tobold's	s Small	Laryngoscope in case, with Head Mirror and		
	two T	hroat N	lirrors	10	50
*2565	Tobold'	s Large	Laryngoscope in case, with Student Lamp	20	00
2265A	"	Small		15	00
2556	Seeger's	Modific	ation of Tobold's Laryngoscope, for gas	25	50
*2567	Stucky's	Improv	ed Laryngoscope complete (see page 480)	50	00

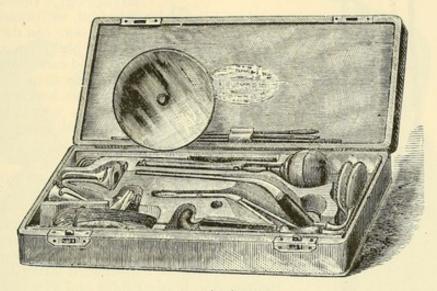




Instruments designated by a * are illustrated.

LARYNGOSCOPIC CASES.

FIG.									
2567A	Sharp &	Smith	's No. 1 I	Laryngoscopic	Set	 	 	 \$ 19	25
2567B	44			44	" .	 	 	 15	00
2567C	"	66	No. 3	44	".	 	 	 II	00
2567D	"	- 66	No. 4		" .	 	 	 9	00
2567E	Fowler's	Lary	ngoscopic	Set		 	 	 13	50
2567F	Bosworth	ı's	"	"		 	 	 16	50



2567-A

Fig. 2567A Sharp & Smith's No. 1. Laryngoscopic Set contains: 1 3½ inch Glass Concave Mirror, 1 Schroeter's Head Band, 1 Post Nasal Syringe, 1 Scoop Powder Blower, 1 Pair Polypus Forceps, 3 Throat Mirrors, 2 Universal Handles, 1 Tongue Depressor, 1 Sponge Holder to fit Universal Handles, 1 Set Toynbee's Ear Specula.

Fig. 2567B Sharp & Smith's No. 2. Case containing 3½ inch Glass Concave Mirror, Head Band and Handle, 3 Throat Mirrors, 1 Post Nasal Syringe, 1 Sponge Holder, 1 Brush Holder and 6 Brushes, 1 Tongue Depressor, 2

Universal Handles.

Fig. 2567C Sharp & Smith's No. 3. Case containing 3½ inch Glass Concave Mirror, Head Band and Handle, 3 Throat Mirrors, 1 Universal Handle, 1 Tongue Depressor.

Fig. 2567D Sharp & Smith's No. 4. Case containing 3 inch Glass Concave Mirror, Head Band and Handle, 2 Throat Mirrors, 1 Universal Handle, 1

Tongue Depressor.

2567E Dr. Fowler's Case containing 3½ inch Glass Concave Mirror, Head Band, 1 Tongue Depressor, 2 Vials, 3 Throat Mirrors, 2 Universal

Handles, 1 Brush Holder, 6 Brushes.

2567F Dr. Bosworth's Case containing 3½ inch Glass Concave Mirror, Nasal Rest Head Band, 1 Post Nasal Syringe with Ear Nozzle, 2 Throat Mirrors, 2 Universal Handles, 1 Tongue Depressor, 1 Sponge Holder, 1 set Toynbee's Ear Specula.

All of our Cases are morocco covered and lined with velvet.

Laryngoscopic sets put up to order.

Instruments designated by a * are illustrated.

L'ARYNGOSCOPE.

We desire to call the attention of the profession to a new illuminating lamp, especially adapted to, and filling, as we believe, the wants of those who make laryngology, rhinology and

otology a specialty. Indeed, we cannot see how any member of the profession can do without a lamp suitable for thoroughly illuminating the cavities of the throat, nose and ears. This Laryng-oscope is nearer to perfection than any laryngo-scope or illuminating lamp we have ever seen, on which ordinary house gas is used. It gives a whiter, more concentrated and intense light than any of the lamps in the market. We believe, after a thorough trial by the profession, it will establish itself as the best laryngoscope.

The cut represents the Laryngoscope mounted on a nicely ornamented iron table-stand. The following is a brief description of the lamp: The light chamber is made of a cylinder of sheet metal, and is four inches in diameter and eleven inches long, with a downward extension (for admitting the burner) three and one-half inches in diameter and one and one-half inches in length,

Also, an upward extension or chimney three inches in diameter, and three inches in length. These extensions are nicely fitted into openings made into the light chamber. A concave metallic reflector (of white metal) is placed in one end of the cylinder; near the other is a double convex lens, which concentrates the rays of light from

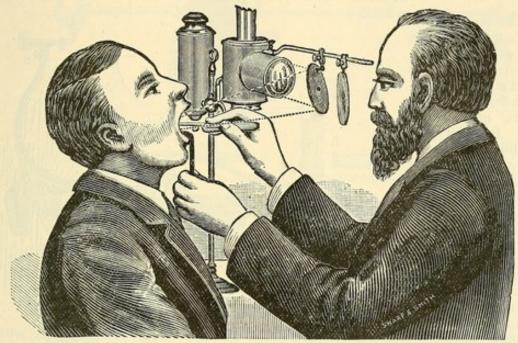
the burner. The lens is fastened in position by a thumb screw. A bent arm, about one-fourth of an inch in diameter, is secured about two inches above the light chamber-by being passed through a perpendicular post on the light chamber-and is screwed into a threaded perforation in the chimney. The rod extends about two feet from the chimney, and serves to hold the mirrors in position. On this rod is fastened by a thumb screw, two mirrors (four inches in diameter) which have ball and socket joints, and can be placed in any position-one is a plain mirror, by which the patient can see, in his own throat and nose, what the operator or any one standing behind his chair sees. This is a great desideratum when you desire to demonstrate to the patient or his friends the condition of the diseased organ. The other mirror is convex, for reflecting the light. Both the plain and convex mirrors can be used for reflecting, if desired, in this way concentrating all the light coming from the lamp The light chamber has a wedge shaped cylinder, which is fastened on the end opposite the reflector, and serves to shade the eyes of the operator. The shade and mirrors can be changed, so that the operator can have his patient on his right or left side.

Its convenience, simplicity, and stronger, whiter, and more concentrated light commend it at once to the profession, and especially to laryngologists.

For price, see page 478.

LARYNGOSCOPES.

E I Use			
*2568	Devilbiss' Laryngoscope with Lamp (complete)\$1	5	00
2568-1	A " without Lamp 1	1	50
2568-	B " Condenser, plain Mirror and Mirror bar	8	50
2569	Czermak's Laryngoscope	7	50
2570	Ellsberg's Pocket Laryngoscope	4	50
2571	Semeleder's Laryngeal Instrumentseach	7	50
2572	Gibbs' " Ecraseur	2	25



2568

This Laryngoscope is a modification of Mackenzie's light concentrator, and although simpler in construction than Tobold's yet it possesses several advantages not found in the latter instrument.

It is provided with two mirrors, one plain and the other concave, both of which are attached to a stationary mirror bar by means of ball and socket joints so arranged that they may be easily changed to any position on the bar, and

inclined to any angle.

The plain mirror enables the physician to show his patient the condition of the affected parts, and, if needing treatment explain its necessity. By this method patients may ofttimes see the extent and nature of their disease, and thus be induced to receive treatment who might otherwise consider it of but little importance, not demanding medical assistance. We venture the assertion that patients will go for years with an ulcerated or otherwise inflamed condition of the nares, who, if shown the actual state of affairs, would give the matter the attention that the case demanded, for not one out of a large number, who, if the same diseased condition existed externally, would not seek medical assistance, and that promptly. If deemed advisable, the patient may be shown from time to time the changing condition of his disease, and thus keep interested in its treatment. By this device the patient can see to keep himself "in light," thus relieving the physician from the necessity of frequently adjusting the mirror.

This Laryngoscope can be adjusted to a student's lamp, and may be raised or lowered by means of a single set screw. This advantage will be appreciated by those who have used the "Tobold," for in order to change the height of the

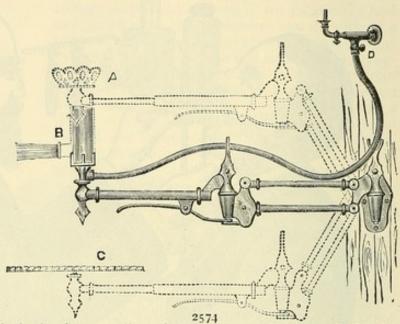
latter, it requires the adjustment of three screws.

FIG.		LAF	IYS	VGOSC(OPES.				
2573	Bishop's	Laryngoscope.					 	.8 3	50
*2574	**	" 2	and	Bracket,	polished	brass	 	. 13	50
2575-A		"			Nickel-p	lated.	 	14	50
2575-B		"	Bra	cket only			 	. 10	00

A NEW ADJUSTABLE LAMP BRACKET.

Reprinted from The Journal of the American Medical Association. By Seth S. Bishop, M. D., of Chicago, Ill.

The accompanying cut illustrates the working of an adjustable lamp bracket I have designed for carrying lights, instruments, It overcomes the difficulty of properly illuminating various parts from any desired direction, and at any given angle. The lamp is easily adjustable to any point lying within a perpendicular line a foot and a half in length (from A to C) and it will swing



through the arc of a circle, having a radius of three feet. It is supplied with joints, parallel arms and an extensible lamp holder, in such a manner as to place the light (B) either within a few inches of any wall to which it is attached, or at any intermediate point in a horizontal, to a distance of three feet from the wall. It is so constructed that in order to raise or lower the light, you need only to press the thumb and finger on the extension arm and brake beneath, so as to close them together; then set the lamp at the desired point; release the brake, and it sets automatically, holding the light wherever it is piaced. These points will be appreciated by those who have to use light concentrators

on the imperfect brackets now in use.

The lamp holder is prepared to receive an Argand burner connected with a flexible gas tube, so that the bracket may be attached to a wall or desk in any part of an office or house, and connected with the gas fixtures like an ordinary drop lamp. Or, where there is no gas, an oil lamp holder (A) is screwed on instead of a gas burner (B), and an oil lamp of large size may be used to obtain brilliant illumination. The bracket is very strong, and will support a weight of five pounds or more. Its utility is extended by substituting a tray (C) for the lamp receiver (A), so as to make it a convenient instrument holder for surgeons and dentists alike. I have employed this bracket in my office a sufficient length of time to demonstrate its superiority over any other that I have been able to find after a most exhaustive search. The bracket is made of brass or iron, and is an elegant addition to any office, both as to utility and beauty.

The nickel-plated light concentrator (B) of my own design, is made to use over any Argand chimney, and is much less expensive than any in the market.

The bracket is fitted with an oil lamp in the holder (A) and a light concentrator when so ordered.

CONDENSERS, Etc.

*2576	Boekei's	Light Condenser and Bracket, complete	\$12	50
2576A	44	" only		00
*2576B	46	Bracket and Mirror Bar for Light Condenser	500	00
*2576C	"	Light Condenser without Bracket or Mirror Bar		50

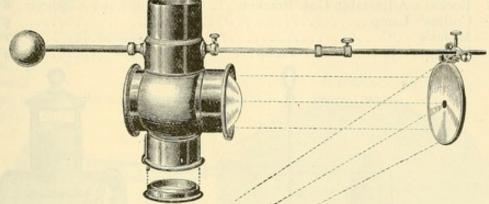


Fig. 2576. Bracket and Laryngoscope Combined.

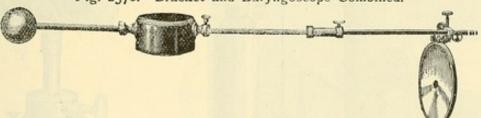


Fig. 2576 B.

Fig. 2576C. Plain Laryngoscope.

This is preferable to any other Light Condenser for the following reasons:

First. On account of the spherical or round form of the flame chamber, which has a tendency to concentrate the rays, producing thereby a more powerful light than could be otherwise obtained. The light, thus condensed, is thrown forward through the lens on to the mirror by a reflector in the rear.

Second. To avoid the annoyance of placing the mirror in the right position each and every time when brought to use, we have added a rod or bracket fastened to a band, which slides over the chimney and rests on the sphere, while the rod penetrates the chimney, holding it steadily and parallel with the focal line. At the extreme end of this rod the mirror is suspended by means of a ball joint,

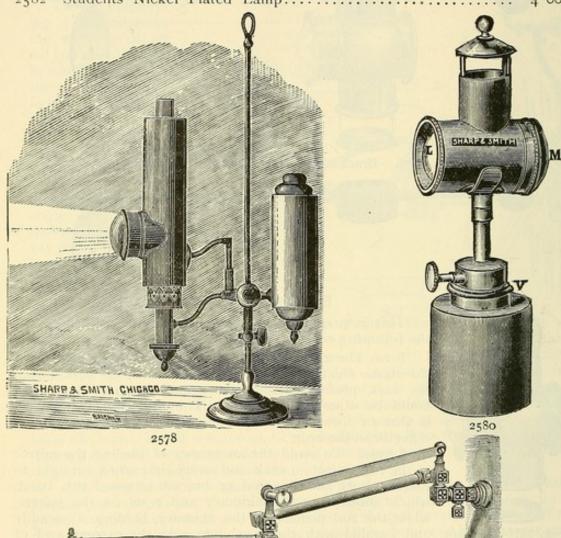
similar to the one used on the improved headbands, to allow the direction of the light wherever needed. The ball joint can be raised or lowered according to the size of the mirror. With this bracket the operator is never hindered in his movements, as the mirror is thereby always held in the local line, which is most decidedly an improvement over the independent stand or headbands and all the other devices that have been used before for that purpose.

Third. A ball-shaped weight which screws on the back of the band counterbalances the mirror when adjusted to a gas bracket or lamp. The Laryngoscope with its attachments is constructed with screw-joints and can readily be taken apart for convenient packing.

In connection with the above we recommend our Adjustable Gas Bracket.

CONDENSERS, ETC.

2577- *2578	Mackenzie's A " Ingals' A "	"		with	Student	Lamp	 	 	9	00
*2579 *2580 2581	Boekel's Adj Collins' Lan Miller's " Students' Ni	np	Gas B	racket			 	 50	8 5 11	25



To satisfy the long felt want for a good adjustable Gas Bracket, to be used especially in connection with our "Improved Mackenzie Laryngoscope," we have succeeded in constructing one which we think will gratify the demand of the trade in every respect.

Extreme length, 30 ins.

2579

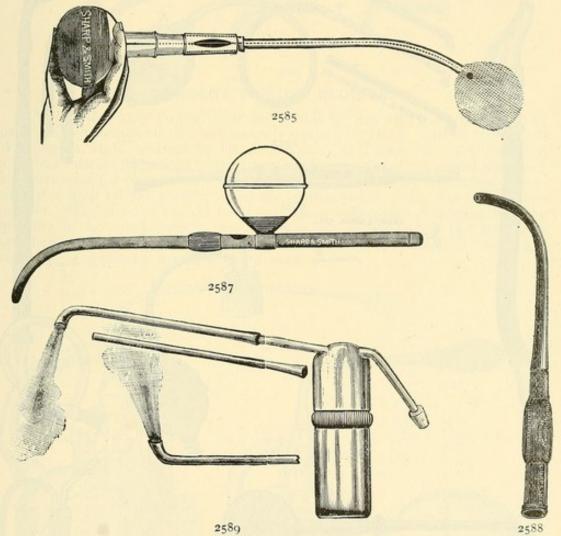
The Bracket (as represented in the above cut) is more easily raised and lowered than any of the Brackets that have been in the market before.

As the handle "a" is at the same time the set-nut for the Friction Disc, by means of which the Bracket is held in position, only one hand is required to loosen, move and set the Bracket with ease.

This Bracket is made stronger than any of its kind in the market, fully strong enough to bear the required weight.

POWDER BLOWERS.

FIG.										
2583	Ellsberg's	Powde	r Blowe	r			 	 	 81	65
2584	Bosworth	's Glass	Powder	Blower			 	 	 	35
2584-	A "	Hard	Rubber	Powder	Blower	r	 	 	 I	00
	Clay's			**						00
	Leffert's			44	66				T	75
*2587	44			66					T	75
	"with	mouthn	iece	"						00
	Devilbiss'			"	"					00
	A "			"	"	with				
	В "			"	66	with				50
	Goodwilli	o'e		"						50
W /		es		"						25
2591	Kelly's						 	 	 2	00

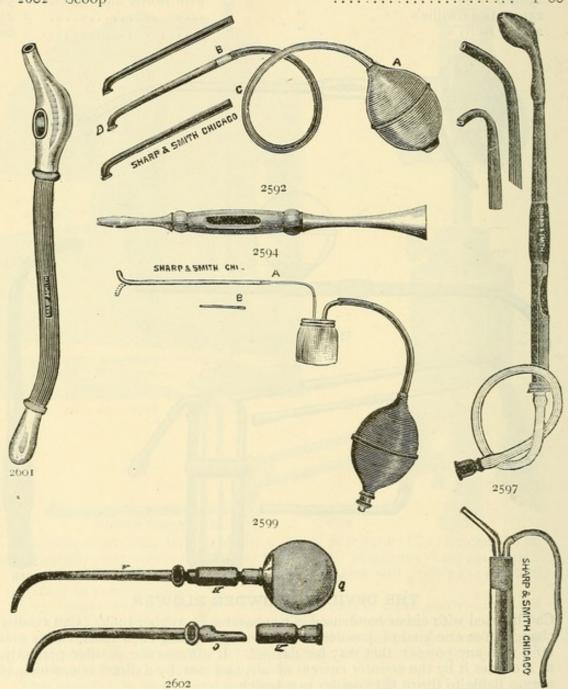


THE DEVILBISS POWDER BLOWER

Can be used with either condensed air apparatus or rubber bulb. Can readily change from one kind of powder to another by slipping cups apart, empty and refill with any powder that may be desired. It diffuses the powder perfectly, as it carries it by the counter current of air, and not by a direct one, which is always liable to throw the powder in a bunch. See Index for other Powder Blowers.

POWDER BLOWERS.

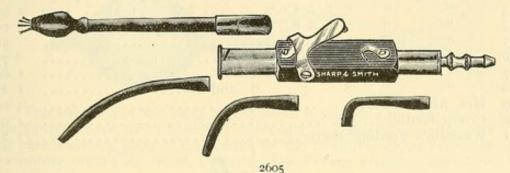
	TO WELL BEOWEND		
*2592 *2593	Ingals' Powder Blower	-	00
*2594	Bishop's Pocket " "		50
2595	Smith's " "		00
2596	Robinson's Reversible Powder Blower, two tips	2	25
*2597	" Powder Blower, with mouthpiece Oliver's "		75
2598 *2599	Oliver's " "		85
*2601			50
*2602	Scoop " " "	I	00
		1	
0		1	
II	A	M	



See index for other Powder Blowers.

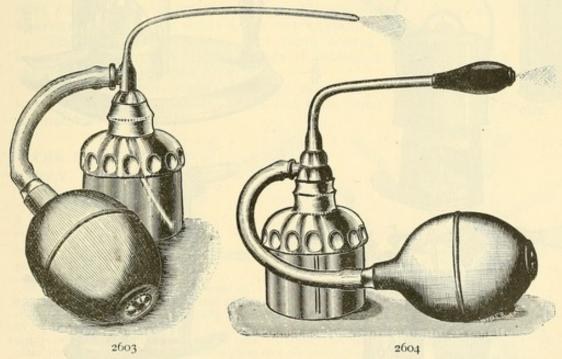
2593

*2603	Millard's N	lo. 9 I	aryngea	l Powder	Blow	er			 	\$1	50
*2604	"	"11 7	hroat	"	"				 	1	50
*2605	Morgan's I	owder	Blower						 	5	00
2605-A	Mattson's	No. 1	Powder	Blower	(see	page	426)	 	1	00
2605-B	44	" 2			("	66	426)	 	1	25
2606	Butts'		44	" .					 	I	50



MORGAN'S POWDER BLOWER.

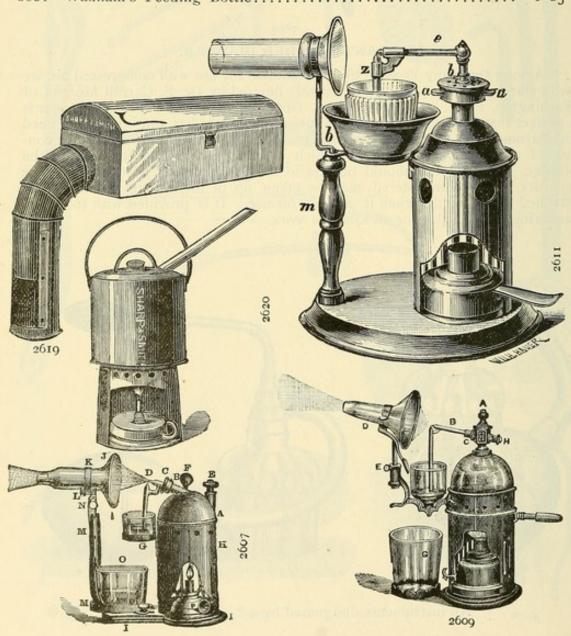
Among the many Powder Blowers suitable for use with compressed air, we particularly recommend two, one recently devised by Dr. E. Carroll Morgan, of Washington, D. C., and one by Dr. A. Devilbiss, of Toledo, O. The former is a perfect instrument, suited to the wants of the specialists and others who need an instrument for frequent and constant use. As shown by Fig. 2605, it consists of a hard rubber handle, to which is attached a scoop for holding the powder. The powders should be kept in small wide-mouth bottles so that the quantity to be administered may be taken up in the scoop and the latter attached to the handle when it is ready for use. It is provided with four tips, rendering it applicable for all kinds of work.



All instruments designated by a * are illustrated.

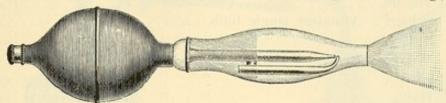
MOUTH AND THROAT INSTRUM	MENTS	ISTRUI	THROAT	AND	HTUON	M
--------------------------	-------	--------	--------	-----	-------	---

FIG.		
*2607	Codman & Shurtleff's Steam Atomizer	\$4 00
2608	" Nickel Plated Steam Atomizer	5 50
*2609	Sharp & Smith's Steam Atomizer	3 50
2610	Tiemann & Co.'s " "	4 00
*2611	German Nickel Plated" "	2 50
	Glass. Hard Rubber. Metal.	Silver.
2612	Atomizing Tubes for C. & S. Atomizer 20c \$1 35 \$1 50	2 00
2613	" " T. & Co.'s " 200 1 35 1 50	2 00
2614	" " S. & S. " 200 1 35 1 50	2 00
2615	" Bulbs, single	50
2616	" " double	75
2617	" pure gum, double	1 00
2618	" " " and net	I 25
*2619	Hot Air Bath	4 00
*2620	Croup Kettle	4 co
2621	Waxham's Feeding Bottle	1 25



*2622	The "Only	" Ointment	Atomizer			 	 	 	SI	00
		Vaseline		with	Bulb.	 	 	 	2	00
2623-A	"				out Bu					

THE "ONLY" OINTMENT ATOMIZER FOR WARMING AND SPRAY-ING PURE VASELINE AND OINTMENTS. (Patent Pending.)



The attention of the medical profession is respectfully called to the invention figured above, of an Atomizer, especially designed for warming and spraying pure Vaseline, plain or medicated, for the treatment of such diseases of the respiratory organs as Nasal Catarrh, Hay Fever, Asthma, Bronchitis, Consumption, etc.

The application of the healing and soothing properties of warm Vaseline Spray to the treatment of this class of diseases commends itself to the intelligence of every one at once, while ample experience with the method has fully confirmed its value.

This Atomizer renders possible the use of pure Vaseline Spray, applied warm, by which its remedial effects are much increased.

A great variety of medicines are combined with Vaseline, in extemporaneous prescriptions by physicians to use in this instrument, among the most successful of which may be mentioned: Cocaine, Menthol, Camphor, Carbolic Acid, Iodoform, Bismuth, Sub. Carb., Zinc Oxide, Hamamelis, and Ol. Eucalyptus.

There has been a question about the entrance of the Spray into the bronchial tubes, the affirmative of which is proven by the sensations of the patients, AND THE REAPPEARANCE OF THE SPRAY UPON THE EXPIRED BREATH.

The inspired air passing over parts coated with medicated Vaseline becomes impregnated with the remedy, if volatile, and carries it much farther along the respiratory track.

The application of plain Vaseline Spray, in cold weather, to the throat, nasal passages and bronchial tubes, has been found superior to any oro nasal respirator as a protective.

THE DEVILBISS SPRAY PRODUCER.

This instrument throws a spray in any direction desired. Will throw oils and vaseline by heating it from point to cup to blood heat.

cup.



FIG.	MOU	JTH AN	ID TH	ROAT	INSTR	UMENT	S.	
2624	Essex At	omizer, sin	gle bulb					Si oc
*2625					e bulb			
	No. 62.	"	44	for C	ocaine			1 00
2626A	No. 65.	"	- 44		gals' Nasal			
2626B	No. 66.		"	("		***)	
*2627	Gilbert's	Atomizer	r, single	bulb			***	
2628	Delano's	"	44					
*2629.	No. 20.	Tyrian	Atomize		e bulb			
*2630			"	"				
2631	Hall's		"	- "	"			
2632	Leffert's,	one tip	"	**				
2633	44	three tips	- 66	- (4				3 00
		2629	2			2627	2	
34	2625		DAWIDSON RU 262		G	Sharp & S 2630	H imith.	5

All Instruments designated by a * are illustrated.

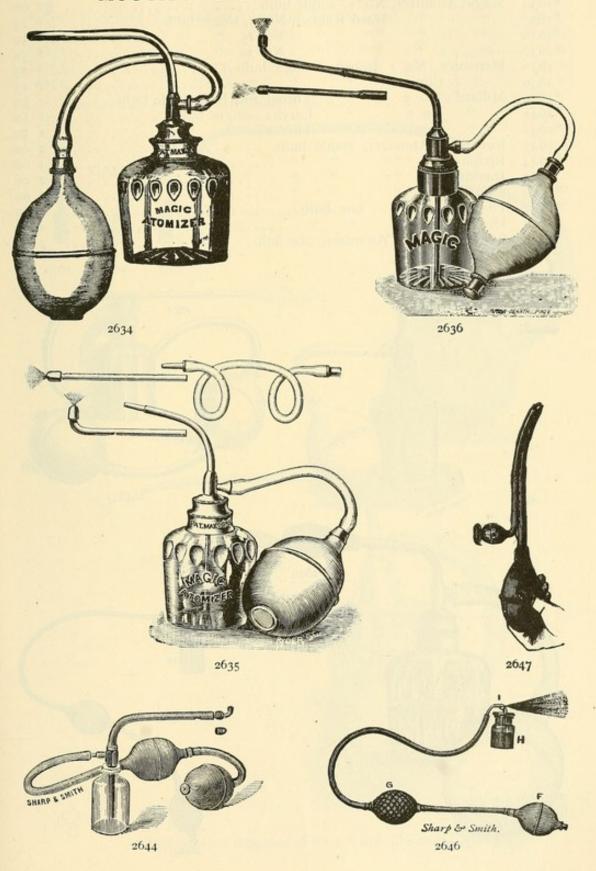
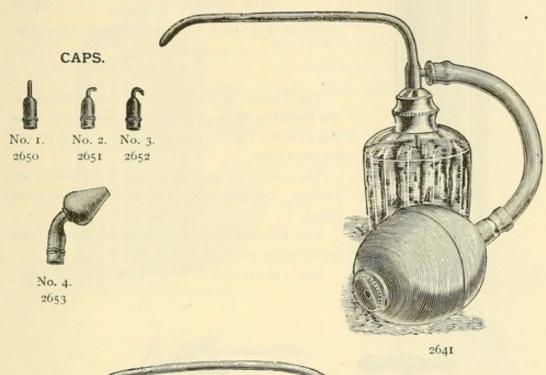
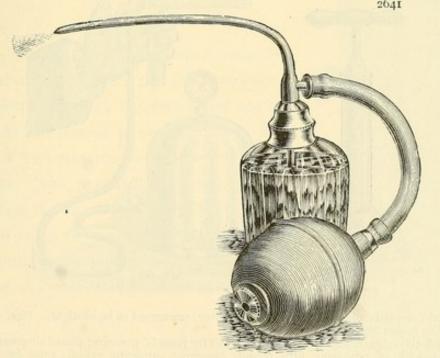


FIG.	MOUTH AND THROAT INSTRUMENTS.
*2634	Magic Atomizer, No. 1, single bulb \$1 00
*2635	" Hard Rubber, No. 5, single bulb 1 25
*2636	" " No. 25 " " 1 50
*2637	" " No. 30 " " 1 50
2638	Mattson's No. 1 Atomizer, single bulb
2639	" Clinical " " " 1 25
*2640	Millard's No. 5 "Throat and Ear, single bulb 1 50
*2641	" No. 6 " Larynx, single bulb 1 50
*2642	" No. 10 " Throat " " 1 50
2643 *2644	Reversible Atomizer, single bulb Richardson's " " 2 00
2645	Davidson's " " 2 00 Davidson's " " 2 00
*2646	Shurtleff's " "
*2647	Phœnix " one bulb
*2648	Holmes' " "
*2649	S. & S. Freezing Atomizer, one bulb 2 60
-	
6	FIG.I
N. P.	
2637	2648
	2048
	2640
	2040
-	
	0.1
	and and
10	
M	
14	
	TOTAL STATE OF THE
1	
-	
- The	
-	2649

*2650	Atomizer	Tips,	Throat,	straight,	Platina	lined,	No.	1 \$	40
*2651	- 44	44	66	curved	"	"	"	2	40
*2652	"	16	"	44	44	- 66	66	3	40
*2653		44	Nasal	66	66	.6		4	60
2654	"	"	Hall's	66	. "	"			60

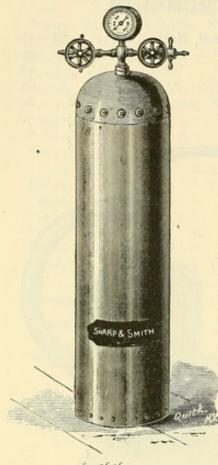
Tips for all Atomizers furnished at once.





Instruments designated by a * are illustrated.

tubing.



MOUTH AND THROAT IN-STRUMENTS.

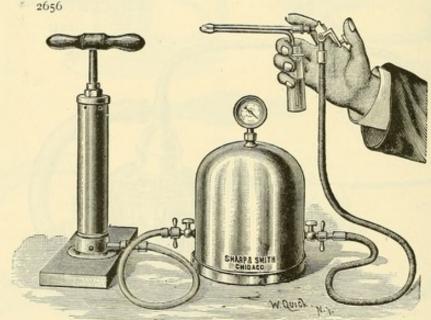
Prices of Fig, 2656 include appurtenances same as in Fig. 2655.

This Receiver is made of copper, and nickel-plated. It is tested to 300 pounds to the square inch, and provided with an A No. 1 gauge, registering from 1 to 100 (or 200) pounds' pressure.

The valves are made so they will not leak at any pressure. The gauge and valves are made of bronze, and plated.

This Receiver stands as high as an ordinary table, and the valves can easily be controlled.

Size, 7 inches diameter by 28 inches high.



2655
This outfit consists of a plated copper Receiver, warranted to be air-tight. Size, 9 inches

diameter by 12 inches high.

With first-class gauge, registering from one to fifty pounds' pressure; plated air-pump (latest improved), capable of producing fifty pounds' pressure; automatic cut-off; three Sass' spray tubes, glass; three test tubes; four feet silk-covered rubber tubing, and four feet lined rubber

All Air Receivers leaving our place are warranted.

COMPRESSED AIR APPARATUS.



No. 4. This Receiver is made of superior tinned steel, japanned in rich chocolate color, with first-class gauge registering from one to one hundred pounds' pressure, and high-pressure valves warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing.

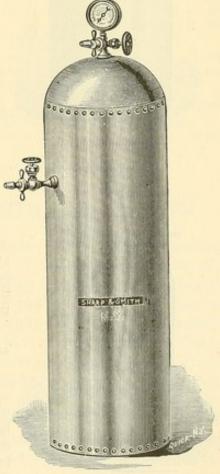
The gauge and valves are made entirely of bronze, highly finished and plated.

Size, 10 inches diameter by 18 inches high.

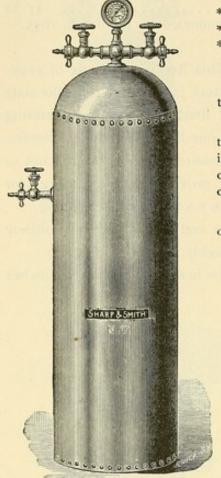
No. 5. This Receiver is made of superior tinned steel, japanned in rich chocolate color, with first-class gauge registering from one to one hundred pounds' pressure, and latest improved high-pressure valves, warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing.

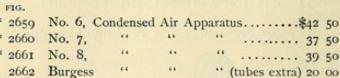
The gauge, valves, and couplings are made of bronze, highly finished and plated.

Size, 10 inches diameter by 32 inches high.



2658





Prices of figures 2659, 2660 and 2661, include appurtenances same as in figure 2655.

Fig. 2659-No. 6. This Receiver is made of same material and finish as the No. 5, and provided with the latest improved high-pressure valves, warranted not to leak; first class gauge registering from one to one hundred lbs. and couplings for attaching the necessary rubber tubing.

It is designed for use with globe inhaler as well as with ordinary spray tubes.

Size, 10 inch. diameter by 32 inch. high.



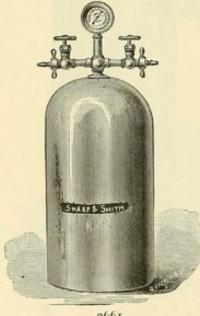
Fig. 2660-No. 7. This Receiver is made of copper, highly finished and plated. With first-class gauge, registering from one to fifty lbs. pressure; two accurately-fitted air cocks, and couplings for attaching the necessary rubber tubing.

The gauge, air-cocks, and couplings are made of bronze, and nickel plated.

Size, 9 inch. diameter by 16 inch. high.

Fig. 2661-No. 8. This Receiver is made of same material and finish as the No. 7, and provided with two latest improved high-pressure valves, warranted not to leak, and couplings for attaching the necessary rubber tubing. The gauge (first quality) registering from one to fifty lbs. pressure.

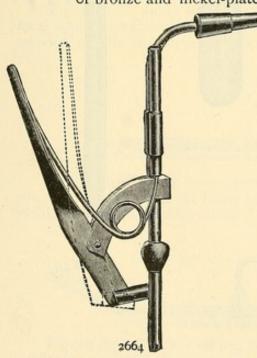
Size, 9 inch. by 16 inch. high



2659

2661

	MOUTH	AND	THROA	T IN	STRUMENTS.		
No. 3	Air Receiver	only) as	described i	n Fig	2656	227	00
No. 4	" "	" as	"		2657		
No. 5		"	"	"	2658		
No. 6	** **	"	"	"	2659		
No. 7		"	66	66	2660		
No. 8		"	44	66	2661		
FIG.	PARTS	OF CO	NDENSEL	AIR	APPARATUS.		00
						0 1	00
*2664	Devilhiss' Autor	matic Cr	off off		· · · · · · · · · · · · · · · · · · ·	.φ 3	00
*2664-A	Rumbold's	"	" " .		· · · · · · · · · · · · · · · · · · ·	•	
					eac		00
2666							50
2667		' Har	d rubber m	ounted	1 "		00
2665-A		' Gla	ss. not	44			80
2666-A		' Met	al "	**		1	25
2667-A		' Har	d rubber ne	ot mou	unted "		75
						1	-
	Devilbiss' "	44	Metal for	Vaselin	ne (see index)		3
					eac		00
*2668					nounted "		85
					and 500)		-
2668-A	(As in Fig. 26	63) Spra	ay Tube bot	ttle wit	th cork		25
2669	Thimbles for S	pray Tu	bes				30
2670	Silk Covered R	ubber T	ubing		per foc	t	50
2671	Lined	"	"				18
2672	Plated Air Pur	nps (T	Handle) l	atest	improved (same as i	n	
	Fig. 2655).					. 8	00
2673	Black Walnut S	stand to	hold six sp	ray tul	bes	. 2	00
2674					on nickel-plated pillars		
							00
2674-A					ting for Receiver, mad		
	of bronze and	l nickel	-plated			. 6	00



THE DEVILBISS

AUTOMATIC CUT-OFF.

The figure shows it in its working position. The dotted lines show the pressure-foot carried backward, permitting free passage of air. The part to connect with spray tube is constructed so it will fit to any fastening in use direct, or with short piece of rubber tube. There is with each Cut-off a coupling so that a piece of uncovered rubber tubing may be connected by one end to the tube leading from air receiver, and the other end slipped over the heel-piece of Cut-off.

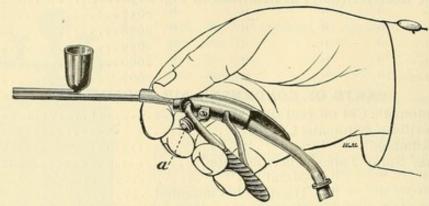


Figure 2664-a. Rumbold's Spray Controller. a, set-screw, to control the pressure on the rubber tube connected with the compressed air reservoir. The illustration shows the manner of holding the instrument. The Spray Controller is thus made the handle of the Spray Producer.

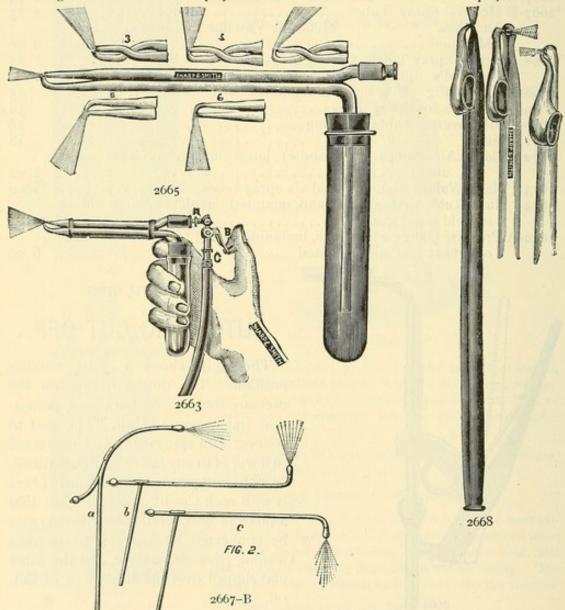


FIG.								
*2675 to 2682	Rumbold's	Glass V	aseline	Spray	Tubes	each	8	40
*2675 to 2682	"							
*2675 to 2682						Mounted for		
	connect	on with	Air Co:	ndense	r	each		70
*2675 to 2682						es, mounted for		
1000	connectio	n with	Air Con	denser		each	I	75

The Rumbold Tubes are considered by those who have used them to be superior to any other in use. They are made in glass and metal—the glass being used the most. They are preferable because the desired amount of medicine can be measured and put in the cup.

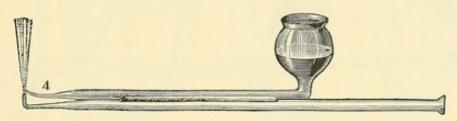


Figure 2675, Spray Producer No. 4. This instrument is used to make local applications to the pharyngo-nasal cavity.

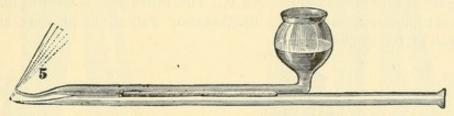


Figure 2676, Spray Producer No. 5. This instrument is used to make local applications to the posterior nasal cavities, treating the surface under the inferior, middle and superior turbinated processes.

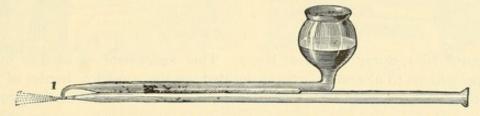


Figure 2677, Spray Producer No. 1. This is used to treat the fauces, tonsils, and by inhalation, the lower portion of the pharynx, and slightly the larynx, vocal cords and bronchial tubes.

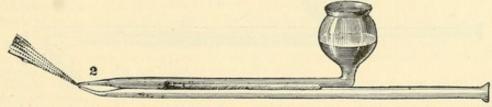


Figure 2678, Spray Producer No. 2. This instrument is used to make local applications to the anterior portions of the nasal passages.

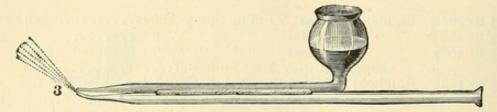


Figure 2679, Spray Producer No. 3. This instrument is used to cleanse the posterior wall of the pharyngo-nasal cavity, when it is coated with a heavy, thick secretion that cannot be removed by the No. 4 spray producer.

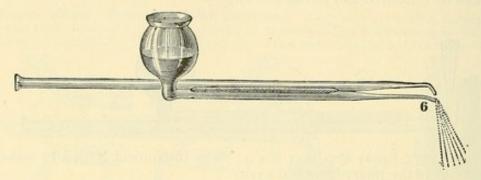


Figure 2680, Spray Producer No. 6. This instrument is used to make applications to ulcerated surfaces on the posterior wall of the pharynx, and posterior wall of the epiglottis.

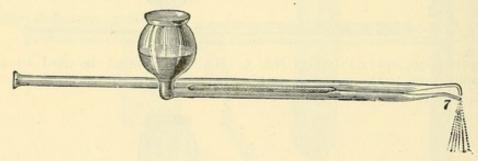


Figure 2681, Spray Producer No. 7. This instrument is used to make local applications to ulcerated surfaces located on the superior border of the epiglottis, the ary-epiglottic folds, arytenoid processes, and vocal cords.

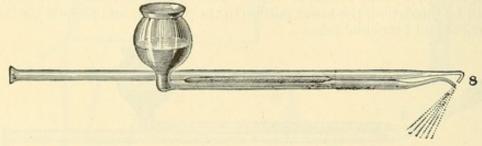


Figure 2682, Spray Producer, No. 8. This instrument is used to make applications to ulcerated surfaces that cannot be reached by Nos. 6 and 7.

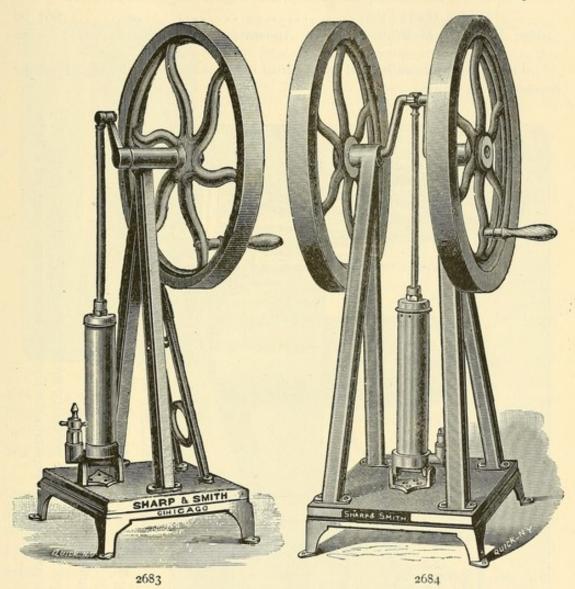


Fig. 2683.—This cut represents the well-known Novelty Air Pump, designed for exhausting as well as compressing air for atomizing purposes, and for compressing oxygen.

The construction of the pump is such that a pressure of one hundred pounds to the square inch can be obtained with comparatively little effort. The fly-wheel, frame part, and base are nicely japanned in black and ornamented in bronze, and all bright parts highly finished and plated - making this pump especially adapted for the office.

plated - making this pump especially adapted for the office.

Height of pump from floor to top of wheel, 40 inch.; size of base, 14 by 14 inch.; diameter of wheel, 20 inch.; diameter of chamber, 2 by 6½ inch. stroke; weight of pump, 90 pounds.

Fig. 2684.—This cut represents the two-wheel Novelty Pump, of same material and finish as the Fig. 2683 Novelty, but considerably heavier in construction, and designed for compressing air or gas into Receivers of extra large sizes.

compressing air or gas into Receivers of extra large sizes.

Height of pump from floor to top of wheel, 43½ inch.; size of base, 14 by 14 inch.; diameter of wheels, 20½ inch.; diameter of chamber, 2 inch. by 8 inch. stroke; weight of entire pump, 150 pounds.

Instruments designated by a * are illustrated.

FIG.	
*2685	Dr. N. L. McBride's Inhaling Apparatus complete as shown in
-	cut, with Novelty Air Pump, and Figure 2658 No. 5 Air Re-
	ceiver 10x32 inch\$67 00
2686	Dr. N. L. McBride's Inhaling Apparatus only 8 00

This apparatus can be had by itself or in connection with any of our air condensers or pumps.

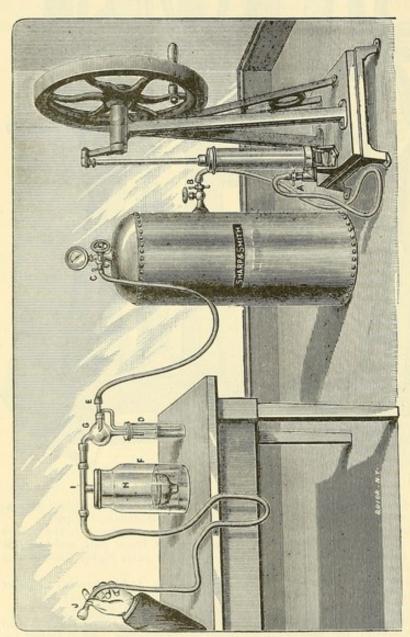


Fig. 2685.-INHALING APPARATUS.

For administering Vaporized Medicine in the treatment of Throat and Lung difficul-Each Inhaler is provided with the necessary rubber tubing, (31/2 feet) and one hard Glass tube D to contain the liquid to be vaporized; glass jar F to be New York. Shown in connection with the cele-5 Air Receiver, 10 by 32 inches. McBride, brated Novelty Air Pump and ties, as designed by Dr. N.

half filled with clear water.

rubber mouthpiece.

All of our Air Condensing apparatus, etc., are thoroughly reliable, and are guaranteed by us as represented. We pack them carefully, and would suggest in ordering, to have them sent by freight.

New Apparatuses for Atomization with Compressed Air.

Designed to combine efficiently all the advantages of an office and of a Portable Apparatus for Physicians' use.

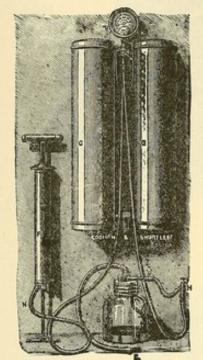


Fig. 2687. No. 266. nickel plated. For attaching the Air Chamber of the Nos. 266 or 268 to the office wall we make Plated Metal Brackets designed to remain screwed to the wall. From these the apparatus may be readily detached and placed in case for portable use, and on return as quickly replaced upon them, as shown in cut.

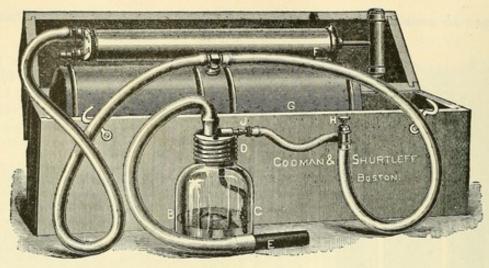
The Portable Case is 23 inches long, 10½ inches wide, 7 inches high. It has a separate compartment for safe carriage of the Oliver Jar, also a spare compartment for a second Oliver Jar or for other use. It is neatly made, with hinged top and brass handle.

Each apparatus tested to more than 100 lbs. per square inch, and warranted perfect.

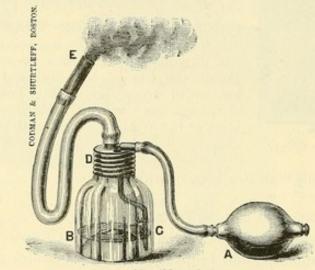
PRICES, PACKED FOR TRANSPORTATION.

The apparatus as described, including the Air Chamber, the 2½ inch Pressure Gauge, the Pump, the Cut-off, the Oliver Jar, a sufficient amount of strong, serviceable Tubing, with screw couplings and wrench, and either the Portable Case or the Wall Brackets, at the option of purchaser; all metal parts handsomely polished and

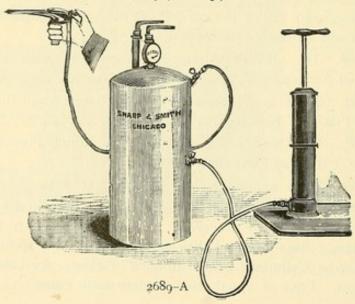
*2687 No. 266, with Wall Brackets, or with Portable Case. \$20 25



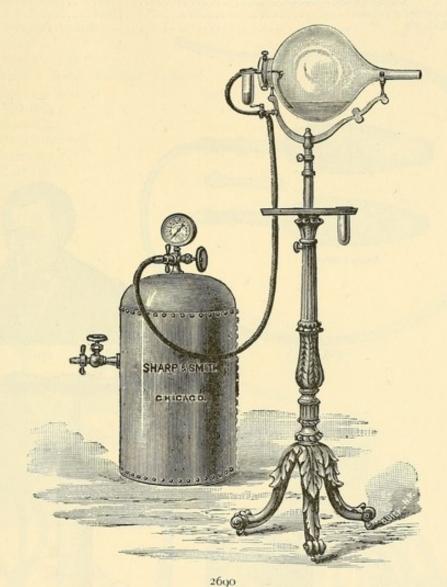
2688 (No. 166.)



2689 (No. 165.)



*2690	Globe	Inhaler	on Star	nd (withou	it rece	eiver s	hown	in	cut)	 	.\$30	00
2691	***	"	only							 	3	00
2692	"	"		trimming								
2693	"	- 44				brack						



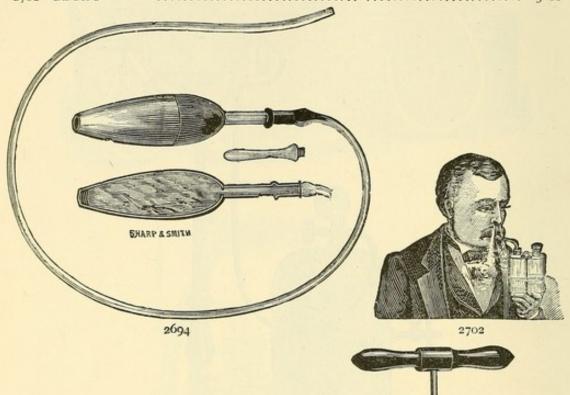
This instrument consists of a glass vessel, 9 inches diameter by 12 inches long, one end being provided with a metal cap with a spray tube attached, reaching about two inches into the globe. The liquid to be vaporized can be taken from the globe, or from a test tube attached to the frame.

The instrument can be adjusted to the height of the patient.

The iron table stand is nicely ornamented in black and gilt, and the other metal parts are highly finished and plated.

Price of Inhaler, without Receiver, \$30.00. Two mouthpieces and six feet of silk covered tubing are furnished with each instrument.

*2694	Buttles'	Inhaler, complete\$ 1	00
2695	Cutter's		00
*2696	Evans'	" " 20	00
2697 2698	6.6	Spray Chamber and Inhaling Tube 8	50
2698	4.6	Receiver alone 2	50
2699	**	Pump " 8	00
2700	4.4	Connections I	00
		r's Inhaler	
*2702	Barber's	s " 3	00



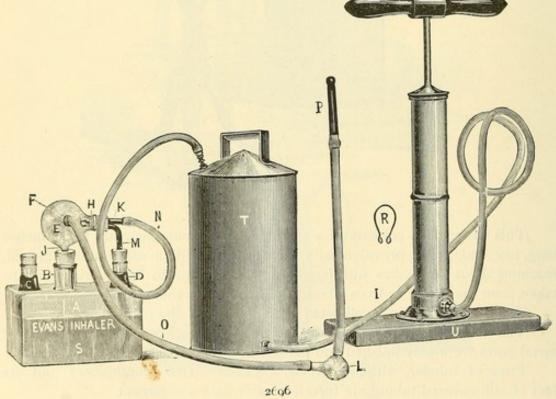
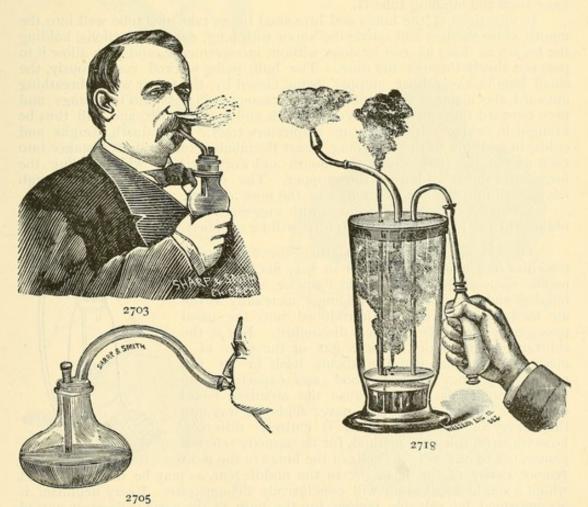
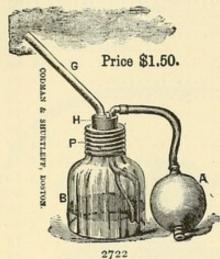


FIG		
*2703	Brady's Inhaler \$	75
2704		50
*2705	Hunter's "	85
2706	Schofield's " 2	
2707	Kirkwood's Large Inhaler 3	-
2707-1		
2708	C	00
2700	17:1	75
2710	OU I M	75
2711	F1. 11 F7 1 F. 11 7 1 1	75
2712	Roosa's Iodine " two tips 1	-
2713	C 11: 1	00
2714	Hazen's " 2	
2715	TT . 1.	- 50
2716		60
2717		60
*2718		
The State of the S	0 0 11	00
2719		75
2720	Delano's "	85



All instruments designated by a * are illustrated.

FIG.		To Patients.	To Physicians.		
*2721	American	Nebulizer\$3 00	\$2 00		
*2722	Oliver's	" 2 00	1 50		



In this Vaporizing or Nebulizing Apparatus, based upon the invention of Dr. Henry K. Oliver, the medicine, when suitably constituted by the addition of glycerine or other vehicle, is first atomized and then further broken into a fine cloud by striking against a hard surface. Issuing from the inhaling tube it floats upon the atmosphere for a long time without being absorbed into it. Possessing this quality, it is admirably adapted to be received by the air-cells of the lungs, into which it surely penetrates, as abundantly proved by careful observers.

To use it, take the rubber bulb in the hand, compress it strongly, let it expand quickly and continue this as rapidly as convenient, and air charged with fine vapor of the medicament will

issue from the inhaling tube G.

In affections of the lungs and bronchial tubes, take this tube well into the mouth, close the lips and inhale the vapor with long, deep inspirations, holding the breath as long as can be done without inconvenience, and then allow it to pass out slowly through the nose. The bulb being worked continuously, the small hole in the rubber stopper being closed by the finger while breathing outward, the inspired vapor of the medicament will pass into the lungs and then outward through the pharyngeal vault and both nostrils, and will thus be brought in contact with the entire respiratory tract. For catarrh, coughs and colds, in addition to the foregoing, insert the inhaling tube a short distance into each nostril by turns, close the mouth and work the bulb while holding the finger over the small hole in the stopper. The vapor will now pass through one nostril into the deeper cavities of the nose and out at the other nostril.

A number of valuable recipes with suggestions for their appropriate use, obtained from high medical authority, will be supplied with each.

This ingenious little apparatus converts liquid remedies into a nebula or vapor so very fine that it remains suspended in the air like smoke, and can be inhaled and retained within the lungs as readily as the air we breathe, or can be introduced into the nasal passages without the slightest discomfort. Nor is the substance thus inhaled a mere gas or the odor of a medicine, but the actual medicine itself in its full remedial potency. Much good was expected from atomization, but it failed because the atomized liquid condenses in the throat, and never finds its way into the lower air passages. This is entirely different, however, with this new method, for the remedy selected penetrates to the very air cells of the lungs to the most

remote cavity of the head, or to the middle ear, as may be desired—a fact which a single application will conclusively demonstrate. Every nebulizer is accompanied by valuable recipes for the cure of the various diseases named above, gathered from the practice of well known specialists of established reputation. Your druggist can prepare the remedies.

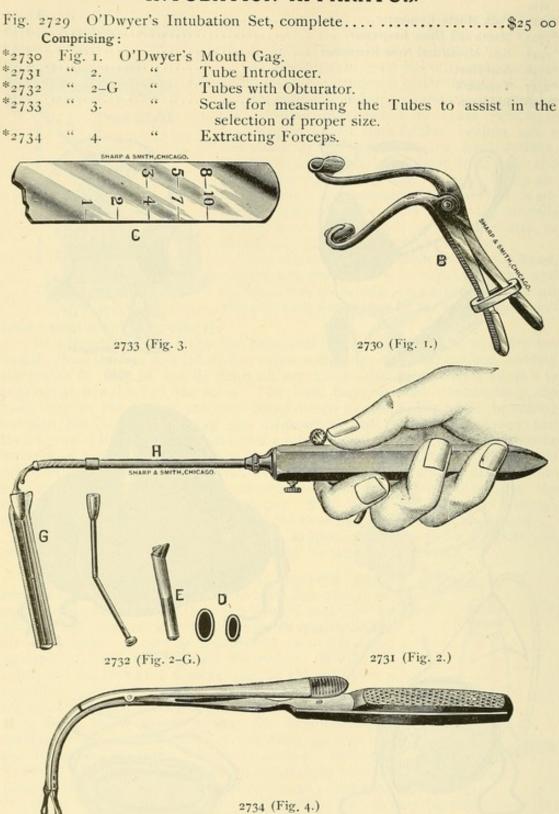
MOUTH AND THROAT INSTRUMENTS. FIG. *2723 Plain Mouth Respirator.... Nitz' Mouth and Nose Respirator 2725 *2726 Anti-Dust 2 60 *2727 Tyndale's *2728 Robinson's CODMAN & SHURTLEFF, BOSTON. 2726 2724 2727.

Instruments designated by a * are illustrated.

2728

2723

INTUBATION APPARATUS.



The numbers on the scale (Fig. 3) indicate the years for which the corresponding tubes are suitable. For instance, the smallest tubes when applied to the scale will reach to the first line, marked 1, and is intended to be used up to

the age of twelve or thirteen months; the size marked 2 is suitable for the next year, 3 and 4 for these years, and so on. When the proper tube is selected for the case to be operated on, a fine thread is passed through the small hole near its anterior angle, and left long enough to hang out of the mouth; its object being to remove the tube should it be found to have passed into the œsophagus instead of the larynx.

The obturator is then screwed tightly to the introductor, to prevent the possibility of its rotating while being inserted and passed into the tube.

The following is the method of introducing the tube, which is done without the use of an anæsthetic. The child is held upright in the arms of a nurse, and the gag (Fig. 1) inserted in the left angle of the mouth, well back between the teeth, and opened widely; an assistant holds the head, thrown somewhat backward, while the operator inserts the index finger of the left hand to elevate the epiglottis and direct the tube into the larynx.

The handle of the introductor (Fig. 2) is held close to the patient's chest in the beginning of the operation, and rapidly elevated as the canula approaches the glottis. The tube is then pushed downward without using much force. It is then detached. The joint in the shank of obturator is for the purpose of facilitating this part of the operation. As soon as the obturator is removed, and it is ascertained that the tube is in the larynx, the thread is withdrawn, but at the same time the finger is kept in contact with the tube to prevent its being also withdrawn.

It is important that the attempt at introduction be made quickly, as respiration is practically suspended from the time that the finger enters the larynx until the obturator is removed. It is therefore, under the circumstances, much safer to make several abortive attempts than one prolonged effort, even if successful.

For the purpose of removal the patient is held in a similar position, except that the head is not inclined backward, or very slightly so, and the extractor passed into the tube guided by the index finger of the left hand, which also fixes the epiglottis, and is brought in contact with the head of the canula. Firm pressure with the thumb is then made on the lever above the handle while the tube is being withdrawn. If secondary dyspnæa supervenes at any time, the tube should be removed, and a larger one substituted. To avoid accidents it is very essential to have some preliminary practice on the cadaver, particularly in extracting, which is the more difficult operation, owing to the aperture of the tube being so much smaller than that of the larynx. These tubes will also prove valuable as dilators in chronic stenosis of the larynx or trachea.

Parties wishing our instruments, and finding it more convenient to obtain them through dealers, are requested to order "S. & S. manufacture," as otherwise inferior goods are frequently substituted. All instruments of our manufacture have our name on them, which is a guarantee of the quality.

SHARP & SMITH,

Manufacturers of Surgical Instruments,

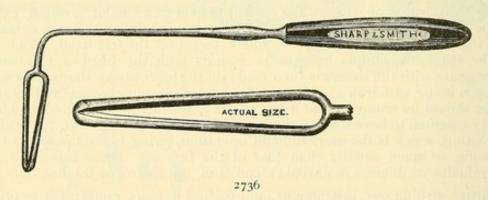
73 Randolph Street, Chicago.

Extract from an article entitled

"INTUBATION IN CHRONIC STENOSIS OF THE LARYNX."

By Joseph O'Dwyer, M. D.

* I have also devised a snare (Fig. 2736) for the removal of laryngeal growths, particularly when situated in the subglottic region, where it is difficult to reach them with forceps in adults, and impossible in children. For growths attached to the lateral aspects of the larynx the snare is passed far enough down to give room for the neoplasm to slip between the blades, when it is

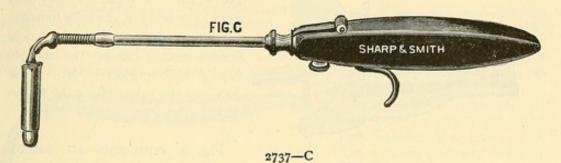


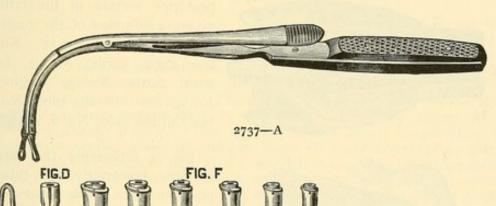
pressed firmly against the side of the larynx, and withdrawn. If the seat of attachment is unknown, both sides, and then the anterior and posterior portions of the glottis, can be curetted in succession.

This instrument will not seize any of the normal tissues when applied laterally, but in removing it, when used antero-posteriorly, it is necessary to protect the epiglottis and uvula with the finger. Two sizes of this snare are necessary, that shown in the cut being suitable for children. In young subjects it is guided into the larynx in the same manner as in practicing intubation. In adults it can be inserted with greater facility by the aid of the mirror.

All Instruments designated by a * are illustrated.

INTUBATION.





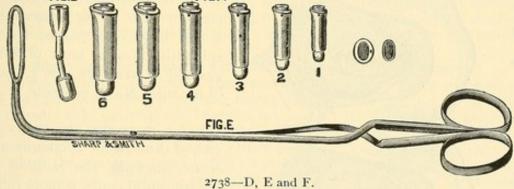
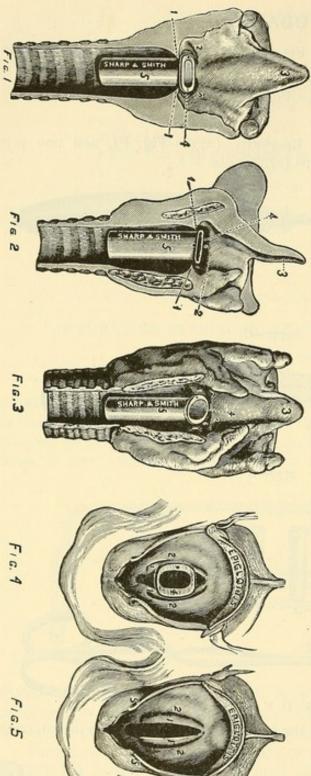


Fig. D in above cut represents the false Epiglottis used in the introduction of each tube.



Cut Showing the O'Dwyer Tube in Position.

2737-B



INTUBATION.

Fig. 1 represents the anterior portion of a transverse section of the larynx, showing the head resting in the ventricle of the larnyx; No. 1, the true vocal cords as they grasp the body of the tube beneath the flange; No. 2, the false vocal cords resting above the flange; No. 3 the epiglottis; No. 4 the head of the tube; No. 5,the body; No. 6 ventricle.

Fig. 2 represents an anteroposterior section of the larnyx, giving a side view of the position of the tube in the larnyx. No. 1, true vocal cords; No. 2, false vocal cords; No. 3, epiglottis; No. 4, head of the tube; No. 5, body of the tube; No. 6, ventricle.

Fig. 3 represents the larnyx slit open posteriorly, with tube in position. No. 1, true vocal cords; No. 2, false vocal cords; No. 3, epiglottis; No. 4, head of tube situated in ventricle; No. 5, body of the tube; No. 6, ventricle.

Fig. 5 represents the larnyx as viewed through the epiglottid aperture, showing the position of the true vocal cords, without tube.

Fig. 4, same view with tube in position.

For a Complete Description of Dr. Tascher's Method of Intubation, see "Supplement."

*2739	Dr. J. Mount Bleyer's Tongue Tractor	\$4 50
*2740	" Mouth Gag	5 00
*2741	" Cupped and False Epiglottis Tube	3 00

TONGUE AND LARYNX TRACTOR

For the Performance of Forced Laryngoscopy in Children. Mouth-Gag and Cupped-Out Intubation-Tube, with False Metal Epiglottis Attachment.

BY J. MOUNT BLEYER, M, D., New York.

Among the methods of examination which are at our disposal for the recognition of laryngeal disease in children, laryngoscopy takes the first place, and the results which are thus attained are of such great importance in diagnosis that I was led to devise some means which would assist in such a procedure. It is extremely difficult, by a mere verbal description, to explain clearly

Tongue Tractor.—2739.

I have successfully used in my last

any process requiring the use of an instrument and skill. In such cases a single practical demonstration is of more value than a dozen pages of written directions.

This tongue and larynx tractor, which is represented in the accompanying illustration,

I have successfully used in my last three hundred cases, which were operated on in the described manner (intubation of the larynx for stenosis). These cases were previously examined by forced laryngoscopy in order to ascertain the extent of the disease present. This instrument was found to facilitate the

examination necessary in the majority of cases of acute laryngeal disease in children under four years of age. Such procedure is not to be underrated in importance, nor neglected on account of any personal disinclination to undergo the necessary trouble involved in making it. If such an inspection will disclose facts of diagnostic importance, surely it will not be neglected by any earnest physician.

Suggestions for Operating with the Tongue and Larynx Tractor.

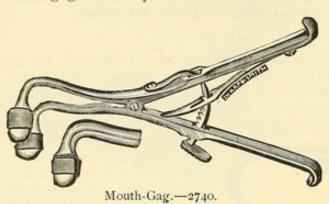
The patient is to be placed upon the lap of a nurse, who is directed to hold the child in an upright posture, facing the operator, the feet being most conveniently held between the knees of the nurse. With a towel envelop the body and arms, which are thus to be pinned securely. The gag is now inserted. At this stage of the operation a five per cent. solution of cocaine, with which the pharyngeal and laryngeal surfaces are to be thoroughly sprayed, or without any use of cocaine, as I often do when the examination is of short duration, the operator passes the tractor down, and secures the base of the tongue, guided upon the forefinger of his left hand. Then drawing upon the base of the tongue, which favors partial elevation of the larynx, the tractor is to be passed upward, outward and downward.

Enforced laryngoscopic examination in children is performed in the above described manner, and there is no doubt that many advantages are thereby gained. Often a very common difficulty is met with in the position of the epiglottis, as more or less depressed, overhanging the larynx, or compressed and rolled together at its sides. By forcing and steadying the epiglottis against the base of the tongue this difficulty is nearly obviated, and a thorough view of the larynx and neighboring parts may be viewed and treated.

TONGUE AND LARYNX TRACTOR.-Continued.

Other important advantages of this instrument are that where there might occur some difficulty in extracting a tube after intubation, extraction is performed after elevation of the larynx with any ordinary forceps.

The mouth gag, which is herein represented, will be found to have superior qualities in its construction in many points. I have found that all other gags are very troublesome to introduce into the mouth of the child, on



account of the shoulders of the alveolar processes of the gagger, which are very large, and especially when one has to deal with a stubborn patient, who will not begin to open his mouth. This led me to have a wedge attachment made to the side of the alveolar process, and very low shoulders, in order to help to open the mouth and thereby slip immediately the gag in between the angles of the jaw. The al-

the angles of the jaw. The alveolars of the gag are padded with soft rubber, and which can be changed in every case; thus no damage is done to the teeth, and where no teeth exist the gums are protected thereby. The shoulders are very low, so that while the gag is in position it will not press upon the hard palate and crush in the same, as I often had experienced. Slipping of the gag is avoided by the anatomical construction of the angles of the gag; also the soft rubber padding keeping it in place by the indentation of the teeth.

The separating of the jaws by the gag can be accomplished to any degree

and with ease. Also it lies flat upon the cheek, and is self-retaining.

To Dr. Charles E. Denhard of New York, I must credit the principle of this gag.

Dr. J. Mount Bleyer's Cupped and False Epiglottis Tube.

The tube is an improvement upon the soft rubber false epiglottis of Dr. T. E. Waxham of Chicago, to whom all honors should be given for this ingenious idea. When one has operated many cases he begins to see the necessary wants and deficiencies which exist. These tubes have many advantages over the



Cup and Tube .- 2741.

first tubes of Dr. O'Dwyer. They are cupped out at the head, and admit of the extractor engaging itself into the tube, and thereby the extraction made easy. A metal-hinged artificial epiglottis, which is intended to assist the patient in swallowing, to prevent the

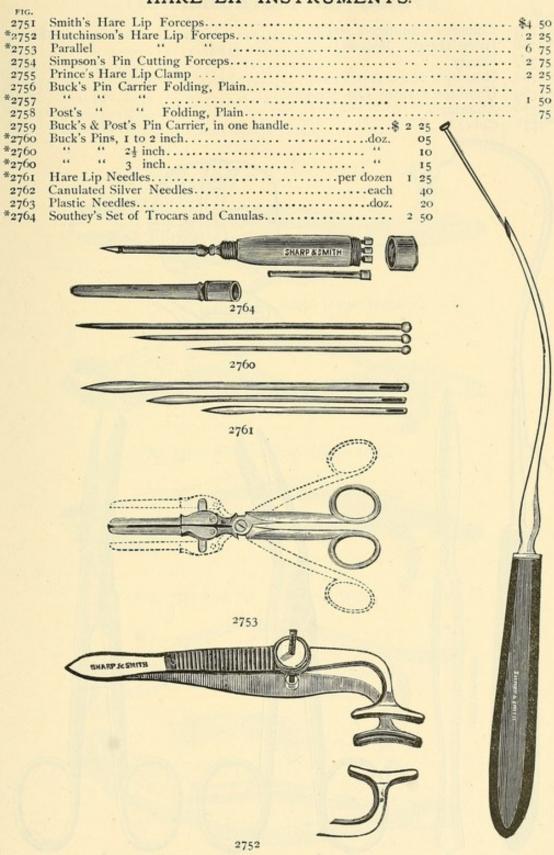
falling of foods and fluids through the canula into the bronchi, and to guard against the dangers of broncho-pneumonia.

Since the use of these tubes I have had better results.

FIG.												
2742	Mussey's N	Iouth	Gag	g				 	 	 	 \$5	25
2743	Dedham's	44	66					 	 	 	 5	00
2744	Whitehead's	46	"					 	 	 	 9	00
2745	Smith's	"	66					 	 	 	 9	00
2746	Wier's	"	"					 	 	 	 5	25
2747	Lentz's	44	"					 	 	 	 4	50
2748	O'Dwyer's	66	66	(see]	page	510)	 	 	 	 3	75
2749	Waxham's	"	"					 	 	 	 3	75
2750	Warren's	66	"					 	 	 	 3	00
2750-	A Hartman's		"	and]	Retra	actor		 	 	 	 10	00

2757

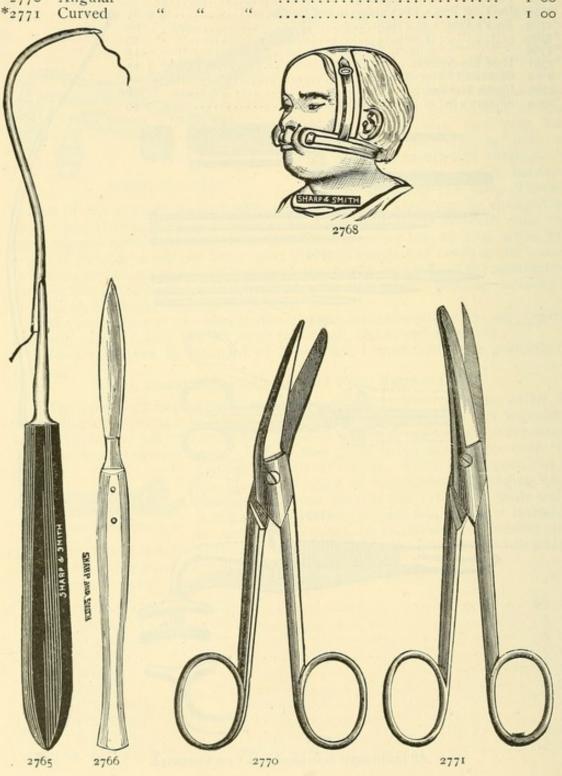
HARE LIP INSTRUMENTS.



All instruments designated by a * are illustrated.

HARE LIP INSTRUMENTS.

P.15.re		
*2765	Emmet's Canulated Needle \$1	85
*2766	Ivory Handle Scalpel	00
2767	Ebony " "	75
*2768	Hornby's Hare Lip Truss 4	50
2769	Hamilton's Hare Lip Scissors	50
*2770	Angular " " " 1	00
*2771	Curved " " 1	00



TOOTH-EXTRACTING FORCEPS.

ALL OUR FORCEPS ARE OF THE BEST QUALITY, NICKEL PLATED AND FULLY WARRANTED.

FIG.		
*2775	No. 19—Right Upper Molar	
*2776	No. 19—Left " "	\$1 50
*2777	No. 24—Universal "	each.
*2778	No. 28—Right and Left Lower Molar	

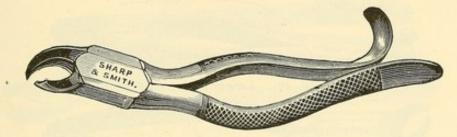


Fig. 2775 (No. 19). Right Upper Molar.

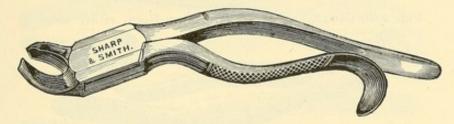


Fig. 2776 (No. 19). Left Upper Molar.

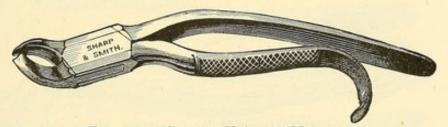


Fig. 2777 (No. 24). Universal Molar.

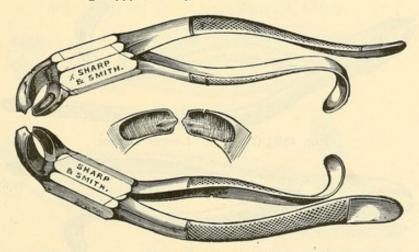


Fig. 2778 (No. 28). Right and Left Lower Molars.

TOOTH FORCEPS.

FIG. *2770	No. 47	Hutchi	inson's	Tooth I	orcens.		 	 	 	. 5	S 1	50
*2780	No. 23	Lower	Molar	Cow-Hor	n, either	side	 	 	 		I	50
*2781	No. 16	"	"	66	66	"	 	 	 		1	50
*2782	No. 45	Upper	44	"	"	**	 	 	 		I	50
*2783	No. 14	Lower	Incisor	r			 	 	 		1	50
*2784	No. 13	Upper	"				 	 	 		1	50

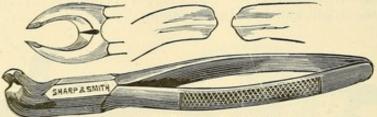


Fig. 2779 (No. 47). Lower Molar (Hutchinson's).



Fig. 2780 (No. 23). Lower Molar Cow-Horn, either side.

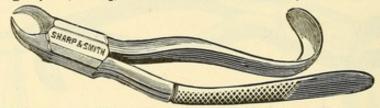


Fig. 2781 (No. 16). Lower Molar Cow-Horn, either side.

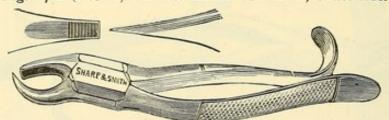


Fig. 2782 (No. 45). Upper Molar Cow-Horn, either side.

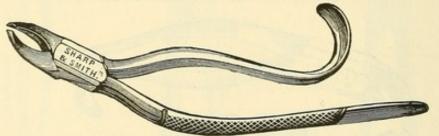


Fig. 2783 (No. 14). Lower Incisor.

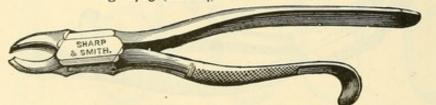


Fig. 2784 (No. 13). Upper Incisor.

TOOTH FORCEPS.

FIG.				
*2785	No. 8	Universal Incisor and Bicuspid	\$ I	50
		Lower " "		
		Upper and Lower Bicuspid, half curve	1	50
*2788	No. 25	Lower Biscuspid, Safety	1	50
*2789	No. 27	Lower Wisdom	1	50
*2790	No. 10	Upper Dentes Sapientiæ, with or without hook, either		
		side	I	50

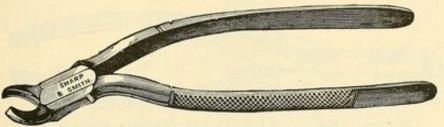


Fig. 2785 (No. 8). Universal Incisor and Bicuspid.

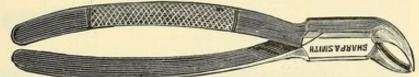


Fig. 2786 (No. 46). Lower Incisor and Bicuspid, either side.

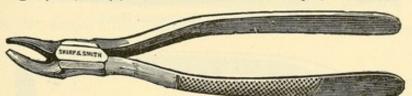


Fig. 2787 (No. 4). Upper and Lower Bicuspid, half-curve.



Fig. 2788 (No. 25). Lower Bicuspid, Safety.



Fig. 2789 (No. 27). Lower Wisdom.

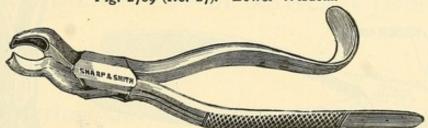


Fig. 2790 (No. 10). Upper Dentes Sapientiæ, with or without Hook, either side.

TOOTH FORCEPS.

*2791 No. 22. *2792 No. 7. *2793 No. 3. *2794 No. 2. *2705 No. 1.	Lower Dentes Sapientiæ either side	\$1 50 each.
*2795 No. 1. *2796 No. 35.	Upper Front Root, Straight	

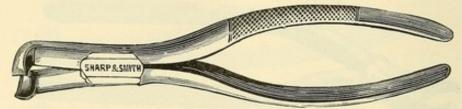


Fig. 2791 (No. 22). Lower Dentes Sapientiæ, either side.

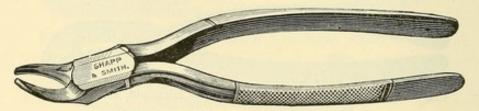


Fig. 2792 (No. 7). Universal Root.

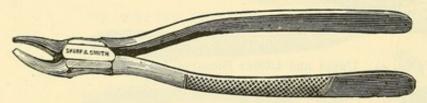


Fig. 2794 (No. 2). Upper and Lower Root, Half-Curved.



Fig. 2795 (No. 1). Upper Front Root, Straight.

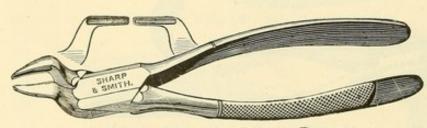
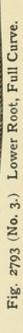


Fig. 2796 (No. 35). Bayonet Root.



TOOTH FORCEPS AND SETS.

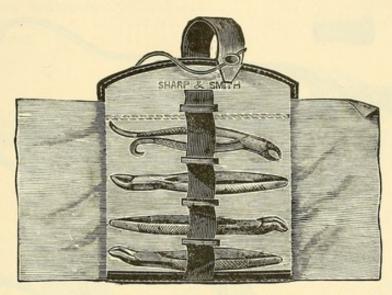


Fig. 2797. Dr. Brophy's (Rush College) Set of Tooth Forceps for Physicians' use.

CONTAINING

1 Pair No. 28R, Tooth Forceps.

1 " " 32, " "

I " " 39, " "

I " " 10, Special Tooth Forceps.

In Chamois Lined Pouch.

PLEASE DO NOT CUT OR MUTILATE THIS BOOK.

In ordering state number of figure and page, and we can promptly fill your order.

	INSTRUMENTS FOR PHYSICAL DIAGNOSIS.
*2800	Camman's Ordinary Stethoscope\$2 00
*2801	" Stethoscope with closed spring adjustment 3 00
*2802	Sharp & Smith's Improved spring adjustment Stethoscope 3 75
*2803	Knight's Improved (Camman's) Stethoscope 4 50
	2801
	2803 2802 2800

Instruments designated by a * are illustrated.

FIG.	INSTRUMENTS FOR PHYSICAL DIA	GNOSIS.	
*2804 *2805 *2806 *2807 2808 2809 2810	Sharp & Smith's Perfected Camman's Stethoscope, """" Allison's Differential Stethoscope		1 05
	D 2805	E F	9
	2807	D F F F F F F F F F F F F F F F F F F F	d
6			
1	SHARP & SMITH. CHICACO	, 2801	4

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.
*2813 Arnold's Stethoscope. \$ 1 00 2814 Boeker's " 1 00 2815 Martin's Combined Stethoscope. 3 75 *2816 Cedar Stethoscope. 40 2816-A " with rubber ring. 85 *2817 Ebony " 1 00 2817-A " and Ivory Stethoscope. 1 50 2818 " Stethoscope, with rubber ring. 1 25 *2819 " with Pleximeter and Hammer. 2 50 *2820 Hawksley's New Stethoscope. 1 00
*2821 University Stethoscope, Improved
2819
2813
2817 2820 2816
2821

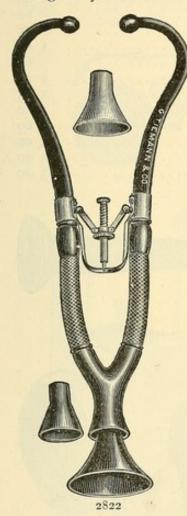
Instruments designated by a * are illustrated.

2821-A

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

Fig. *2822 Dennison's Hard Rubber Stethoscope.....\$ 9 00

The instrument here presented is the result of considerable experimenting and differs from those heretofore used in many particulars which are of great importance in a good instrument, though in outward appearance it is very much like other stethoscopes. The points of dissimilarity are those which by having many different kinds made, are the essentials in a perfect instrument.



- 1. As to the quality of sound .- The material of which an instrument is made determines the character of the sound obtained. A stethoscope made wholly of metal or with metal tubes only, gives a metallic quality to all the sounds transmitted, whose pitch seems to be elevated and thereby unnatural. This perversion of natural sounds is not obtained in any such degree by gutta-percha, wood or celluloid. In this instrument is chosen hard rubber for the arms instead of the metal heretofore used in most stethoscopes, and I have had the flexible tubes made so as to give a smooth inner surface to the coiled wire, which holds them in shape. We have succeeded in embedding the wire between two tubes of soft rubber and then vulcanizing them together. This arrangement gives nearly as natural effects as does a stethoscope made wholly of hard rubber, which of course would be inflexible and unvielding.
- 2. As to the form of the instrument.—The size of the canal in this instrument is largest at the attachment of the bell and gradually decreases in diameter to the ear ends, and is in imitation of those trumpets or conversation tubes which best serve the purposes of deaf persons, owing to their property of concentrating and conducting the waves of sound, and forms one of the principal advantages of the instrument.

The larger sized tube used in this stethoscope is an especial advantage to those physicians who have slight defects in hearing, and will be preferred we believe by the great majority of the

profession. The ear-tips are shaped with particular reference to the direction of the canal in the arms of the stethoscope and have the lower and forward edges bulged to such an extent as to fill in spaces behind the tragi, so that it throws the tube openings in the direction of the auditory canals. The ear-tips are crowded into the external auditory canal as firmly as can be comfortably done by means of a rather stiff spring, which brings the arms of the instrument together, and which is supplied with a set screw so that it can be regulated to suit the listener.

All the joints, bells, tubes and arms are constructed on the principle of a slightly conical tube, each portion fitting evenly and tightly into the other, and the fastenings of the flexible portion to the gutta-percha are so perfect that there is no interruption in the transmission of sounds from the chest to the ear.

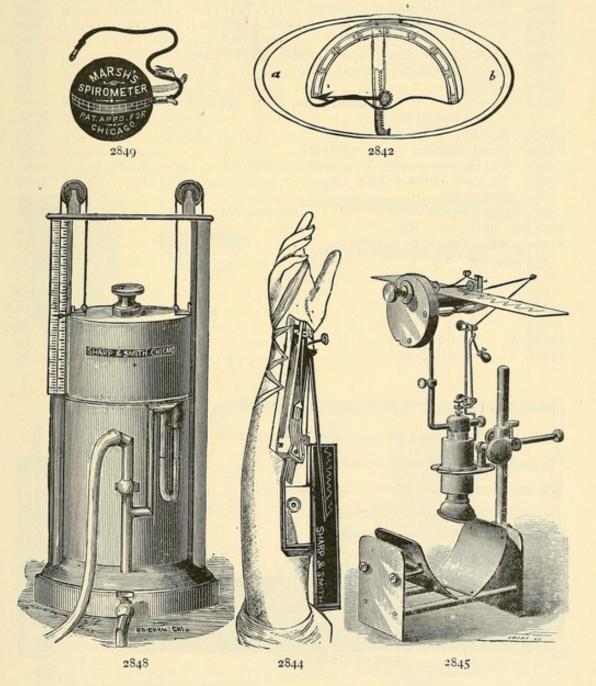
2838

	INSTRUMENTS FOR PHYSICAL DIAGNOSIS.	
*2823	Flint's Percussion Hammer, best	
	" " rubber	75
*2824	Tabbet	55
2825		I 00
2826	Dartiett's	90
2827	Winterion S	1 50
*2828	Wells	1 25
2829	Schroeter's	1 50
2830	North S	1 00
2831	Post's Hard Rubber Pleximeter	60
*2832	Finit S	25
2833	Ivoly	1 00
2834	Bartlett's Hard Rubber "	60
*2835	Camman's Inter Costal Auscultator	1 25
*2836	Ingal's Embalometer	2 25
2837	Seguin's Æsthesiometer	3 20
*2838	Vance's "	4 00
*2839	Carroll's "	3 00
2840	Hammond's "	2 00
2841	Sieveking's "	3 20
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All instruments designated by a * are illustrated.

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

W-0	D.	06
*2842	Dynamometer	 \$ 0 00
2843	Dudgeon's Sphygmograph	
*2844	Marez's "	 60 00
	Pond's "	
2846	Brown's Spirometer	
	Barnes' "	
*2848	Hutcninson's "	 32 00
*2849	Marsh's "	2 50
2850	Extra Balloon for Marsh's Spirometer	 25
2851	Dio Lewis' Improved "	 11 00



All instruments designated by a * are illustrated.

## 2852 Carroll's Stethometer		INSTRUMENTS FOR PHYSICAL DIAGNOSIS.	
285.3 Quain's "		Carroll's Stathomator	
### 12 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Carroll's Stethometer	
2855 Waldenberg's Pneumatometer. 6 50 2856 "Pneumatic Apparatus. 67 50 2857 Tobold's "" 485 2859 Holden's Resonator. 2 00 2860 Camman's Cardiometer. 4 00 2861 Flint's "80 2862 White's Haemarheumoscope. 1 20 2863 Spring Tape Measure, Metal Case, 3 feet. 40 2864 "" "5 feet. 45 2865 Chestermann Steel Tape Measure, Metal Case. 1 50 2867 English "enamel stem, plain black letters, and graduated test glass. 50 2868 Squibbs' Urinometer. 75 2870 Hard Rubber "(patent). 2 25 2871 Thermometer and Urinometer combined. 1 25 2872 Vance's Urinary Test Case. 4 50 2873 Compact "50 2874 Complete "with reagents. 16 50 2875 Test Tubes, 6 inch. 50 2875 "8 "10 2875 "8	0.40		
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2857 Tobold's " " 48 50 2859 Holden's Resonator 2 00 2860 Camman's Cardiometer 4 00 2861 Flint's 8 00 2862 White's Haemarheumoscope 1 1 20 2863 Spring Tape Measure, Metal Case, 3 feet 4 00 2864 " " " 5 feet 4 45 2865 Chestermann Steel Tape Measure, Metal Case 1 50 2866 Plain Urinometer, Wood Case 5 50 2867 English 8 00 2869 Squibbs' Urinometer 1 75 2870 Hard Rubber (patent) 2 2 25 2871 Thermometer and Urinometer combined 1 2 25 2871 Thermometer and Urinometer combined 1 2 25 2873 Compact " 5 00 2874 Complet " with reagents 16 50 2875 Test Tubes, 6 inch per doz. 35 2875 " 5 " 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
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2864 " " " 5 feet		White's Haemarneumoscope	
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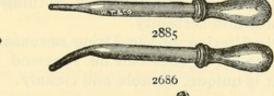
All Instruments designated by a * are illustrated.

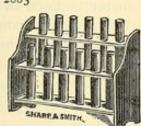
PHYSICAL DIAGNOSIS APPARATUS-URINARY.

PAG.			
*2877	Test Tube Rackseach,	8	75
*2878	Roberts' Test Case (modified by Lewis)	25	00
2879	Glass Alcohol Lamps, with Burner and Ground Glass Caps, 2 oz		35
2879			45
2880	Litmus Paper, red or blue, per book		10
2880	" " per sheet		Io
*2881	Porcelain Evaporating Dish with Lip, 2 oz each,		25
*2881	" 4 oz		40
*2881	" " 8 oz"		50
*2881	" " " 16 oz		75
*2881	" " 32 OZ	T	00
28S2	Watch Crystal Shape Evaporating Dishdozen,		75
*2883	Beaker Glasses, 1 oz		75
*2883	" 2 0Z "	-1	25
*2883	" 4 0Z "	T	75
*2883	" nested, 5 in nest, 2 to 10 oz	Ť	25
2884	Blow Pipes, Brass	-	50
*2885	Medicine Droppers, Straightdozen,		50
*2886	" Curved"		.50
2887	Barnes' Medicine Droppers "		90
2888	Mohr's Burettes, 25 C. C	-	75
2888	" 50 C. C	2	00
2888	" " 100 C. C	2	50
2889	Graduated Pipettes. "	-	25
2890	Curved Brass Forceps		40
2801	Straight " " "		40
2001	Straight		40









2877

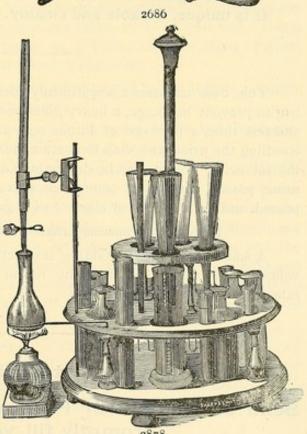
FIG. 2878 Roberts' Urine Test Apparatus (improved by Lewis).

Consists of the following parts:

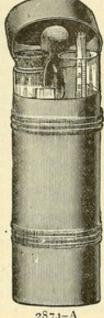
- 1 Set Neubaur's urinometers with two test glasses.
 4 Urine glasses.
 6 Test tubes.

 - I Alcohol lamp.
 - 5 Bottles with pure reagents. I Burette with holder.

3 Pipettes and 3 stirring rods.
1 Graduate.
1 Flask with ring support for same.
The whole on a revolving etagere of black walnut, etc., with printed description



BARTLEY'S POCKET URINARY TEST CASE.



WARRANTED.

MANUFACTURED OF GERMAN SILVER.

Dimensions 4x1 1/4 x 1/2 inches.

THOUSANDS IN USE.

The Re-agents (Powders) are prepared from the formulæ of Dr. E. H. BARTLEY, of the Long Island College Hospital, and chemist to the Board of Health of the City of Brooklyn. The Case is designed for the use of physicians at the bedside of the patient, or for the office. With it a complete examination of the urine, for clinical purposes, can be made.

2874-A

These Re-agents leave nothing to be desired as regards delicacy and certainty.

No filtering of the Urine necessary.

The Re-agents can be renewed by your home Druggist. It is unique, durable and cleanly.

This case contains a scientifically correct urinometer inclosed in a cloth bag to prevent breakage, a heavy glass test tube serving as a urinometer jar and test tube, a package of litmus test papers, a pipette for convenience in handling the urine, two vials to contain the test powders and spoon. With these the following points may be determined at the bedside, viz.: The quantity of urine passed, the color, transparency, reaction, specific gravity, total solids passed, and the presence or absence of sugar and albumen.

Each Bottle contains sufficient Powders for some 50 Tests.

A small handbook containing instructions, formulæ for the powders and valuable information obtained by recent investigations of Dr. Bartley and others, accompanies the case.

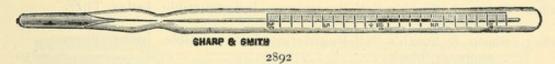
Please do not mutilate this book.

Send us Number of Page and Figure, and we can promptly fill your order.

SELF-REGISTERING FEVER THERMOMETERS.

With Absolutely Indestructible Register.

The great improvement made in self registering fever Thermometers, by forming an indestructible register, has within the past year or two, practically driven from the market the old style of fever Thermometer, which registered by means of a piece of mercury detached and separated from the main column by a small air space. The indestructible register is formed by a very small contraction of the caliber near the bulb, which allows the column to rise, but upon contraction of the mercury the column breaks at the contraction in the caliber, thus leaving that part of the column above it a stationary register, until shaken down by the operator. We particularly recommend this Thermometer to the trade All of our clinical Thermometers are made from seasoned tubes, and put up in hard rubber cases. Certificates from the Thermometric Bureau of Yale College, will be furnished if desired.



A Few Remarks about Clinical Thermometers.

The normal temperature of the human body, at completely sheltered parts of its surface, amounts to 98.4° Fahr., or a few tenths more or less, and a rising above 99.5° Fahr., or a depression below 97.3° Fahr., are sure signs of some kind of ailment, if such increase or decrease is persistent.

The average temperature of the trunk of the body in the tropics is nearly one degree higher than in temperate climates.

The increase of temperature above 99° F., as measured by the thermometer is the best index of the amount of fever present in any disease.

The temperature of the body in disease is much more readily and rapidly influenced than either the pulse or respiration. The co-relation of the pulse, respiration and temperature is of the utmost importance to be known in many diseases. For example, in pneumonia, if the mean of the temperature is not above 104° Fahr., and that of the pulse is not above 120 in a minute, and the mean of the respirations not over 40 in same time, the case must be considered a slight one, and if the patient is healthy otherwise, he will surely commence to get well in from eight to twelve days, without any medical treatment beyond attention to diet and rest.

Each disease which runs a definite course (scarlet fever, measles, small pox, typhus, typhoid, rheumatism, acute phthisis, etc., etc.,) has a characteristic and distinctive range of temperature.

The necessity of using a reliable thermometer is, therefore, of the utmost importance.

Please Read and Carefully Observe these Directions.

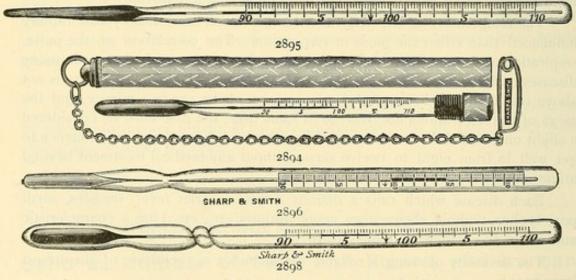
Thermometers are in working order, and always ready for application when the top part of the small bit of mercury that forms the Index is below the arrow point. After using it, and in order to bring the Index again below the arrow point and ready for use, take the top part of the stem of the Thermometer (near the 105) between the thumb and first finger, with the bulb turned downward, or inclined toward the fioor. In this position quietly swing from you (like a pendulum) from the elbow down, leave wrist hang as loose as possible. Always look at the position of your Index after each swing, until you again see the top part of it below the arrow point, and it is again ready for application. If it be found that one or two quiet swings is not sufficient to bring the top part of the Index below the arrow point let your swing be somewhat forcible. Don't shake the Index lower than is necessary.

One or more separations of the column does not put the instrument out of order. Always take the top part of the top separation for a reading, and so

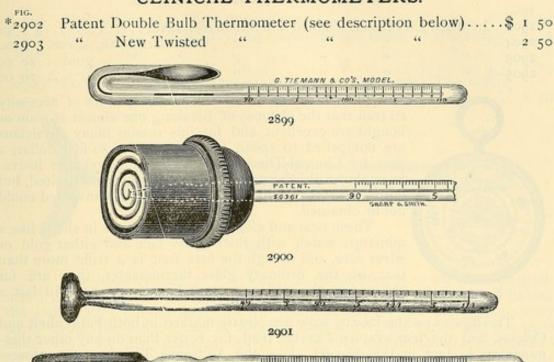
long as any separation remains the instrument is good for years.

By observing these directions you will have no trouble with your Thermometer.

FIG.									
*2892	Sharp &	Smith's S	Self-Register	ing Indes	structible	Index	Ther-		
	momete	r						\$1	25
2893	Sharp &	Smith's S	Self-Register	ing Indes	tructible	Index	Ther-		
	momete	r, black.						I	50
*2894			Gilt Case an						
			Thermomete					I	75
*2895	Sharp &	Smith's (one minute)	Self-Reg	istering	Indestru	ictible		
	Index	Thermom	eter					I	50
*2896	Hicks'	Self-Re	gistering Ind	lestructibl	e Index	Thermo	meter.	1	50
2897	" Len		"	"	"	"			75
*2898	Spiral		44	44	"	"		1	25
*2899	T. & Co.'s	Syphon	"	"	"	"		2	50
*2900	Spiral Sur	face Self-	Registering	Thermom	eter	\$6	oo to	7	50
2900A	Surface		"			2	50 to	7	50
	Seguin's S	Surface	44	"			-		00



All Instruments designated by a * are illustrated,



A matter of great importance to physicians, in order to obtain the temperature of a feverish patient, is to have a correct, quick working instrument, and one that will enable them to see the register quickly.

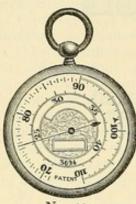
Many are the contrivances resorted to to enlarge the column, but the trouble has always been that a large bore tube requires a correspondingly large bulb, which would be too slow of motion, and therefore impracticable. Hicks, of London, has succeeded in enlarging the column of mercury by the use of a prismatic (magnifying) front, but there still remains the need of first finding the proper axis of the prism, so as to enlarge the column.

Annexed cut shows at once the advantage of this instrument above all others.

- I. Instead of a large, slow moving bulb, we use two small bulbs which by uniform action supply the large bore with a big column of mercury, the standing of which can be seen at a glance.
- II. The two bulbs exposing double the amount of surface to the influence of temperature than the single, will necessarily move much quicker.
- III. The double bulb forming a flat surface, will prevent the instrument from rolling, a point that will not fail to be appreciated by the practitioner.
- IV The instrument having an indestructible index (self register) by which the losing of the register is completely overcome.

In recommending this new instrument we guarantee that every thermometer is fully seasoned and carefully tested before leaving our factory, and certificates, when desired, will be issued from the Observatory in Yale College, New Haven, which will bear out our claim for accuracy.

*2904	Immisch's	Avitreous	Clinical	Thermomet	er, si	lver		7 50	
2904-A		44	44		with	certificate,	silver.	8 00	
2905	44	- 66	"	44			gold		
2905-A		"	66	"				-	



No. 2904

The glass Thermometers now in use, are of necessity so frail that the chances of breaking one almost as soon as bought are excellent, and for this reason many physicians are compelled to spend from twenty-five to fifty dollars a year for Clinical Thermometers alone. A reliable instrument that will last indefinitely has always been desired, but until *Immisch's Avitreous Thermometer* was invented could not be obtained.

These neat and elegant instruments are in shape like a miniature watch with thick glass face and either gold or silver case, and though the first cost is a trifle more than that of the ordinary glass thermometer, they are far cheaper in the end, as with ordinary care they will last a lifetime.

The figures on the face or scale are clearly marked in both Fahrenheit and Celcius, and the temperature can be read far easier than on any other thermometer; in fact, in this respect alone, the Avitreous Thermometers possess the greatest possible advantage over the best glass tube instruments ever made.

On account of their shape and size they can be either worn on the watch chain as a charm, or carried in a neat case in the vest pocket; while, if preferred, they may be attached to a small cord round the neck, which will allow the instrument to be inserted either in the mouth or axilla without fear of being swallowed or falling.

As a surface Thermometer it is unsurpassed for readily recording the temperature; its sensitive nature is shown by the slightest breath on the case causing the indicator to move.

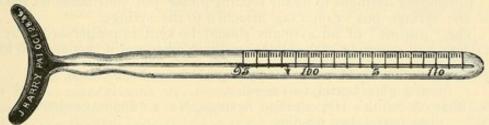
For use internally it can neither injure nor receive injury, and is consequently convenient and safe. Before being applied the instrument can be brought by friction to about normal; this saves much time with a restless patient or fractious child. No shaking down is required, the instrument readily accommodating itself to the altered temperature. About 30 seconds elapse before the temperature last recorded is changed. This is generally admitted to be sufficient time in which to take the reading.

The mechanism is so simple that it would be hardly possible for it to get out of order, and even in so unlikely an event it can be easily and inexpensively repaired. The action of the instrument depends upon the opening and closing of a metallic tube which is filled with highly expansive liquids; this being the case, it is insensible to barometric changes, as has been proved to the satisfaction of the highest scientific authorities. It received the only First Class award for Thermometers at the International Medical Congress, 1881, but has only recently been made for sale.

Possessing so many advantages over the ordinary thermometer, the glass of which is generally made so thin over the bulb that it becomes often dangerous to use, it cannot be wondered at, that it has received the highest praise from the medical press and profession, while the meteorological, engineering, and other scientific journals unite in recommending it to the public generally, as an accurate, ingenious and sensitive instrument.

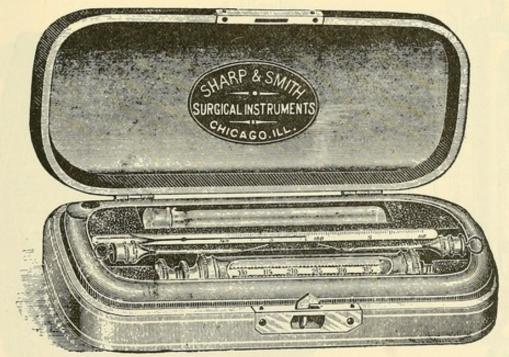
All instruments designated by a * are illustrated.

*2906 *2007	Sharp & Smith's Companion Case\$ Barry's New Self Registering Indestructible Index Thermometer	5	00
	" Self " " " "		13
- 201 101 101	ordinary	I	25
2909	Colored Bulb Self Registering Indestructible Index Thermom-		
	eter	I	50



2907

The improvement in Fig. 2907, Thermometer, is in the stem or graduated part, being brought parallel with the center of the cylinder, and having the bulb partly curved so that it will come in contact with all the necessary parts under the tongue, and at the same time will rest securely and not slide either way. By this means, as well as by the fact that the bulb is surrounded by the flesh, either with the mouth shut or open, the heat being evenly distributed, a more uniform and satisfactory result is obtained. The instrument may be used for surface temperatures, and its crutch shape also adapts it to the axilla. They cannot roll, are strongly made, and with ordinary care will last for years.



2906

Sharp & Smith's Companion Case contains 1 No. 3 Hypo. Syringe, 1 Fig. 2892 Thermometer, 1 Soft Rubber Catheter, Hypodermic Tablets, all in neat morocco covered, velvet lined case, $4\frac{3}{4}x1\frac{3}{4}x7\frac{8}{8}$.

We keep in stock a very large assortment of Hypodermic Syringes of our own make, and others. We guarantee the quality of all of them, and will repair syringes free of charge where the fault is our own.

In ordering "needles" for Hypodermic Syringes, it is better to send us the syringe on which they are to fit, or an old needle of the kind wanted, so

as to insure an accurate fit.

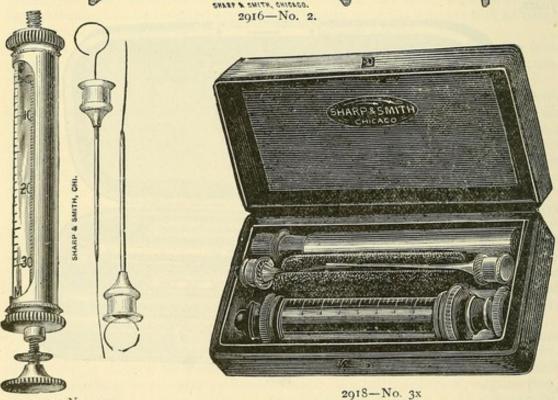
2017 - No. 3.

In sending syringes to us for repairs, please put your name on the bot-

tom of the syringe box or on a tag attached to the syringe.

The "pistons" of all syringes should be kept in proper order by frequent oiling, and renewing of the leather packing whenever it becomes too loose.

Sharp & Smith's Hypodermic Syringe, No. 1. Fenestrated, grad-2915 uated glass barrel, two needles.....\$ 1 50 Sharp & Smith's Hypodermic Syringe, No. 2. Plain, graduated *2916 glass barrel, two needles..... 1 25 Sharp & Smith's Hypodermic Syringe, No. 3. Fenestrated, grad-*2917 uated glass barrel, two N. P. Needles..... 1 50 Sharp & Smith's Hypodermic Syringe, No. 3x. Fenestrated, *2018 graduated glass barrel, two N. P. Needles (reinforced), morocco case, with space in top for wire, packing, etc..... 1 75 Sharp & Smith's Hypodermic Syringe, No. 4. Solid barrel, 2919 graduated on piston, two N. P. Needles..... 1 75 HILL THE



All of our Hypodermic Syringes are furnished with "cases," whether illustrated as such or not—except when otherwise designated.

HYPODERMIC SYRINGES. FIG. Sharp & Smith's Hypodermic Syringe, No. 5, Fenestrated, grad-2920 uated glass barrel, two N. P. Needles, oval Morocco case . . . \$ Sharp & Smith's Hypodermic Syringe, No. 6, Fenestrated, grad-292I uated glass barrel, two N. P. Needles, metal case..... 1 75 Sharp & Smith's Hypodermic Syringe, No. 7, Hard rubber bar-2922 rel, graduated on piston, two needles..... 1 25 Sharp & Smith's Hypodermic Syringe, No. 8, Fenestrated, grad-*2923 uated glass barrel, two gold-plated needles, syringe gold-3 00 plated, Morocco case, space in top for wire, etc Sharp & Smith's Hypodermic Syringe, No. 9, Double Fenestrated, *2924 graduated on both piston and glass, 3 assorted steel, nickel plated needles-in fine Morocco covered case, space in top of case for wire, etc., screw cap for keeping packing moist 2 25 Sharp & Smith's Hypodermic Syringe, No. 10, Pocket syringe, *2925 Double Fenestrated, capped at both ends, carrying two fine steel needles in one end, and provided with room at the other 2 00 end for carrying tablets if desired THE PARTY OF THE P SHARP & SMITH 2923-No. 8 -No 10.

This Hypodermic Syringe is a very popular one, being made with finger rests on the sides, which are of considerable assistance in using the instrument. They are also provided with a vial with perforated rubber stopper, which greatly facilitates the filling of the Syringe.

2924-No. 9.

FIG.	HYPODERMIC SYRINGES.
*2926	Sharp & Smith's Hypodermic Syringe No. 11. Same style as figure 2918, but with Gold Plated Needles
*2927	Sharp & Smith's Hypodermic Syringe No. 12. For Pocket. Patent Hollow
*2928	Sharp & Smith's Hypodermic Syringe No. 13. Very compact, holds 15 minims
	only, has two fine needles which are carried parallel with the barrel and are protected from rust by carefully sealed cylinders. The syringe in case is but
*2929	2½ inches long
	piston, end of barrel removable for introduction of hypodermic tablets; metal cap to screw on in place of the needle when the syringe is not in use. Six
	bottles of hypodermic tablets, two needles, in neat satin-lined Morocco case, with extra wires and washers
2930	Sharp & Smith's Hypodermic Syringe No. 15. Same as No. 14, but with ears on syringe
ERESCO.	
	Control of the Contro
E	
	2926
	2927
NAME OF TAXABLE PARTY.	
1	
1	
,	Cocaine Hydrochlorati Strychnine Sulphate, 1-50 grain. Morphine Muriate, Atropine Sulphate
/	Morphine Morphine Sulphate
/	
STATE OF THE PARTY	

2928

*acar	Sharp &	Cmith'	a No o	A LIvo	odormio	Ci.	200					0.	
2931	Sharp &	Similar	S NO. 9	A Hype	oderinic	Sylli	ige.			 	 	 φ2	50
2932	Tiemann	's No.	o Hypo	odermic	Syringe					 	 	 3	00
2933	46	"	I	"	44					 	 	3	00
2934	66	44	3	"	"					 	 	2	50
*2935	Fowler's	Hard	Rubber	Pocket	Hypode	ermic	Sy	ring	ge.	 	 	 2	50



Fig. 2931. SHARP & SMITH'S No. 9-A HYPODERMIC SYRINGE.

This Syringe is in shape and size same as our No. 9, but differs from that and all others in the construction of the piston, which is provided with an oil chamber between the exhausting and ejecting sections of the packing, which, when filled with oil, will distribute the same along the inner surface of the glass cylinder. The leather packing, in passing along this surface, will come in contact with the oil, and be continually lubricated. This will be found of great advantage when the instrument is not in constant use; because, as soon as the piston is withdrawn, the oil contained in the chamber is immediately brought in contact with the leather packing, which renders it soft, distends it, and keeps the syringe always ready for use. The chamber should be refilled occasionally. To refill, unscrew the upper cap and withdraw the piston just enough to expose the chamber, drop in a small quantity of oil, then replace the piston, and screw the cap down firmly.

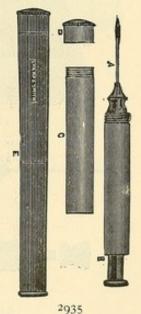
We put these Syringes up in same style as the No. 9, in velvet lined, morocco covered case -3 fine steel N. P. points, and a bundle of non-corrosive wires.

The Syringe is made at the end so as to allow of tablets being used.

Fig. 2935. FOWLER'S HYPODERMIC SYRINGE. For the Pocket or Pocket Case.

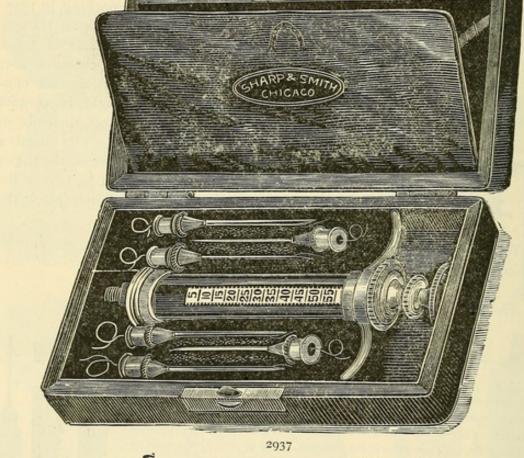
This Syringe consists of a hard rubber barrel and piston (b), a needle (a) whose mounting screws into the barrel, and a hard rubber tube (c) with a cap (d.) This second barrel serves the double purpose of a protection for the needle, and a receptacle for powders, eight of which, of a quarter of a grain each of morphine, can be placed in it.

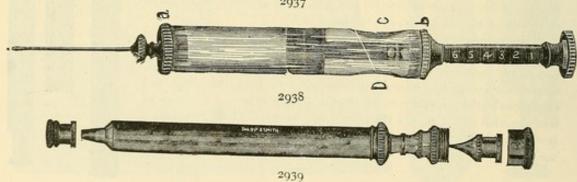
The instrument all screwed together, is represented at e and is about the size and shape of an ordinary Hard Rubber Thermometer Case, and occupies no more room in the pocket. To give a hypodermic injection, remove the receptacle, unscrew the needle, draw back the piston and empty one of the powders into the barrel. Then pour a few drops of water into the barrel, replace the point, and after giving the instrument a few shakes to make sure that the morphine is all dissolved, it is ready for use.



Instruments designated by a * are illustrated.

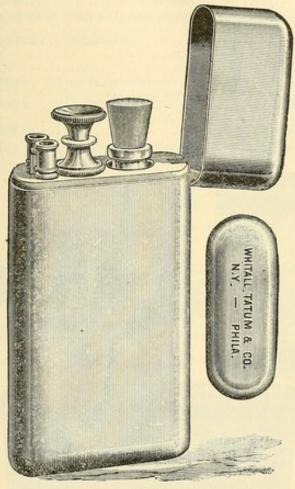
FIG.						
2936	Declat's H	ypodermic	Syring	ge, with two Needles\$	-	00
*2937		**	"	" four "	5	00
18000	Leiter's	"	"	Hard Rubber Case	2	7.5
		"	"	Leather Case, No. 1	2	13
*2939	Stimson's			IOF Docket, all silver needles fit in.		
	side the	Syringe.			2	00
2940	Centarola 1	pariet frype	dermi	C Syringe, two steel Needles Celluloid		
	Case				2	00
2941	Centinoid p	arrei fivoo	aermie	Syringe two steel Needles met'l case	-	
2942	rrypoderm	ic Syringe	and Co	ocaine Set	-	
2943	Greene's 1	Hypodermi	c Case	e	0	00
					7	





All Instruments designated by a * are illustrated,

FIG.		
*2944	Sharp & Smith's Hypodermic Syringe, No. 16\$2	25
*2945	W. T. & Co.'s No. 3 Phænix Hypodermic Syringe 2	50
*2946	"Farny" Metal Case Hypodermic Syringe 3	00





2945

2944



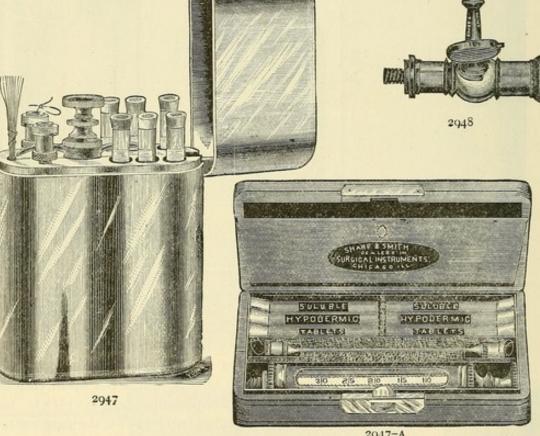
Fig. 2944 This Hypodermic Syringe is designed to use with soluble tablets, and is put up in very neat and compact nickel-plated case, 38x11/4x1/2 inch. Beside the Syringe and two Needles, the case contains 20 tablets of Morphine Sulphate 1/4 grain.

In other respects the same description will apply to this Syringe as to Fig. 2929.

2946

Instruments designated by a * are illustrated.

FIG.		
*2947	P. D. & Co's. Tablet Syringe in metal case, with six bottles of Tablets. This	
	Syringe has the Patent Plunger Attachment\$;	50
*2947-	A Sharp & Smith's Hypodermic Syringe No. 17,	50
*2948	Stop Cocks for Aspirator Attachment to Hypodermic Syringes	25
*2949	Pure Silver Canulas (Ingals'), to fit Hypodermic Syringes	00
2050	Hypodermic Bottles, Tiemann & Co.'s	75
2951		40
2952	" ", Pipette	40
2953		30
2954	" gold plated	45
2955	" nickel-plated	50
2956	" gold tips	75
2957	" aluminium	75
2958	" platinum	75
2959	" extra long	50
2960	" Trocar	75
2961	Oil Stone, for sharpening points, each	00
2962	Reamers for cleaning out Needles "	TO
2963	Wire for needles, per bunch	05



No. 17 same as Fig. 2917 (No. 3) except with 6 Tablet Bottles.



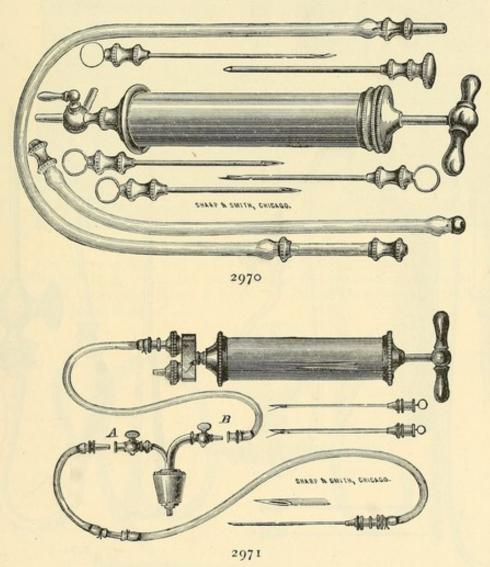
2949

All instruments designated by a * are illustrated.

ASPIRATORS.

We recognize the fact, that it is of the UTMOST IMPORTANCE to have an "Aspirator" in working order just when needed, and on this account we are more than particular to have every instrument (in this line) leave our office in PERFECT CONDITION.

*2970	Sharp &	Smith's	No.	Ι,	, Aspirator \$15	00
*2971	"	44		2,	" French Pattern 10	00
2972	"	44	66	3,	" with Trocars and Stop Cock 18	50
2973	Stomach	Pump .	Attac	hm	ment for Sharp & Smith's Aspirators 4	50

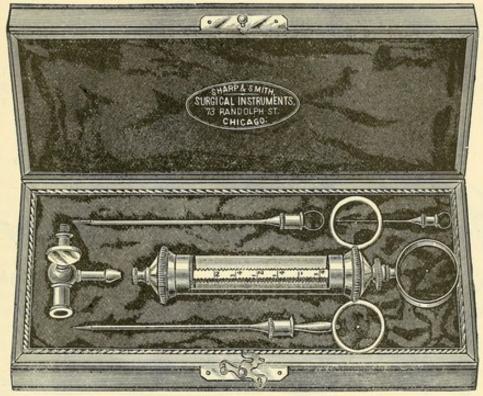


Instruments designated by a * are illustrated.

Sharp & Smith's No. 4 Aspirator, large SI1 50 2975	ASPIRATORS.	
2975 "No. 5" small	*2974 Sharp & Smith's No. 4 Aspirator, large	
*2976 Codman & Shurtleff's No. 1 Aspirator, in walnut case	2975 " No. 5 " small	9 75
covered case, with stopcock (to fit any bottle). 10 oo 25 to 25 Stop Cock for C. & S.'s Aspirators—to fit any bottle. 2 50 Flint's Aspirating Trocar, with Syringe. 3 75	*2976 Codman & Shurtleff's No. 1 Aspirator, in wal	nut case 12 00
*2978 Stop Cock for C. & S.'s Aspirators—to fit any bottle. 2 50 *2979 Flint's Aspirating Trocar, with Syringe. 3 75 2976 2978 2978 3 75	2977 " No. 2 " withou	it bottle, in morocco
*2979 Flint's Aspirating Trocar, with Syringe. 3 75 2978 2978 2978	covered case, with stopcock (to fit any bott	tle) 10 00
2076 2078 2076 2076 2076 2078 2076 2078	*2978 Stop Cock for C. & S.'s Aspirators—to fit ar	ny bottle 2 50
2076 2076 2076 2076 2076 2076 2076 2076	*2979 Fint's Aspirating Trocar, with Syringe	3 75
	A 2 Property of the state of th	2978
2979		

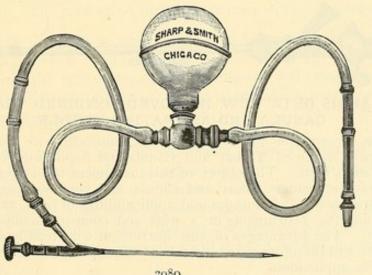
ASPIRATORS.

*2980 *2981	Sharp & Smith's Compact Aspirator\$ " Pocket Aspirator, Hypodermic and Brandy	3 50
35 5	Syringe Combined	4 00
2982	Sharp & Smith's Pocket Aspirator, etc, Syringe, same as above, without finger rings	3 00



2981

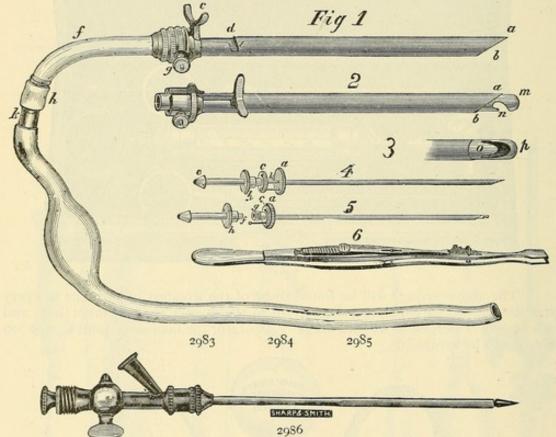
The above syringe will be found to be of the greatest importance to every practitioner. It is small, can be carried in the pocket or instrument bag, and in a case of emergency when a large "Aspirator" is necessary (and is not on hand), will be invaluable.



2980

ASPIRATORS AND TROCARS.

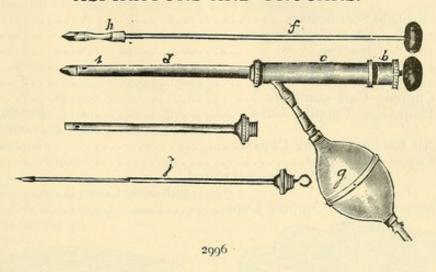
FIG.			
*2983	Fitch's Dome Trocar for Paracentesis Abdominis, 1, 2, 3, completes	\$10	50
*2984	" Aspirator Needles " " 4,5	I	75
*2985	" Aspirator Needles " " 4,5	3	35
*2986	Aspirating Trocar with Stop Cock		75
2987	" " " gold plated	3	25
2988	" Needles, assorted lengths, "each.	I	25
2989	" " " nickel plated "		85
2990	" Trocars, nickel plated		25
2991	Otis' Hard Rubber Aspirator	4	50
2992	Emmet's Aspirator	9	00
2993	English "	13	50
2994	Dieulafoy's "	30	00
2995	Excelsior " and Stomach Pump combined	15	00
2996	Dr. H. Landis Getz's Aspirating Trocar and Canula	6	75



DR. H. LANDIS GETZ' NEW IMPROVED COMBINED TROCAR AND CANULA AND ASPIRATING NEEDLE.

We take pleasure in presenting and recommending to the profession a New Improved Combined Trocar and Canula and Aspirating Needle, devised by Dr. H. Landis Getz. The object of this instrument is to overcome the disadvantages of the common trocar and canula and common aspirating needle and yet to preserve the advantages and applicabilities of both, and at the same time combining the instruments in a neat and compact manner at reasonable expense. The advantages of the instrument will readily suggest themselves, and we will therefore give only a brief description and a few suggestions concerning its application.

ASPIRATORS AND TROCARS.



a. Button which screws on trocar rod f, which is used as a handle, and also prevents the trocar from passing too far through the canula. To rod f are attached the three largest sizes of trocar tips; h, one of the tips are screwed on the rod f; c, handle portion of canula to which are attached by screw-joint the largest sizes of canula and the smaller or aspirating size f; c, represents the outlet from handle portion of canula; i, a short piece of glass tubing through which fluid is seen to pass; g, a reversible bulb which may be used for exhausting or injecting; b, cap attaching to c, by screw joint into which is placed a small rubber disk, cut from rubber bandage material, through which pass the exploring trocar or the larger trocar rod; a, one of the openings, of which there are several in the end of each canula, to allow the fluid to pass, which will aid in determining the entrance of the sac; a, exploring canula with trocar needle passed through it. This needle is of the same length as the parts a and a combined, and when a is used the needle is entered in the opening in a passed through the small rubber disk and then passed on through a and a until the needle point projects about one-eighth of an inch beyond the canula.

The instrument may now be used in the same manner as when used for exploring. The sac having been evacuated, the trocar point is pushed forward into the canula just beyond the attachment with c—the instrument still in the cavity, the bulb is now reversed, the trocar is again withdrawn past e and the cavity injected. The manner of again evacuating will readily suggest itself.

Should it be desirable to leave a drainage tube within the sac, detach the handle portion of canula ϵ from the canula proper, leaving the canula still in the sac, and pass the tube through canula into sac and now withdraw canula, leaving the tube dipping into the sac. The instrument is novel, neat, compact, inexpensive and complete.

Note.—A convenient and perfect female catheter is formed by the parts a, b, c, e and f, and the largest sized canula and a catheter tip (instead of trocar tip) attached to f. If the bladder is to be injected or washed, the instrument is used as when washing any other cavity. To use the instrument for washing or injecting the male bladder use parts b, c, e, i and g, with such size of canula attached to c as the end of will slip tightly into the opening of the male catheter.

CUPPING INSTRUMENTS. FIG. 8-blade Scarificators.... \$3 00 3000 plain Scarificators..... 3 00 3001 *3002 3 75 reverse 10 *3003 plain 12 3 50 12 " reverse 4 50 3004 Cupping Case complete..... 5 50 3005 Plain Glass Cupping Cups.....per doz. " " with Rubber Bulb.....each. 3006 I 00 *3007 50 All Rubber Cupping Cups 3008 75 Cupping Cup Caps..... 60 3009 Pump, metal, nickel plated..... 1 85 3010 3 00 with Stop Cock..... 3011 Stop Cocks for Cupping Cups..... 3012 Sharp & Smith. 3002-3004 3001-3003

This case contains: Three Glass Cups, mounted; three Stop-cocks, and fine nickel plated Pump. In morocco case, velvet lined.

3007

CUPPING INSTRUMENTS.												
*3013	Knann's	Glass Cu	inning	Cuper	with R	ubber	Pim	No :	, ,	ach	0.	25
*3013	Knapp s	Glass Ct	apping "	Cups v	WILLII IN	"	Kiiii,		2	acii.		25
*3013	66	"	"	"	"	"	64			"	I	00
******		"	"	**	"		"	"	3	**		75
*3013	"	66	66	"	**	"	"	"	1	"		75
*3013	"		unnina						5			50
*3014	"	Metal C	upping	Pump							1	00
*3014		Japan	11.	C							5	75
*3015		Hard R										50
*3016		n Spring	Lance								1	25
3017	German	1										50
3018	" SI	lver"	"									75
3019		e C 1	0			les					2	00
3020		& Co.'s										50
*3021		Artificial	Leech									50
3022	Hertelou	ps "										00
3023	Smith's	m									3	50
*3024		s Transfi									6	00
3025	Fryer's			"							4	85
3026		's Media	te Trai		n Ap						3	00
3027	McDona	ld's		**		**					4	50
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VACCINATING INSTRUMENTS.

FIG.		
3028	Spear-point Vaccinating Lancet \$ 6	0
*3029	Thumb " " 5	
*3030	Vaccinating Lancet and Comb 7	
3031	U. S. Army Vaccinating Instruments 1 8	5
3032	Vaccinating Trocar 1 8	5
3033	" Comb, plain metal (6 needles) 2	-
3034	" Scarifier, plain 7	5
*3035	Cyrus Edson's new Vaccinator 1 5	0

A NEW VACCINATOR.

BY CYRUS EDSON, M. D. New York.

The little instrument shown in the cut has been in the hands of members of the vaccinating corps of the Health Department of New York during the past year, and has proved very useful. It consists of a needle holder, similar to those used by microscopists, having two jaws that are approximated by means of a sliding ring. These jaws are funnel shaped at their extremity in order to facilitate the introduction of the needle, which is inserted to the depth of three-fourths of its length.

The handle is of hard rubber, with hollow space sufficiently large to hold twenty-five No. 5 needles. To use the instrument the operator unscrews the cap, selects a needle, fixes it in the jaws, and proceeds to scarify. Having performed the operation, the needle is removed and thrown away.

The scarification made by the needle will be found to be better for the purpose in question than that made by the lancet—the skin and vessels being



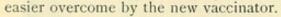
torn, and not cleanly cut. The result is that a larger absorbing surface is exposed and just sufficient blood and serum exuded to dissolve the virus from the quill.

The instrument can be used more rapidly than the lancet, if time is taken to cleanse the latter after each vaccination is performed.

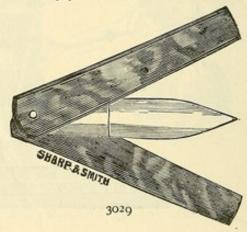
The cost of needles is only five or six cents per paper of twenty-five.

The device was contrived partly to meet the objections to vaccination made by parents of children attending school, on the ground that in the use of the lancet disease was liable to be transmitted from child to child. Indeed, one case of skin disease was alleged to have been caused in this manner; investigation, however, disproved it.

The popular prejudice against the lancet is deeply rooted, and is best and

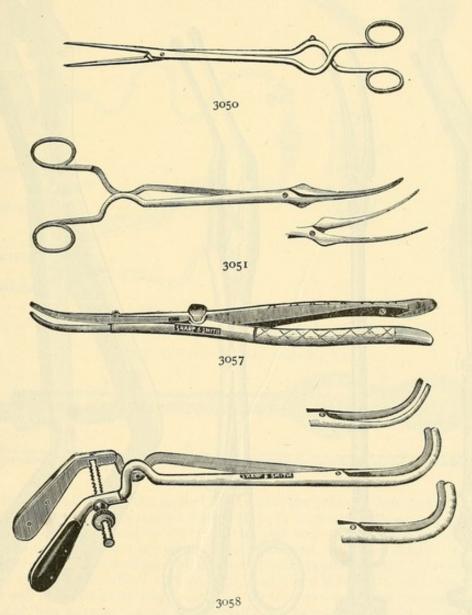




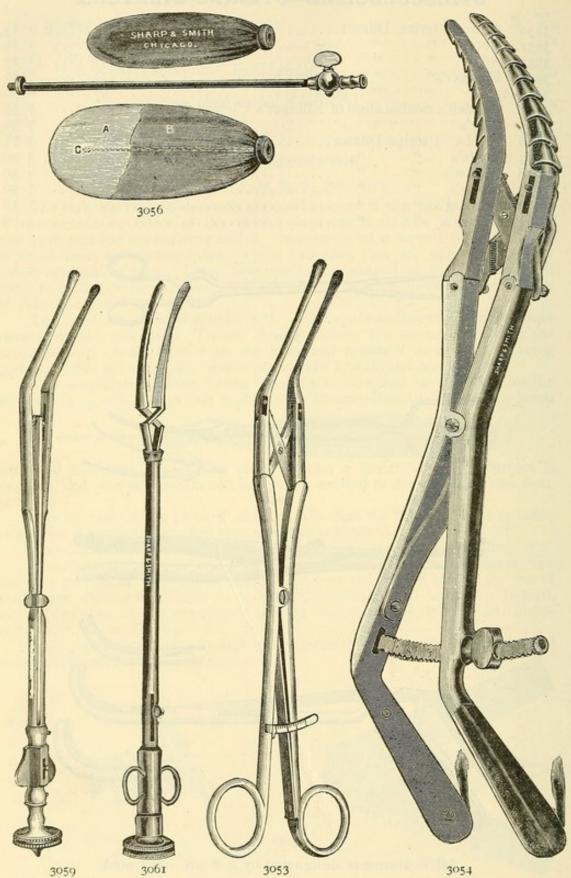


GYNÆCOLOGICAL-UTERINE DILATORS.

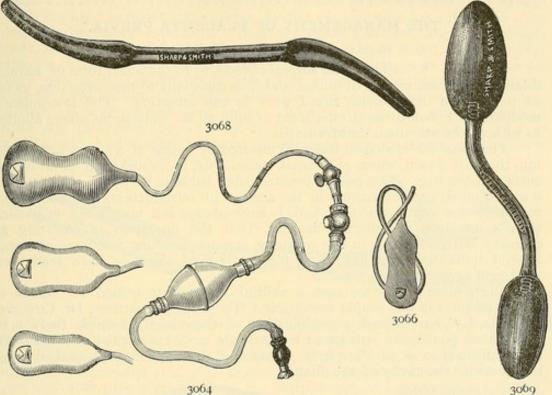
FIG.																	
*3050	Atlee's U	terine	Dilato	r									 		 . 8	3 2	25
*3051	Nott's	"	**										 	 		2	25
3052	Ady's	44	44										 	 		11	25
*3053	Ellinger'	s"	"	with	Rat	che	t						 			7	50
3053-A	. "	44		plain												6	50
*3054	Goodell's	s modifi	cation	of E	Illin	ger'	s l	Jte	rine	D	ilat	or.	 			7	50
3055	Baer's	66		"	6			66			66				 	7	50
*3056	Hobbs'	Uterine	Dilat	or									 	 		3	75
*3057	Wylie's	"	44										 	 		3	00
*3058	Wilson's	"	-4										 	 	 	4	50
*3059	Miller's	44	**										 	 	 	7	50
3060	Schweig'	s "	**										 	 	 	7	50
*3061	Nelson's	**	66											 	 	4	00



All instruments designated by a * are illustrated.

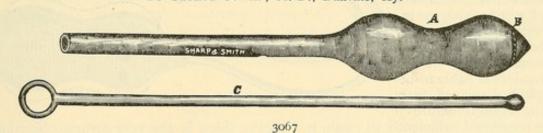


FRG.									
3062	Barnes'	set of 3	Uterine	Dilator	S		\$	1	50
3063	46	" 3	"	66	with	Stop Coc	k	2	00
*3064		" 3	66		66	"	and Syringe	3	25
3065	"	single	**	"	44	**		1	00
#3066	- 66	66	44	66				-	65
*3067	Cowan'	s modific	cation of	Barnes'	Uter	ine Dilate	or	1	85
*3068	Hanks'	set of 10	small		66	Dilato	rs	3	75
*3069	66	" 10	large		66	16		4	25
0									3
1							1		



A NEW MODIFICATION OF BARNES' DILATOR.

BY GEORGE COWAN, M. D., Danville, Ky.



In the Barnes' dilator the pocket into which the probe is inserted for introducing the bag serves as a serious obstruction to its easy introduction, besides being placed externally and to one side of the bag—a very unsuitable point upon which to direct the force which is to guide and push the dilator into its place in the canal. Furthermore, the distal extremity is unnecessarily blunt or flat.

The modification which I have had made, and which the accompanying diagram will serve to illustrate, is circular on transverse section throughout its length, and has a tapering distal extremity for its easy introduction into the cervix uteri. The probe which accompanies it is a small brass rod, having a

small button shaped extremity, and is introduced through the gum tube to the inside of the bag, and finally lodged in the center of the extremity, thus enabling the bag to fold and adjust itself neatly and closely around the probe during its passage through the cervix and along the canal, while the force is applied in the most advantageous position, *i. e.*, inside the dilating bag.

*3070	Dr.	Malcolm				Uterine Dilator.\$		
*3071		"	44	Forceps for	introducing	g above	3	35
*3072	Dr.	Bernay's						

THE MANAGEMENT OF PLACENTA PREVIA.

BY MALCOLM MCLEAN, M. D., New York.

* * There are several objections to the usual form of Barnes dilators which are worthy of notice, and it is especially to the correction, as far as possible, of these faults, that I wish to call attention. The instruments, modified, as I shall demonstrate, seem to fulfil all the indications above alluded

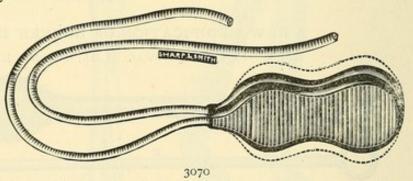
to without the attendant disadvantages.

The usual fiddle shaped bags are inserted by means of a sound introduced into the little pouch, which is situated, necessarily, at an awkward point on the surface of the bag. This pouch, besides being liable to be punched through in a somewhat dangerous manner in the attempt at introduction, is a convenient receptacle for septic matter. And I have always felt misgivings in passing such a one into the uterine mouth. That the operation of inserting an ordinary Barnes' dilator in the ordinary manner is often a tedious performance, I think those who have most frequently used them or have seen them used, will agree.

I have more than once seen a skillful accoucheur baffled for fifteen or twenty minutes in this simple manœuver. To facilitate matters, Dr. Cowan of Danville, Ky., has offered a modification of these bags, in which there is no superfluous pouch, the instrument being made more cylindrical, and the distal end reinforced so as to allow firm pressure of a rod which is passed through

the tube into the cavity of the dilator.

There is one objection to Dr. Cowan's instrument as it is presented, viz., necessity of withdrawing the inserting rod before distension of the bag is commenced. This renders it liable to become displaced from the os uteri before it



is expanded sufficiently to retain it. Again, there is the very serious objection to all the dilators described, in their use in cases of placenta previa, that they

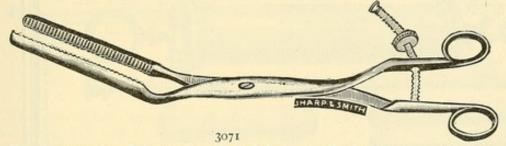
have to be graduated in sizes to suit the dilating cervix.

In exchanging from a small one to a larger there is liability to some hæmorrhage, and the operation of insertion has to be gone through a second or third time. Anything we may do to avoid unnecessary manipulation is desirable, especially in instrumental manœuvers.

I have therefore devised a modification of Dr. Barnes' dilator, by which the operation of dilation, etc., by their use, is easily accomplished without the disadvantages alluded to. As will be seen at a glance, it is a duplication of the

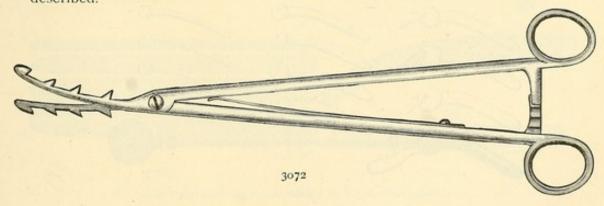
bag and tube, so that one side may be distended independently of the other, thus requiring but one insertion to get a very extensive dilation. These bags are made as smooth as possible, have no extra pocket, and are easily and quickly inserted by means of a pair of somewhat curved forceps, and are held in situ until sufficiently distended to retain themselves within the grasp of the cervix.

Any one who will use this means of inserting the water bags will be impressed with the advantage gained over other methods. In placenta previa time is exceedingly valuable, and this instrument renders the operation more valuable by being promptly accomplished. I have generally found one size all that is required in dilating the cervix, so that one insertion has sufficed to complete the necessary expansion. They are easily cleansed, are very strongly made, and there need be but two sizes used. I have found them also very valuable in the induction of labor for eclampsia, and I know of no other means which will accomplish delivery so safely and quickly. The objection made by some to India rubber dilators, that they are "apt to be found rotten just when needed," is scarcely worthy of notice. Because, in the first place, when well made and preserved, they will last for many months. (I have used one over two years.) And second, they may be obtained new on order at the better instrument makers of the cities.



The largest size I have found useful as a vaginal dilator or colpeurynter. For expanding this instrument I always used carbolized hot water. The pressure made by it is very powerful, and they should be slowly injected; one side being fully distended first, and as soon as the grasp of the cervix begins to relax the other tube is attached to the syringe and very slowly filled. In this manner continuous dilatation with complete occlusion of the bleeding os is accomplished, giving us most valuable aid in the management of placenta previa.

I ought to make mention of Tavarnier's dilator, which consists essentially of a rubber bulb, which is carried through the os into the uterine cavity, and being distended to about the size of a large English walnut, is left to excite uterine contractions. This instrument will seldom be useful, as the larger instruments may generally be introduced without difficulty by the means above described. * * *

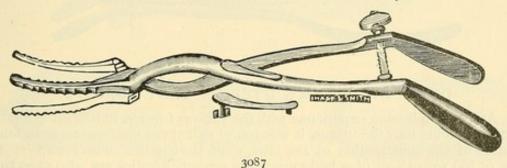


GYNÆCOLOGICAL-UTERINE DILATORS.
3073 Thomas' Uterine Dilator\$ 3 50
*3074 Hunter's " "
"3075 Peaslee's " per set 5 00
3076 Seimon's " (7 sizes)each 1 00 *3077 Palmer's " "
*3077 Palmer's " 4 00
*3078 Molesworth's Uterine Dilator
3079 Mansfield's Electric Uterine Dilator
3000 Bimpson's Det of
GENERAL SUMMER
3077
PATENTED DEC. 187, 1874,
3078
3075 3074
3080

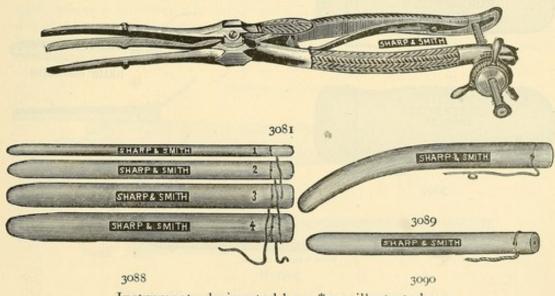
FIG.														
*3081	Sims' New Blade 1	Uterine I	Dilator										\$9	00
3082	Seeley's	"	**										2	00
3083	Scanzoni's	"	44										7	50
3084	Priestley's	"	"										7	50
3085	Emmet's Water	"	"										I	50
3086	" Sponge	"	- 66										1	85
*3087	Dr. Wm. Wm. H.	Wathen's	(Loui	sville	e,	K'y	J (.	Jtei	ine	Di	lato	r	6	00
*3088	Solid Elm Tents, s	straight									per (doz.	I	00
*3089	(2	00
*3090	Hollow " " s	straight											I	50

UTERINE DILATOR.

BY WILLIAM H. WATHEN, M. D., Louisville, Ky.

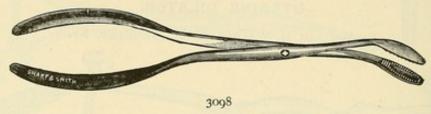


This dilator has been much improved, and to its superior qualities has been added a principle that makes it as perfectly aseptic as it is possible to have any surgical instrument. The blades are held together by a modified French lock that admits of the instrument being separated into its different parts in a few seconds, so as to be easily cleaned and made aseptic. This is the only dilator that is made after this fashion, and as the handles are of vulcanized rubber, hermetically sealed over the steel, there is no place where it is possible to have poisonous matter retained after any reasonable degree of surgical cleanliness.



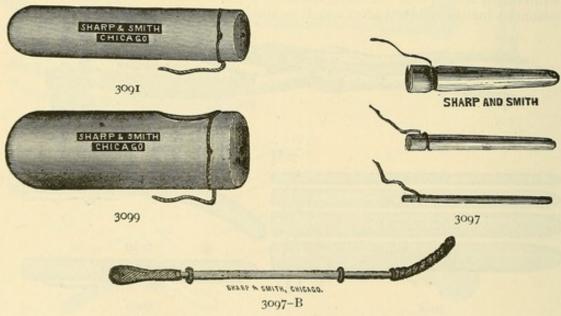
Instruments designated by a * are illustrated.

PIG.											
*3091	Cervical	Elm	Plugs	or T	ampoi	ns		ead	h 250	to	50
3092	Sponge	Tents	, best	qualit	y, car	bolize	d	per	doz\$	I	00
3093		"	"	"	3 - 11	"	curved.		"		50
3094	"	"	"				straigh	t waxed	"		25
3095	"	"	"			"	"		66		50
3096	Sea Tan								44	1	25
3096-				li		hollo	w		"	1	50
*3097	Tupello			66	"	solid.			**	I	50
3097-	A "	- 11			**	hollo	w		**	2	00
3097-1	B lent E	xpelle	r		• • • • •						55
*3098	Dr. K. V	v. Wil	COXS	Force	eps to	rintro	ducing (Jterine Tents		2	25
*3099	Eim vag	ginai	riugs					ea	ich 30	to	60



DR. R. W. WILCOX'S UTERINE TENT FORCEPS.

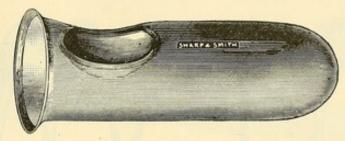
After considerable experience with the various forceps in use for the introduction of tents into the uterus, it was found that these instruments were faulty because of the construction of the jaws, or of the handle. The jaws were too long or too smooth, or of a bad curve; the scissors handles are also objectionable. In this instrument the proper length of the jaws was ascertained by experiment; they are made rough to take a firm hold upon the tent, and they are curved so that an unobstructed view of the tent itself and the field of operation is obtained. The handle is modeled after the very convenient ones in use upon the Collins needle holders, and the instrument can be taken apart to insure thorough cleanliness.



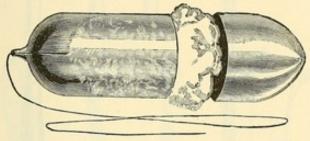
All instruments designated by a * are illustrated.

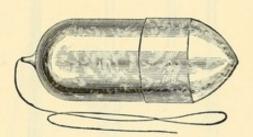
GYNÆCOLOGICAL.

E LUI			
3100	Sims' Glass Vaginal Dilators, set of six\$	2	25
*3101	" " "each		40
*3101	" Hard Rubber Vaginal Dilators "		
3102	" " set of six		75
43102	Set of Six	4	25
*3103	Anderson's Vaginal Capsules, sizes 1, 2 and 3per doz.		60
*3104	Thomas' Dry Cupper	I	00
*3105	Reese's Artificial Leech	3	50
3106	Smith's " "		
3.00	***************************************	2	50



3101



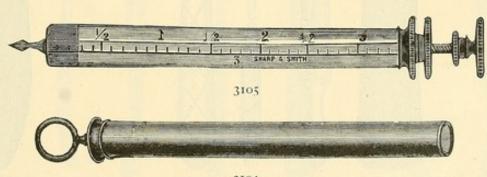


3103

ANDERSON'S ANTISEPTIC VAGINAL CAPSULES.

Size of Capsules.

Care should be taken to select the proper size for each patient. The small size No. 1 are generally used for young or unmarried women, and other cases where it is difficult to introduce a larger size. The medium size No. 2, are usually used for married women, and answer for most ordinary cases. The large size No. 3, is used in cases when it is desired to introduce more cotton, or when the parts are much relaxed.

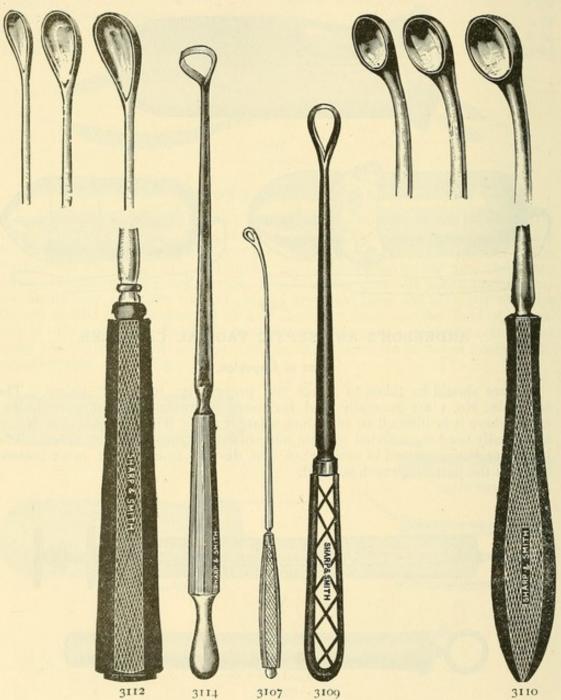


3104

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—CURETTES.

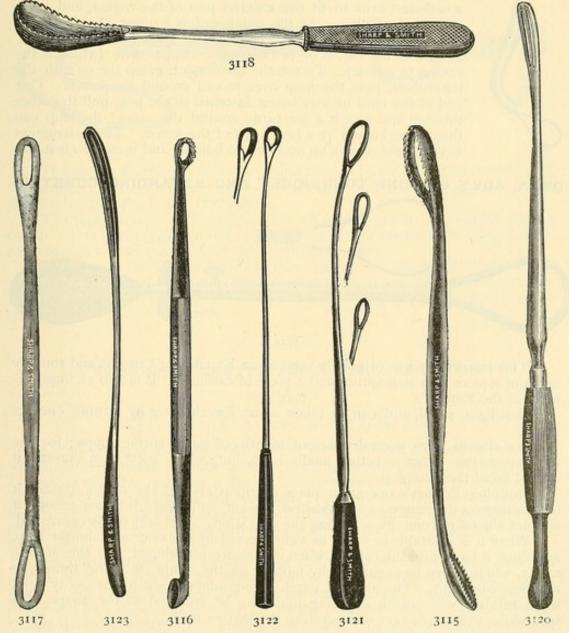
L LUIS																
*3107	Sims' Sharp Ute	rine	Curette		 			 						\$	I	50
3108	" Blunt	"	"	 			 			 					1	00
*3109	Thomas' Blunt	**	"	 			 			 	 				I	00
*3110	Siemons'	44	"	 				 		 		ea	icl	h	I	75
3111		66		 											2	25
*3112	Skene's	- 66	"	 					 						1	25
3113	White's	66	66													
*3114	Hoag's	"	- 16	 		 		 		 					2	50
	9															



Instruments designated by a * are illustrated.

GINECULUGICAL—CUREIIE	GYNÆCOLOGIC	AL-CU	RETTES
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E. E.Ch.												
*3115	Marcy's Uterine	Curette.					 	 	 	.\$	2	65
*3116	Burt's "	" .					 	 	 		2	65
*3117	Cheatham's "	"					 	 	 		1	85
*3118	Thomas' Serrated	Uterine	Curet	te or	Spoo	n	 	 	 		2	60
3119	Enge!man's	"	44				 	 	 		2	25
*3120	Duke's	- 44	44				 	 	 		2	00
*3121	Wylie's	"	**				 	 	 		1	75
*3122	Byford's	"	**				 	 	 		1	00
*3123	Recamier's	"	**				 	 			1	50

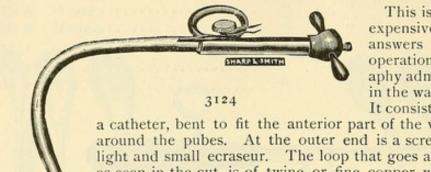


All instruments designated by a * are illustrated.

GYNÆCOLOGICAL-TOURNIQUETS.

*3124	A. Ady, M. D's. New Uterine Constrictor		
*3125		3	00
*3126	Dr. Chas. N. Dixon Jones' Rope Ecraseur for Hysterectomy	II	25

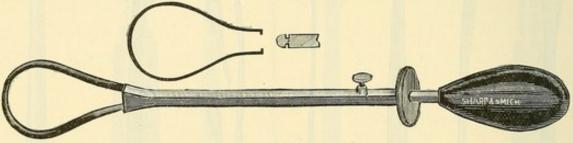
DR. A. ADY'S UTERINE CONSTRICTOR.



This is a simple and inexpensive instrument that answers the purpose of operations in trachealoraphy admirably, and is not in the way of the operator. It consists of a canula like

a catheter, bent to fit the anterior part of the vagina, and hook around the pubes. At the outer end is a screw like that in a light and small ecraseur. The loop that goes around the cervix, as seen in the cut, is of twine, or fine copper wire (which is the easiest to adjust). To use the instrument, grasp the os with the tenaculum, pass the loop over it and around the cervix. One end of the cord or wire being fastened to the peg, pull the other through and give it a few turns around the same; the loop can then be tightened by a few turns of the screw. The instrument is very light, needs no assistant to hold it, and is easily cleansed.

DR. A. ADY'S UTERINE TOURNIQUET AND EXPANDING CURETTE.



3125

This instrument was originally used as an Expanding Curette, and roughly made of a piece of watch spring and a piece of catheter. It is also an improvement of the Emmet's.

It is light, small, and can be taken apart for cleaning by turning one set screw.

We should have several different lengths of watch-spring loops; for the tourniquet, the latter is better made light, but, when used as a curette, it should be of the strongest.

In doing Emmet's operation, place the loop around the cervix, tighten it by pushing on the flange to any desired tension, and fasten it by set-screw; it will not slip off or come loose during the operation. It is very easily controlled.

When it is desirable to use it as a curette, put in a heavier and shorter loop, and draw it back into the canula, when it is easily introduced into the uterine cavity, where it can be expanded by pulling on the flange with the thumb, to any desired extent. The piece of watch-spring adapts itself to the cavity, and, when rotated, will detach anything that may be attached in the shape of a secundine, without danger of lacerating the uterine walls.

All instruments designated by a * are illustrated.

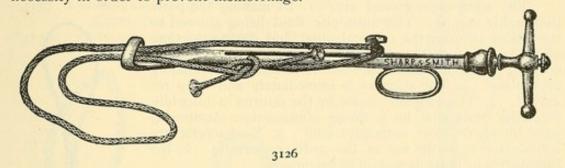
GYNÆCOLOGICAL-ECRASEURS.

A ROPE ECRASEUR FOR HYSTERECTOMY.

By Charles N. Dixon Jones, M. D., Brooklyn.

The accompanying cut illustrates a temporary rope ecraseur which I exhibited at the December meeting of the Section in Surgery of the New York Academy of Medicine. Those who are accustomed to use the elastic ligature in hysterectomy or supra-vaginal amputation of the uterus for myoma, will find the operation greatly facilitated by the use of this instrument.

Some form of instrument for temporary compression of the pedicle during manipulation and enucleation, before the stump is permanently secured, is a necessity in order to prevent hæmorrhage.



The elastic tourniquet is not so rapid nor so powerful in its action, and, furthermore, it is open to the more serious objection that it is apt to slip over the stump after the tumor is removed.

The rope ecraseur is a modification of Mr. Lawson Tait's well known clamp. It is made stronger and longer, being about fourteen inches in length so as to give a wide range of compression in the rope.

The rope is thoroughly boiled before use, so that it is not likely to slip. The instrument may be easily tightened during any stage of the operation. After it has accomplished its purpose the rope is cut, and the instrument is quickly removed and laid aside.

A COMBINED CURETTE AND DOUBLE CATHETER.

Fig. 3127.

By George E. Abbott, M. D., New York.

I send herewith a drawing of a double catheter, with a curette attachment, which has been found to work well by my friends and myself in several cases. It consists of a fac simile of a double catheter lent to me by Dr. Edwin F. Ward, (of New York) which has unusually large fenestræ for the free return of the injected fluid, to which may be attached the curettes D, E, F, on the round end of the catheter G. The curettes are of various sizes, and dull or sharp as desired.

For curetting the anterior surface of the uterus or other cavity, screw the curette on as far as it will go, when it will be in position as at D, Fig. 1, or A, Fig. 2. For the posterior surface, give the curette a half turn, when its concavity will look backward, and will attack the posterior surface wall. For curetting the sides, unscrew the curette a quarter turn or a three-quarter turn, when it will have the position of Fig. 2, C or B. (See next page.)

GYNÆCOLOGICAL—ECRASEURS.—Continued.

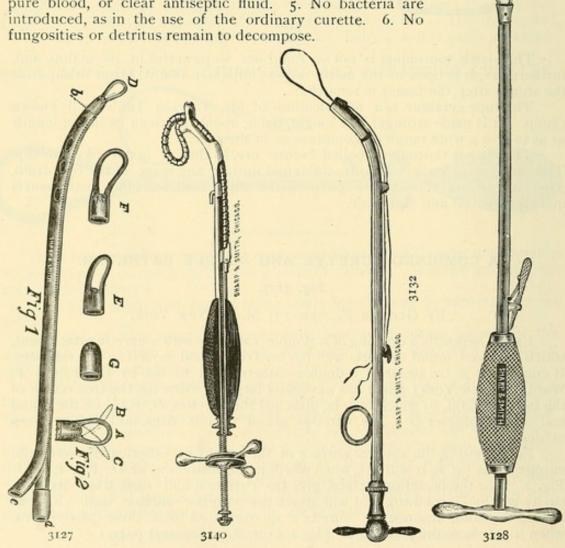
It will at first seem that, when placed in these positions, the curette would not attack its work, but would turn this way and that. That this is not the case can be demonstrated by curetting the sides of the hand as it grasps the instrument.

The curettes are attached by a fine thread and a long shoulder or tenon, as at b, and thus allow of the positions above indicated without loss of firmness.

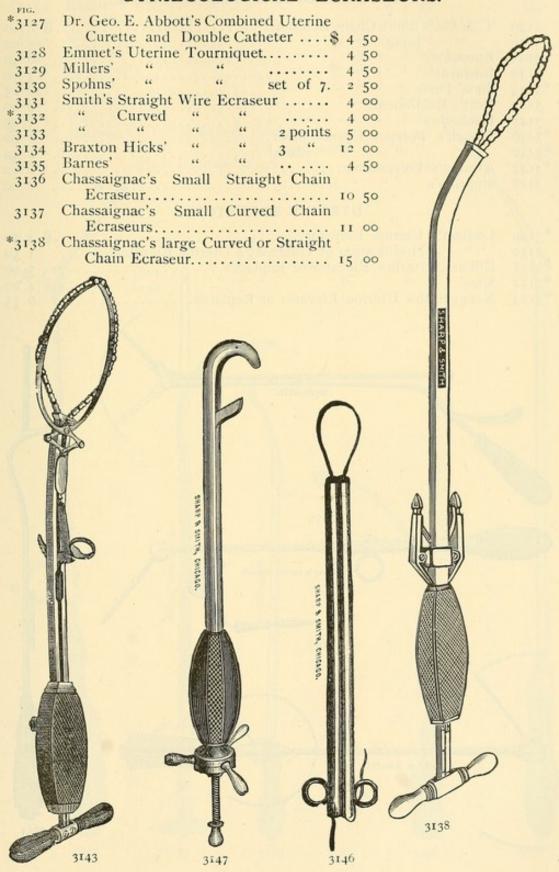
In use, a Davidson's syringe or irrigating tube is attached to the catheter at Fig. 1, a, through which the antiseptic fluid passes, emerging at the little holes at the base of the curette D.

The return current passes through the large fenestræ below b, and out at c, into a white receiving vessel. (It will add much to the comfort of the surgeon to have a tube attached to c, thus avoiding wetting his hands, etc.)

The advantages gained are: 1. In making the parts thoroughly aseptic. The antiseptic fluid being allowed to run before entering the cervical canal, and during the time of operating. 2. The denuded surfaces are immediately covered by the antiseptic fluid before infection can possibly take place. 3. The detritus is immediately and fully removed. 4. The surgeon can see by the returns in his white receiving bowl what he is doing—fungosities, membrane, pure blood, or clear antiseptic fluid. 5. No bacteria are introduced, as in the use of the ordinary curette. 6. No fungosities or detritus remain to decompose.



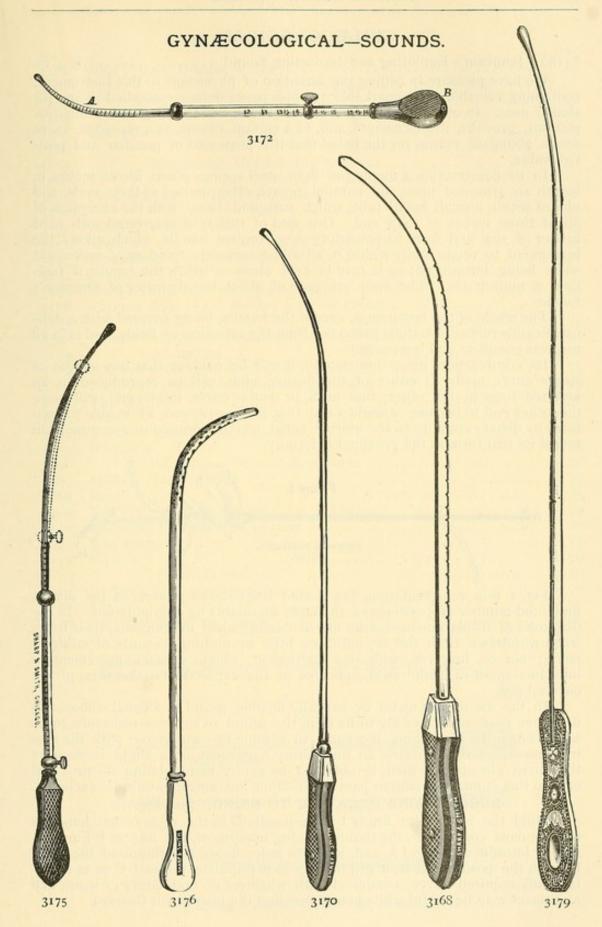
GYNÆCOLOGICAL-ECRASEURS.



	GYNÆCOLOGICAL—REPLACERS.
3139 ***********************************	T. & Co.'s Short Chain Ecraseur\$ 8 00 "Long " "
*3140	Long
3141	
3142 *3143	
	NT 1 TO 111
3144	Nott's Rectilinear "
*3146	Gooch's Polypus Canula, silver 2 00
*3146	" " plated 1 50
*3147	Aveling's Polypotome
3148	Simpson's " 2 00
	UTERINE ELEVATORS.
*3149	Ludlam's Uterine Elevator\$ 4 50
	" Modification of Guernsey's Uterine Elevator 1 50
3150 *3151 *3152	Elliott's Uterine Elevator or Replacer 5 00
*2152	Sims' " " 4 00
*3153	Noeggerath's Uterine Elevator or Replacer 6 75
	3155 SHART SHITH, CHICAGO. 3153
	SHARP 4 SMITH 3154

GYNÆCOLOGICAL-ELEVATORS. *3154 Emmet's Uterine Elevator..... *3155 Carroll's 2 60 3156 Wylie's 5 00 *3157 *3158 Miller's 2 00 Guernsey's Skene's 3159 5 25 Gardner's 3160 6 00 3161 *3162 White's 3 75 Simpson's Uterine Sound, graduated..... *3163 *3164 not graduated..... 00 1 Plain Uterine Sound 70 SHARP & SMITH SHARP & SMITH, CHICAGO 3152 3151 3164 3162 3158

GYNÆCOLOGICAL—SOUNDS.	
*3165 Simpson's Telescoping Uterine Sound	2 0.
Jaco Folding	I 50
*3167 Pratt's Uterine Soundeach *3168 Peaslee's Graduated Uterine Soundeach	75
*2160 Sima' Dlain	1 50
*3170 " best " "	70
3171 Cutter's " "	I 00
3172 Jenks " "	2 65
*2124 Huntar's Clidian	1 50
"3175 Gidden's " "	I 75
*3176 Cupped Uterine Sound for applications of ointment	I 75
5'11 Battles set of Oterine Sound, Probes, etc.	2 75
31/0 Chapman's Set of "	3 50
*3179 Sharp & Smith's Plain Uterine Sound	70
	P
3169	
23	
QII	
SHARPA SMITH CHICAGO.	
(2)	
(6) (80) (80)	
The same of the sa	
3167	
3167	
3167	
3167	
3174 3165 3171 3166	



GYNÆCOLOGICAL.

*3180 Jennison's Exploring and Indicating Sound......\$ 3 00

We have pleasure in calling the attention of physicians to this Instrument, containing valuable and remarkable qualities never before embodied in any for similar uses. In explorations of the uterine canal, and the diagnosis of malformations, growths, displacements, and, to a certain extent, as a repositor, there seems abundant reason for the belief that it is possessed of peculiar and positive value.

In its construction a number of light steel springs about fifteen inches in length are arranged upon and parallel to each other, united at their ends, and placed within a small metal tube, which surrounds them, with the exception of about three inches at each end. One end of this tube is covered with hard rubber of size and form to constitute a convenient handle, which allows the instrument to rotate easily within it, affording complete freedom of movement while being introduced; or it may be held above or below the handle if freedom is undesirable. The ends are each of about the diameter of Simpson's Sound.

The whole of the instrument, except the handle, being covered with a delicate flexible rubber sheath, is protected from the intrusion of fluids, and is in all respects complete and convenient.

Its construction being understood, it will be evident that any simple or single curve made in either of the flexible ends will be reproduced in an inverted form at the other; that an S, or double curve, in one end, will cause the other end to become straight; and that the instrument, while able to conform its distal extremity to the uterine canal, whether normal or abnormal, will reveal its real form at the proximal extremity.

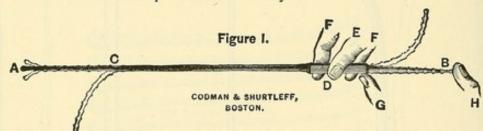


Fig. 1 is a representation, the dotted lines showing some of the almost unlimited number of positions of the ends attainable by manipulation. In the diagnosis of displacements by the use of flexible silver instruments, their form, when withdrawn from the os, indicates little or nothing, because of straightening; not so, however, with this instrument, which, at each movement of introduction or of withdrawal, indicates at the exposed end the form of the covered one.

In the use of any metal or partially flexible sound in a canal whose axis does not correspond exactly to its own, the sound overcomes resistance to its advancement by compelling the canal to assume its own shape; with the new instrument, on the contrary, an undulatory movement, or a slight increase of the curve already indicated, is obtained by gently manipulating its proximal end, so that it may be made to pass where other instruments would be excluded.

SUGGESTIONS RELATIVE TO USING. (See Fig. 1.)

Hold the instrument firmly by the handle D in the right or left hand, as may be most convenient, the thumb E being uppermost, the fingers F F underneath; introduce the end A, and, with the index finger and thumb of the other hand in the positions G H, it will be easy to manipulate the end B so as to obtain any required curve, combined with whatever of undulatory or worm-like movement may be useful while gently pressing the instrument forward.

	GYNÆCOLOGICAL-PROBES.	
FIG.	- · P. I	85
3181	Sims' Silver Uterine Probe\$	1 00
3182	" " with shield	00
3183	" Aluminium Uterine Probe	90
3103	, " " with shield	1 05
3184	Emmet's Silver Uterine Probe	85
*3185	" with shield	1 00
3186	" Aluminium Uterine Probe	90
3187	d —ith shield	1 05
3188	" With Shield	1 30
*3189	Lente's Caustic Probe, one bulb	1 65
3100	" " two "	-
*3190	Jenks' Uterine Probe	1 25
3192	Changle " and knife	75
	Whalebone Uterine Probe	40
3193	- 1	. 35
3194	Bull II - Dubber Uterine Probe	35
3195	Thomas' Flat Hard Rubber Uterine Probe	1 35
3196	Thomas Flat Hard Rubber Oterme Flag	85
*3197		1 00
*3198	Emmet's Silver Uterine Applicator, with slide "Aluminium " Mitchell's Uterine Applicator	1 00
3199	" Aluminium "	1 7
3200	Mitchell's Uterine Applicator	49
*3201	Budd's Hard Rubber Uterine Applicator	
3202	Thomas' " " "	1 5
3203	Budd's Hard Rubber Uterine Applicator Thomas' " " " " " " " " " " " " " " " " " " "	I 2
*3204	Tr Applicator	1 1
	D. 11 66 19 19 19 19 19 19 19 19 19 19 19 19 19	1 0
3205	" Whalebone Uterine Applicator	7
3206	Whalebone Uterine Applicator Miller's Hard Rubber " " " " " " " " " " " " " " " " " " "	3
3207	Miller's Hard Kubber	7
3208	Nott's "	7
3209	Rea's Uterine Applicator	10
3210	Recamier's Uterine Applicator	7
3211	Woodbury's " "	1 5
3212	Wylie's " "	
*3213	" Cervical Protector	2 5
3214	The state of the s	1 0
	Divon's " "	1 0
3215	Barker's Ointment Bougles Dixon's Lallemand's Porte Caustic	3 0
*3216	Cross " "	3 0
3217	Gross, " "	
	Contraction of the Contraction o	
	B .	
	3189	
	Control of the contro	
	THE HE	
	3191	
	G TIEMANN-CO	
	3185	
		,

3197
Instruments designated by a * are illustrated.

CTTAT	TOOT	OCTO AT	L-HOOKS
I-VN	44 ()	()(- I (A I	-HUNKS

FIG.	
Taary Sime Blunt Hook	
*3218 Sims' Blunt Hook\$ 9 *3219 Byford's Blunt Hook	90
*3220 Bozeman's " 1 1	
*3221 " Double Hook for exerting traction on the uterus 1 9	
*3224 Skene's " "	
	85
	25
*3226 F Perry's Barbed " "	
3228 Skene's Double " "	
	25
	25 85
3232 Heavy " " for pulling down the uterus. 1 5	90
3220E Bozeman's	-
*3233 " with steel shank I I	15
THINS SALES STORES OF THE STOR	HIM) TOURNS

3223 3224 3225 3216 3204 3198 3221 3201 3222 3213 3220 3219
All instruments designated by a * are illustrated.

GYNÆCOLOGICAL-HOOKS. FIG Wylie's Uterine Tenaculum.....\$ 85 3234 Dudley's 3235 90 3236 *3237 Thomas' 85 Pratt's 75 66 *3238 75 Double Tenacula and Tenaculum Forceps—see index. *3239 Sims' Pulley..... 90 *3240 Wire Adjuster.... I 00 *3241 Bozeman's Wire Adjuster..... 1 50 *3242 Sims' Enucleator..... 3 00 *3243 blunt hook..... 3 25 *3243A Emmet's Enucleator.... 3226 3243-A SHARP & SMITH, CHICAGO SHARP & SMITH, CHICAGO 3240 SATING CHICAG 3242 3231 3338 3233 3237 3241 3243

3233. Dr. Hanks' Improved Tenaculum is of the ordinary shape and size, but differs from other instruments of the kind in this respect. The steel shank is so constructed that the steel extends along the back of the handle, on the side opposite to the point or hook. When the latter is buried in the tissues, the direction in which it points will always be indicated by the metal back, as in the case of Simpson's sound, so that the hook can be disengaged immediately.

	GYNÆCOLOGICAL-DEPRESSORS.	
FIG.	Cime! Veginal Dangerous	0
3244	Sims' Vaginal Depressor	\$1 00
*3245	P	I 00
3246	Nott's Double " "	1 25
*3247	Bozeman's " "	1 00
*3248	Jackson's " "	1 30
3249 *3250	Hard Rubber " "	1 50
*3251	Whitney's " Hard Rubber	1 30
3252	Hunter's " "	1 50
3253	Ludlam's " "	1 50
3254	Peaslee's " "	1 75
*3255	Hoffman's Automatic Suture Instrument	4 25
*3256	Brickell's Perineal Stays	60
*3257	Munson's Quill Sutureper pair.	60
3258	Thomas' Tampons	1 15
3259	Yarrow's Tampon Carrier	2 50
*3260	Sims' Tampon Screw	1 00
*3261	Hard Rubber Tampon Screw	40
*3262	Sharp & Smith's " "	I 10
*3263	Emmet's Glass Button for Cystitis	25
*3264	Carroll's Knot Tier	1 85
*3265	Dr. Chas. D. Scudder's Knot Tier	I 50
	STREET STREET	
	SETTE PARTITION	
	3245	
	3245	
	3248	
	3248	
	3248	
	3248	
	3248	
	3248 3250	
	3248 3250	
	3248 3250 STATE BOXES 3247	
	3248 3250 STATE BOXES 3247	· ·
	3248 3250 STATE BOXES 3247	STREETE:
	3248 3250 STATE BOXES 3247	EMETATOR
	3248 3250 STATE BOXES 3247	Breissandt

GYNÆCOLOGICAL.

The accompanying cut represents an instrument devised by Charles D. Scudder, M. D., New York, to help in making knots, when suturing or ligaturing in cavities.

The instrument consists of a two-pronged steel shaft with a baked rubber handle. Each prong has an eye

near its end, and the distance between the eyes is three-eighths of an inch. The form of the prongs has been changed since the drawing was made, and the fork is now lyre-shaped. It can be made curved to any degree desired. The holes are carefully beveled, and three sizes—nine-inch, six-inch, and four-inch length are made.

In ligaturing, the first knot is carried over the hæmostatic forceps, and the ends of the ligature (which should be of good length) are passed through the holes in the fork, as shown in the sketch. The knot is carried down and placed by the knot-tier wherever wished, and suitable traction is made by pulling on the ends of the ligature, which are wrapped around the fingers of either hand, while steadying the handle with the thumbs. The instrument is then removed carefully, in order not to undo the knot; a new hitch, single or double, is made, the ends again threaded through the eyes, the knot placed, and firm traction completes the operation.

In suturing, the needle is detached after the suture is passed through the tissues to be sewn together, and the knot is made and placed as above described.

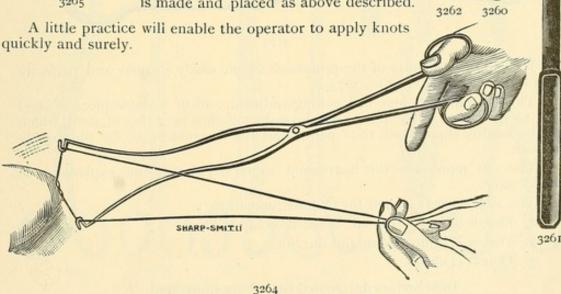
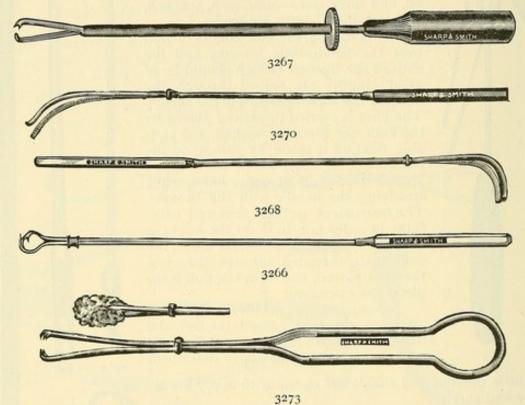


FIG.

GYNÆCOLOGICAL-SPONGE HOLDERS.

	Sims'	Uterine	Sponge	Holder			 		§	8	75
*3267	Hart's	"	"								50
*3268	Emmet's	"	"								75
3269	Granger's		"				 			I	75
*3270	Fergen's	44	44	"			 				00
3271	German S	ilver Ut	erine Sp	onge H	older,	long	 				55
3272	Ellsberg's	The state of	"	"	44		 				15
*3273	Husson's		"	44	**		 				75
3274	Byrnes' U	terine]	Fixator				 				85
3275	Perforated	I Shot					 	. per de	Z.		10
3276	Shot Pun	ching F	orceps				 			2	50
3277	Marcy's P	erineum	Pins				 	eac	h.		35
											1000



We call the attention of the profession to an easily cleaned and perfectly aseptic Sponge Holder (Fig. 3273.)

The instrument is nine inches long and made out of a single piece of steel wire, nickel plated. The blades are brought together by a ring of steel, which can be readily slipped off, thus permitting the instrument to be thoroughly cleaned.

The cut represents the instrument so clearly that further explanation is unnecessary.

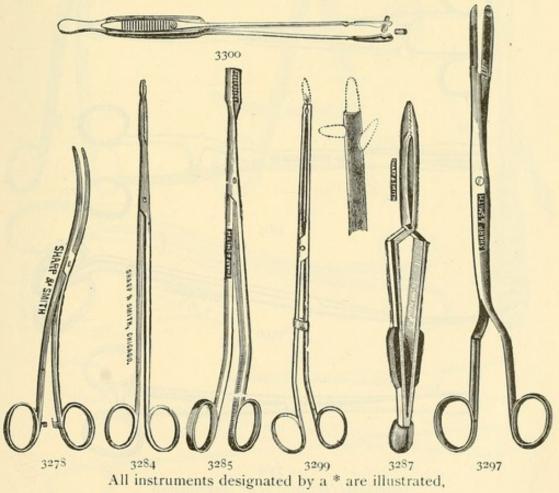
The advantages claimed for this instrument are:

- 1. That it is easily cleaned, hence thoroughly aseptic.
- 2. That it is light, strong and durable.
- 3. That it is cheap.

Instruments designated by a * are illustrated.

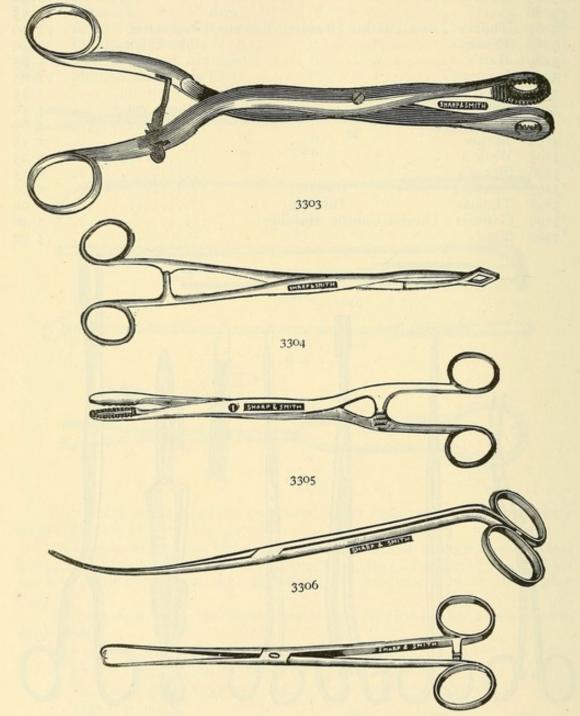
GYNÆCOLOGICAL-DRESSING FORCEPS.

FIG.									
*3278	Bozeman's	Uterine	Dressing	Forceps,	with cate	ch		\$1	75
3279		44	66	44	without	catch		1	50
3280	Sims'	66	44	64	"			I	75
3281	44	44	- 44	"	with slid	e "		2	25
3282	Elliott's	44		44	44	"		1	75
3283	44	"	44	16	without of	catch		I	50
*3284	Plain	66	44	66	**	"		1	50
*3285	Byford's	66		46	66	"		1	50
3286		a ·	44	44	with	"		I	75
*3287	Thomas' la	atest Ute	rine Dress	ing Ford	eps, cross	s action		3	00
3288	Emmet's				" slide	e catch		2	00
3289	Hart's	44	44		٠			I	85
3290	Leonard's	6	44		' with	catch.		1	85
3291	Allen's stra	night "							75
3292			"	6	' with	out cat	ch	1	50
3293	Winston's	- 44			·			2	60
3294	Buttles'	61	- 46					I	75
3295	Wylie's	**	- 44					2	25
3296	Shield's	66	- 66					I	75
*3297	Emmet's	- 66	Curett	te '				2	50
3298	Thomas'	44	Dilati	ng '	٠			2	00
*3299	Gardner's	Uterine (Caustic H	olding '	٠			2	40
*3300	Sims'	46	"	" "				3	00
10000								7.50	



GYNÆCOLOGICAL-POLYPUS FORCEPS.

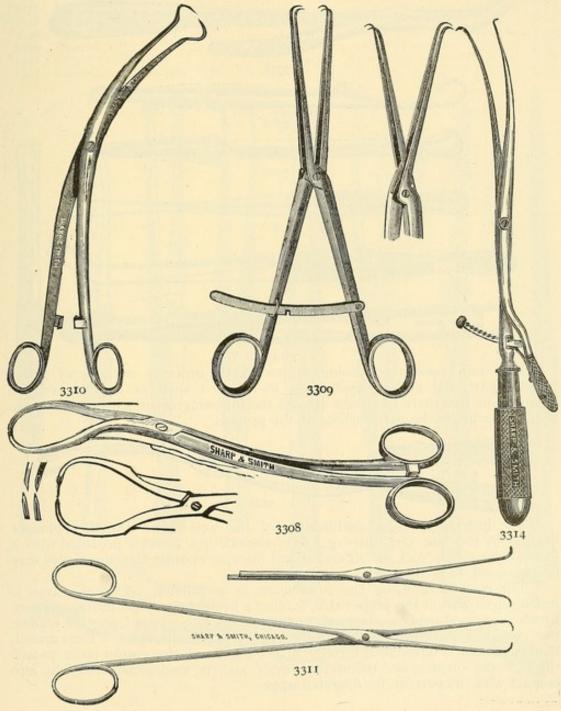
FIG. 3301	Sims' Uterine P	olypus Forcep	s			\$	3 00
3302	Luer's "						
*3303	McClintock's Ut	erine Polypus	Forcep	S			4 50
*3304	Daers	"					3 00
*3305	Heavy Straight	"	66		with	catch	2 75
*3306	Thomas'	" Applicating	y "				2 00
*3307	Wylie's	" Angle	"				2 50



3307 Instruments designated by a * are illustrated.

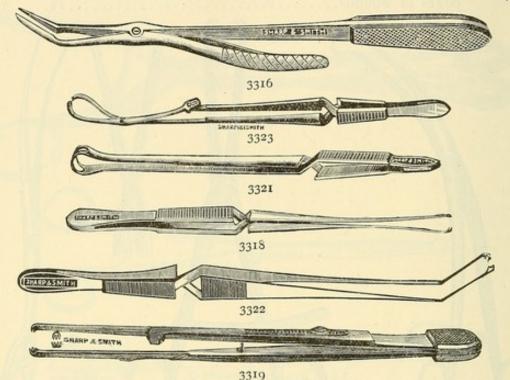
			A STATE OF THE PARTY OF THE PAR
CVN	ACCO!	OCICAI	-FORCEPS

FIG.		n									-		
	Currie's	Double	Canulated	Forceps		 	 	 	 		.\$	5	25
*3309	Byrnes'	Uterine	Tenaculum	1 "		 	 	 	 	 		4	50
*3310	Skenes'	"	"	"		 	 	 		 		2	25
*3311	Ball's		"			 	 	 	 	 		1	85
3312	Hanks'	"	"			 	 	 	 	 		2	25
	Nott's											2	25
*3314	Emmet's		"		for								
			is									3	75
3315			Tenaculum										
	edges	of wour	nds			 	 	 	 	 		3	75



GYNÆCOLOGICAL-FORCEPS.

FIG.											
*3316	Thomas' Shouldering Forceps		 		 				 	\$3	50
3317	Sponge Holding and Dressing Fo	rceps	 							2	00
	Langenbeck's Seizing	11									25
*3319	Sims' "	66	 					 	 	2	25
3320	Thomas' "	22									00
*3321	Self Grasping "									-	25
*3322	Byrnes' "										25
	and a second sec										35
		100									
3324	Dixon's Applicating and Dressing		 						 	4	50



In certain cases in gynæcological practice the ordinary methods of cleaning the part and making application to diseased surfaces have proved so troublesome that there has been devised the following described instrument, in order to facilitate the performance of the process.



The instrument is a modification of the well-known throat applicator devised by the late Dr. Ellsberg. It is essentially a forceps provided with a lock similar to the lock of an obstetrical forceps, in order that the blades may

be separated, to facilitate cleaning.

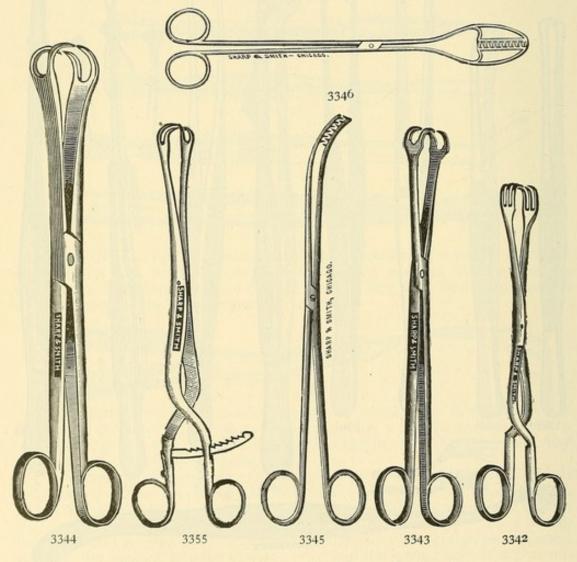
The method of using the instrument is as follows: A bit of cotton is rolled into a wad of the proper size, leaving a firmly twisted projecting portion, which is grasped between the teeth of the forceps without springing the blades; the cotton is then saturated with the appropriate medicament. Thus armed, the instrument is introduced through a speculum, and the cotton point passed through the ostincæ into the uterine cavity, and the medicament brought into contact with the parts to be operated upon.

C	7	71	N	A	7	C	0	T	0	1	C	T	0	A	T]	F	0	R	1	-	F	P	S	
u			N	$\boldsymbol{\Lambda}$	-	-	u		-	,	u		L.	α				U	\mathbf{r}	e.	-	_	-		١.

****		GYNÆ(COLOG	ICAL-F	ORCE	PS.	
FIG. *3325	Plain Tissue	Forcens str	ioht				\$1 50
*3326	11 11						
*3327	Agnew's "						
3328	Thomas' "						
*3329 3330	Sims' "	cur					
3331	11 11	" stra					
3332	Scott's "	"					
3333	Nott's "						
3334	Adjustable " Curved "	wit					
*3335 *3336	Curren					catch	
*3337	Emmet's Wir	e Twisting F	orceps				2 25
*3338	Nott's "		**				
*3339	Fitch's "		44				
*3340 *3341	Thomas' " Sims' "						-
3341	Emmet's "	Pressing					
334-	2						
3325	3326	3337	3341	3329	3327	3339	333S
	Charge Co.		- All			milli	

GYNÆCOLOGICAL-FORCEPS.

FIG			
*3342	Byford's Vulsellum	Forcepssmall \$2	25
*3343	"	"medium 2	50
*3344	"	"large 2	-
*3345	Musseaux' "	"	25
*3346	Byrnes' "	"	25
3347	Steele's "		00
3348	Jackson's "		00
3349	French's "	" 2	25
3350	Plain Regular "		70
3351		" 8 " 9 " " I	85
3352	" (with catch)	Vulsellum Forceps, 6 and 7 inch " I	85
3353		" " 8 " 9 " " 2	25
3354	" with ratchet	" " 7½ " " 2	25
*3355			65
3356			00
3357	Side Prong		85
3358	"		25

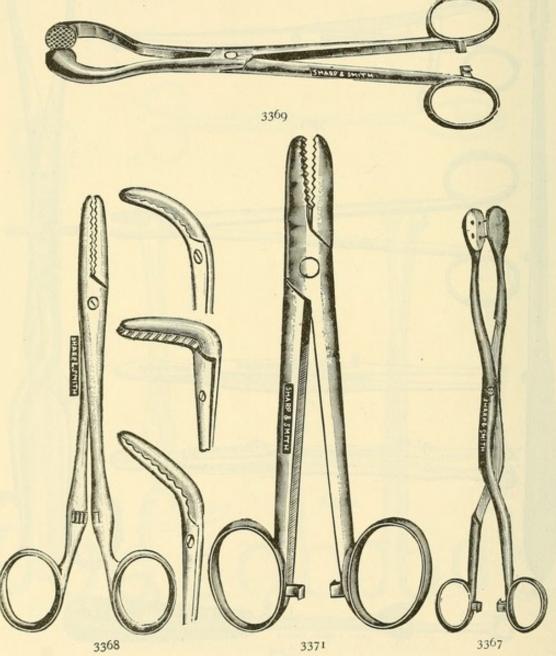


All instruments designated by a * are illustrated.

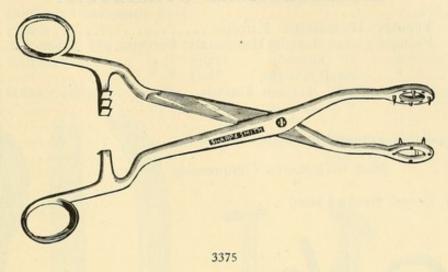
GYNÆCOLOGICAL—FORCEPS.	
3359 Campbell's Uterine Tumor Forceps. \$6 oo *3360 Greenhalgh's " " " 5 oo 3361 Nelaton's " " " 2 75 *3362 Tumor Forceps with Set Screw. 2 50 *3363 Byrne's Tumor Forceps with Ratchet 2 50 *3363-ASlide Catch Tumor Forceps. 3 25 *3364 Sims' Vulsellum Hook. 4 50 3364-AKuechenmeister's Vulsellum Hook 3 75 3365 Thomas' Speculum Forceps 2 00 *3366 Shot Compressing " 1 85	
3363	
3366 3366 3362	
3364-A 3364-A 3364-A 3364-A	

0	177 4	DIG	TON	/IV I	MCTD	UMENT	27
-	, v /	11/11		VI I I		LI IVI E. IVI I	

Spencer Wells' Pedi	icle Forceps	s, angular	 	 	
		straight			
	- 46	half curved	 		
	46	full "	 	 	
" " Sa	c "				
Sidney F. Wilcox's "					
	66				
Thompson's Vesico	Tumor Fore				
44 44					
Dr. C. M. Wilson's	44 4				



GYNÆCOLOGICAL-OVARIOTOMY.

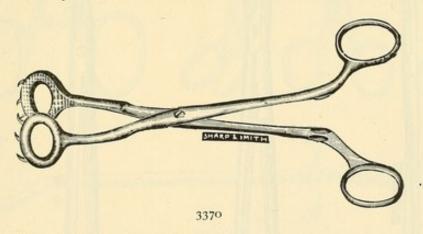


A NEW FORCEPS FOR CATCHING THE SAC IN THE OPERATION OF OVARIOTOMY.

By Sidney F. Wilcox, M. D., New York.

Having on many occasions noticed the difficulty experienced in catching the sac of an ovarian tumor, I devised the forceps represented in the cut, and they have proved in every way a success.

The difficulty usually experienced is that, when the sac is distended, it is difficult to catch hold of it with anything except a large vulsellum forceps, and afterward the sharp teeth are liable to tear a friable sac if traction is made.

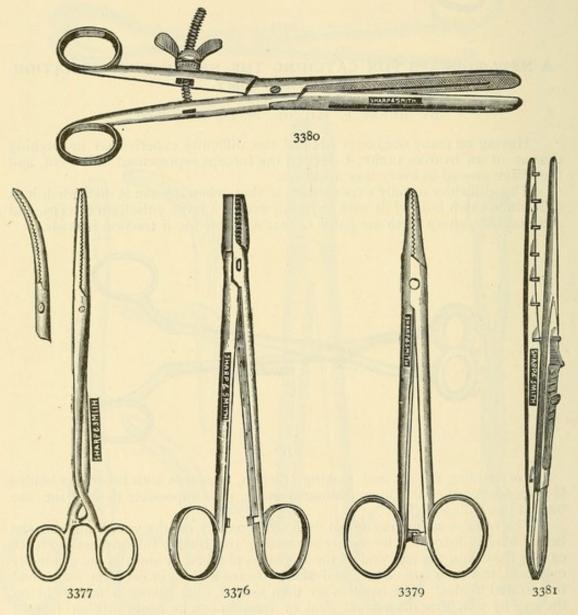


For holding the sac and making traction, a forceps with broad flat blades is necessary, but, with those ordinarily made, it is impossible to seize the sac until it has collapsed.

The forceps shown in the cut is a combination of the vulsellum and the broad bladed forceps. By widely separating the blades the projecting teeth can be fixed into the sac, and as the trocar is plunged in and the sac gradually collapses, the jaws are closed, and the walls are folded in between the broad fenestrated blades. The handles are then locked, thus giving a firm hold on the sac, by which means a great deal of traction can be made without fear of laceration.

GYNÆCOLOGICAL-OVARIOTOMY.

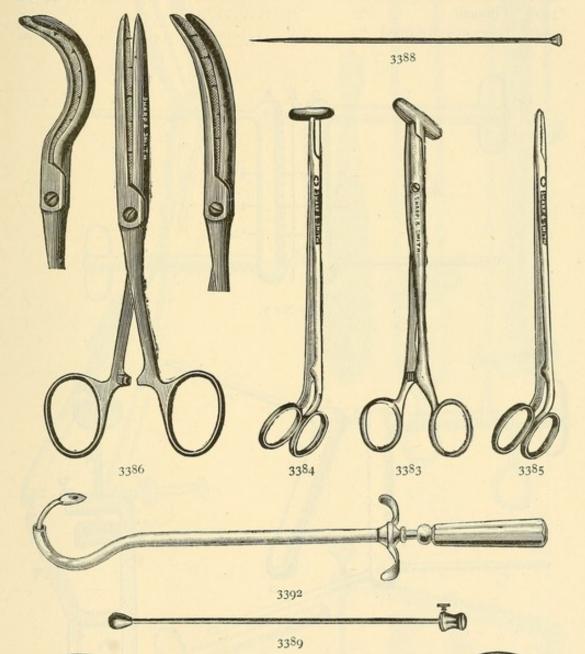
FIG.										
*3376	Thomas	s' Hæme	static F	orceps			 		S I	85
*3377					ic Forceps					50
*3377	"	66	curved,		"				2	50
3378	44		l straight		"				1	75
3378 *3379	Spencer	r Wells'	Torsion	Forceps.			 		3	00
*3380 *3381	46	44	Clamp						6	00
*3381	"	"	"	"			 		3	75
3382		Compress		"			 		1	50
*3383 *3384	Thornte	on's "		- 44			 		3	75
*3384	"]	Mod. by	Byford's	Compress	sion Force	ps	 		4	50
*3385	"	Heavy C	"	- 44	"		 		4	50
*3386	Peans'	Heavy C	lamp		"		 е	ach.	3	50



Instruments designated by a * are illustrated,

GYNÆCOLOGICAL-OVARIOTOMY.

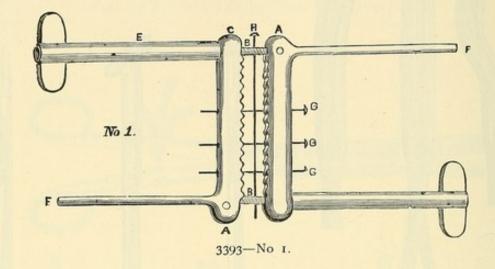
*3387	Dudley's	Ovariotomy	y Pins	each.	\$	75
*3388	Peck's	"	**			60
*3389	Wilcox's	44	"			50
3390	Kellogg's		"	Silverper doz.	2	00
3391		"	"	Gold "	3	00
	Hunter's	Pedicle N	eedle.		7	50

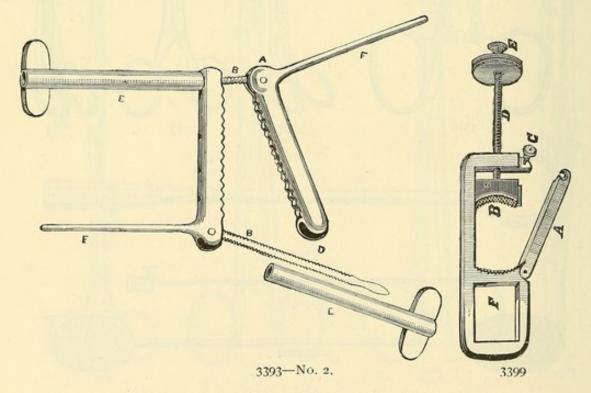


3387 Instruments designated by a * are illustrated.

GYNÆCOLOGICAL-OV	Α	R	\mathbf{IC}	T	O`	M	Υ.
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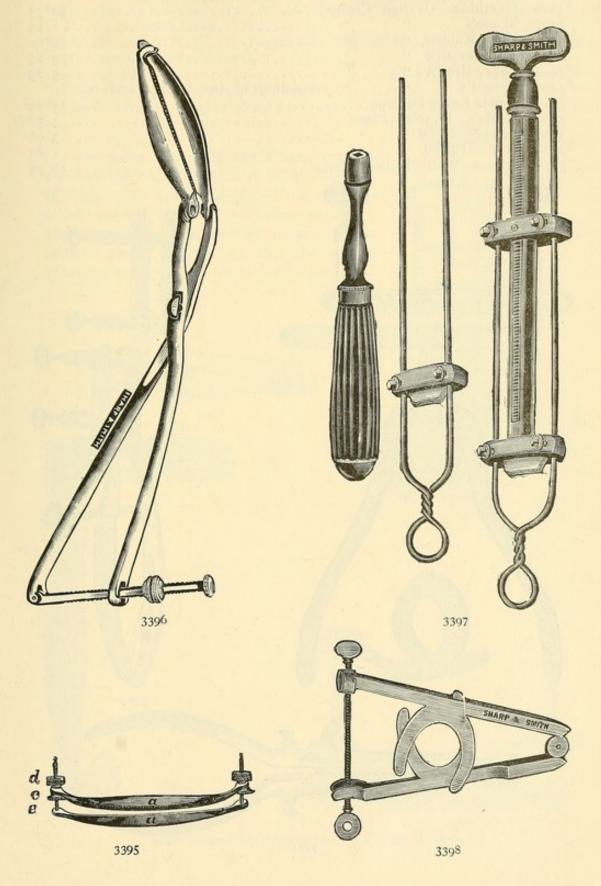
FIG.									
	Atlee's Ovariotomy								
	Nott's "								
*3395	Spencer Wells' Ova	riotomy	Clamp	 	 	 	 	 4	50
	Storer's							-	
	Tait's		**	 	 	 	 	 10	00
*3398	Thomas'	**	44	 	 	 	 	 3	35
*3399	Dawson's Modified	**	60	 	 	 	 	 6	00





All Instruments designated by a * are illustrated.

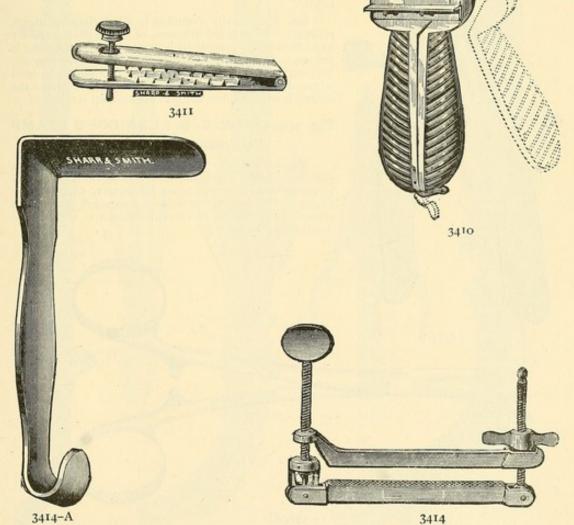
GYNÆCOLOGICAL-OVARIOTOMY.



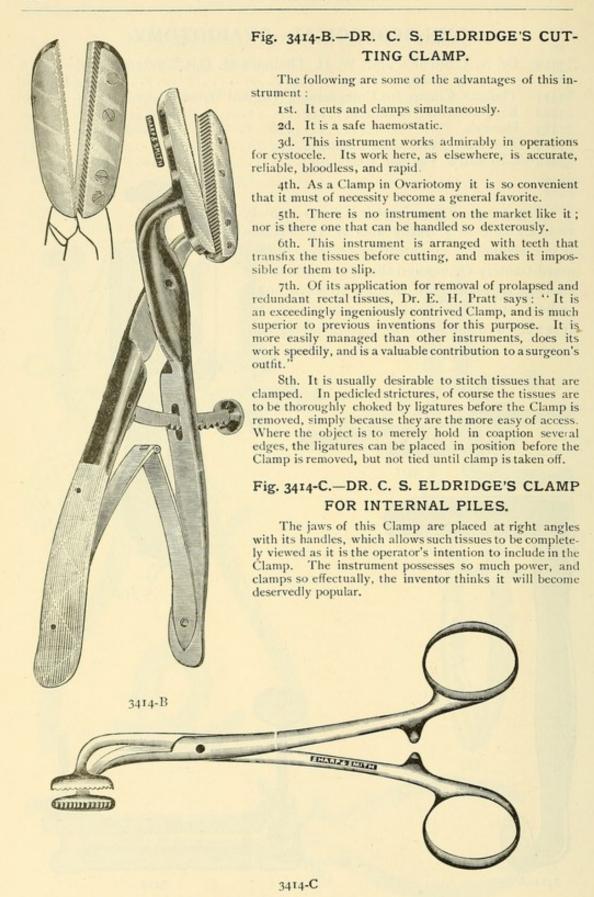
	GYNÆCOLO	GICAL-OVAR	HOTOMY.	
*3400 3401 3402 3403 *3404 *3405 3406 3407 3408 *3409	Gueride's Ovarian Cla Skene's " Hard Rubber " Noeggerath's " Baker Brown's " Byford's " pair Lever Forceps Wilde's Ovarian Clam Lewis' " " McLeod's " " Spencer Wells' Pedicle of	" consisting of	two Clamps and one	\$2 75 1 15 4 00 5 25 5 25 11 25 4 50 3 00 1 85 18 75
	3400			→
	3400		3405	0
	3409 SHARP& SMITH	3404	3405	

#3410 Dr. A. J. Skene's and W. H. Thallon's M. D.'s Cautery Ovariotomy Clamp. \$ 6 00 *3411 Thomas' Clamp, for Compressing Vaginal Wounds 6 00 3412 King's Scrotal Clamp 3 50 3413 Henry's 6 00 *3414 Thomas' Ovariotomy Clamp 4 50 *3414-A Byford's Vaginal Retractor 1 50

Fig. 3410.—This Cautery Clamp was devised by Drs. A. J. Skene and W. H. Thallon. It is essentially a combination of the old-fashioned Cautery Clamp and the Clamp which Dr. Dawson, of New York, devised to leave on the pedicle stump brought up into the wound. It is very well shown in the accompanying cut.



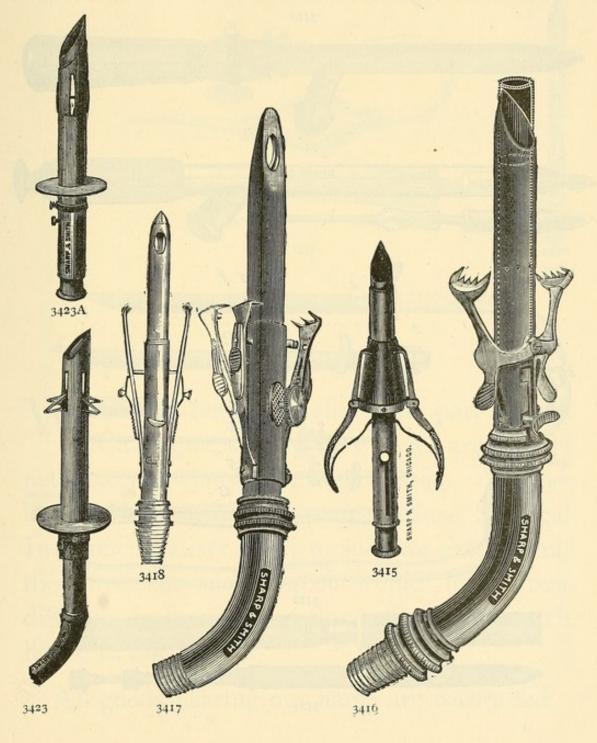
All instruments designated by a * are illustrated.



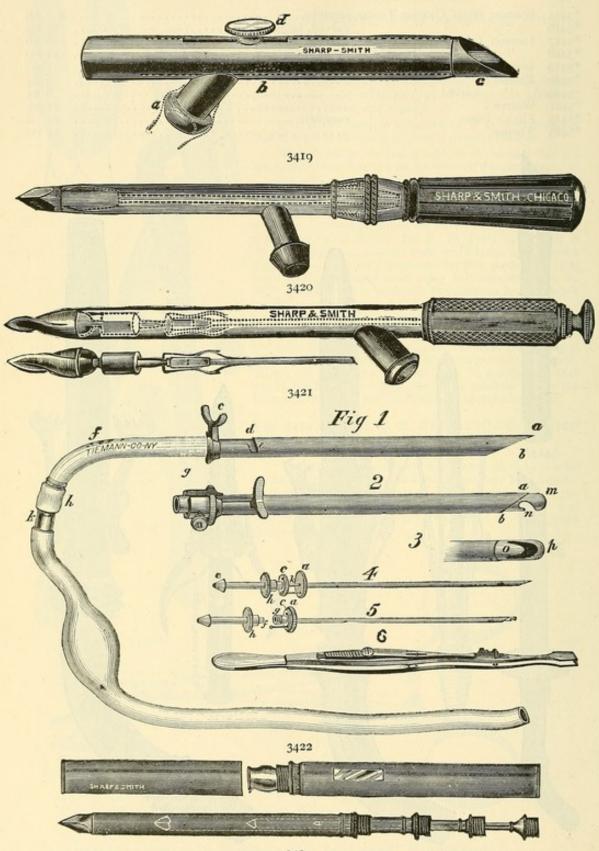
For other Instruments of Dr. Eldridge's, see "Supplement" at end of book.

GYNÆCOLOGICAL-OVARIOTOMY.

1	FIG.							
*3	415	Spencer	Wells'	Ovarian	Trocar,	straight \$	7 50)
*3	416	""		"	"	curved, large	15 00)
*3	417	Lawson	Tait's	- 11	***	curved	16 50)
*3	418		**	**		straight	12 00)
*3	419	Dunster'	S	**	**		5 00)
*3	420	Emmet's	5		**		3 25 8 25	5
3	420-	A "	curve	d "	**		8 25	5
*3	421	Warren's	5	**	**		11 25	5
*3	422	Fitch's I	Oome	44	44	complete	10 50)
*3	423	Thomas'		**	**		15 00)

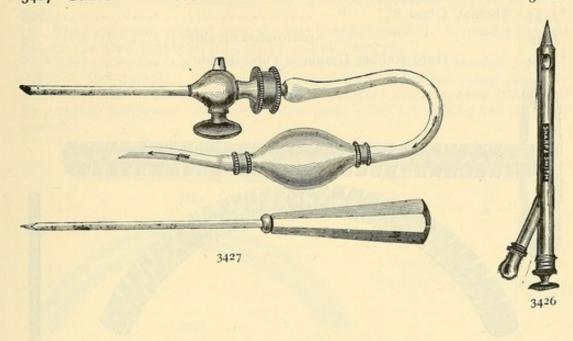


GYNÆCOLOGICAL-OVARIOTOMY.



GYNÆCOI	LOGICAL-O	VARIOTOMY.
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*3424	Set of 4 Nested	Trocars in	case	\$4 0	00
3425	" 3 "	"	"	3 5	50
*3426	Pean's Trocars			5 2	25
*3427	Flint's "				00

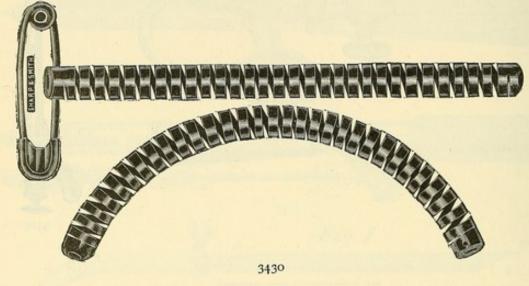


WE call attention to the front part of this Catalogue, stating that prices are strictly net, except where otherwise stated. We believe this to be the best plan, because Surgical Instrument Lists differ to such an extent that the physician and surgeon would have great difficulty in figuring out the net prices of each house in our line.

All goods bearing our name are warranted.

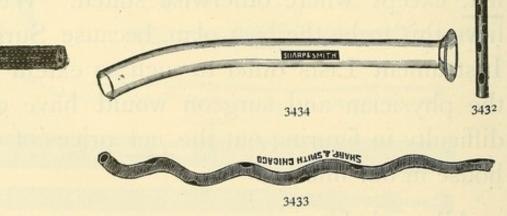
GYNÆCOLOGICAL-DRAINAGE TUBES.

*3430	Spicker's	Hard	Rubber	Spir	al Drainage	e Tube	s, small.	 	3	50
3431	"	"	**	**	"	"	large	 		75
*3432	Pure Silv	er Dra	ainage T	lube,	7 inches lo	ong		 		75
*3433	Rubber	(soft)	"	"	per yard			 		30
*3434	Thomas'	Glass	"	"		· · · · · ·		 		35
3435	"	"	"	**	perforated	on sid	les	 		85
*3436	"	Hard	Rubber	Drai	nage Tube	double	e	 	2	00



Regarding the above Drainage Tube we would state that hard rubber being a non-irritant, the drain is more complete than glass or soft rubber. They can be screwed into any wound, no matter how much curved the

wound is, and when removing the tube does not need to be drawn by force, but only needs to be twisted or turned to the left same as a screw. It can be easily cleaned, thereby aseptic, and can be used any number of times. We make them to order any length and thickness.



All instruments designated by a * are illustrated.

GYNÆCOLOGICAL-DRAINAGE TUBES.

FIG.										SET.
*3437 to 3445.	Dr. I). A. K.	Steele's	No.	I	Set o	f Drainage	Tubes	\$3	00
*3446 to 3451.	44	"	44	"	2	"	"	"		

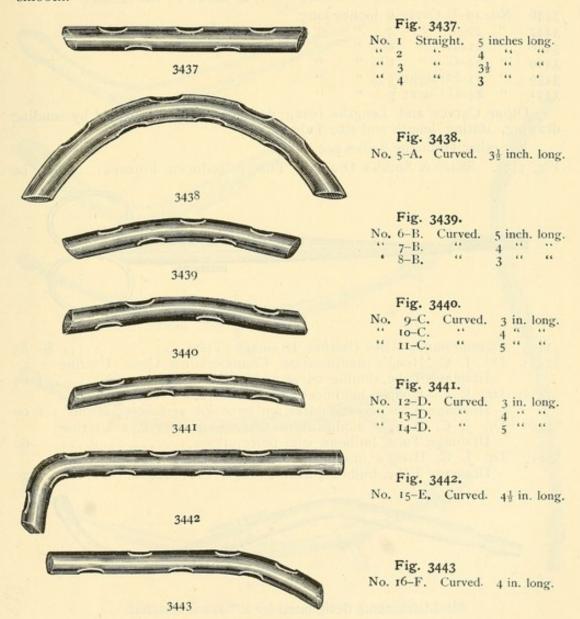
PROF. D. A. K. STEELE'S IMPROVED GLASS DRAINAGE TUBES.

We desire to call the attention of the medical profession to an Improved Glass Drainage Tube, manufactured by us at the suggestion of Prof. D. A. K. STEELE.

They are manufactured from the best double annealed imported glass and

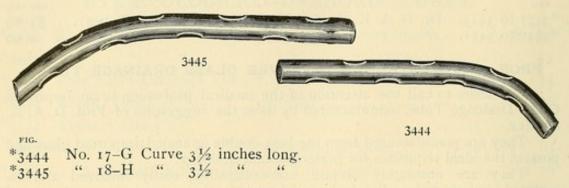
possess the ideal requisites for perfect wound drainage.

They are absolutely aseptic, non-collapsible, easily removed and reinserted, and durable. We feel confident that they possess many points of superiority over rubber or bone drainage tubes, that will be readily recognized by practical surgeons. The apertures in these tubes are oblong and perfectly smooth.



*3457

GYNÆCOLOGICAL-DRAINAGE TUBES.



SET No. 2.

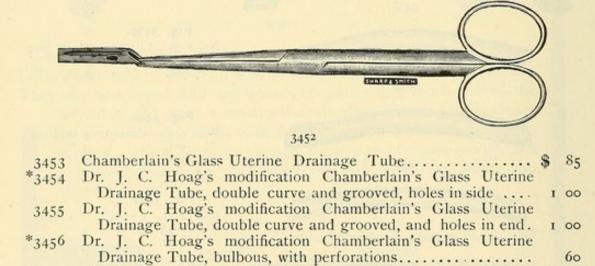
3/8 inch Tubing consisting of Nos. 19 to 24 inclusive. Curves correspond with Set No. 1, as shown by the Letters.

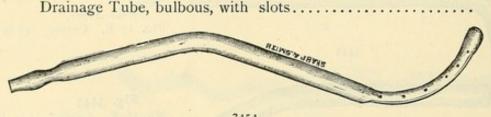
3446 No. 19-B Curve 6 inches long.
3447 " 20-D " 7 " "
3448 " 21-E " 6 " "
3449 " 22-G " 6½" "
3450 " 23 Straight 5½ " "
3451 " 24-C Curve 7 " "

Other Curves and Lengths being desired, can be furnished by sending drawing, stating length and size Tubing.

For other Drainage Tubes see index.

Fig. 3452. Sharp & Smith's Drainage Tube Introducing Forceps..... \$2 00





Dr. J. C. Hoag's modification Chamberlain's Glass Uterine

75

3454

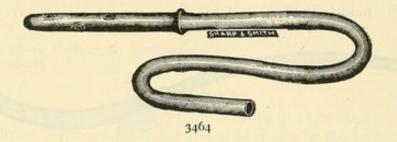
All Instruments designated by a * are illustrated.

	GYNÆCOLOGICAL-DOUCHE TUBES.	
*3458	Bozeman's Uterine Douche Tube	\$1 75
*3459	Kelly's Modification of Bozeman's Uterine Douche Tube	3 50
*3460	Jennison's Uterine Douche Tube	
3461 *3462	" (Wigmore's)" " with Syringe	
*3463	" modified " " "	
5	SHARESHIEF .	
	2458	
ERT	3458	enanta.
63		
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	BALARESTHILL	-
	3456	M
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	19 Junior	
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	AMAGESUMILES	M
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Serious .		
	SMARP. A. SMIZE	SUVR9
	3462	HINTERNES
2		
-		
		9)
	GRAPP SMITH	
	3463	3459

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL.

*3464	Dr. Wm. S. Gardner's Tube for Intra-Uterine Irrigation\$	2 50
0	Dr. W. Thornton Parker's Soft Rubber Velvet-Eyed Tube for	BHE.
	Injecting and Measuring the Uterus	1 25
*3466	Bozeman's Utero-Vesico-Urethral Drainage Support with Urinal	9 00



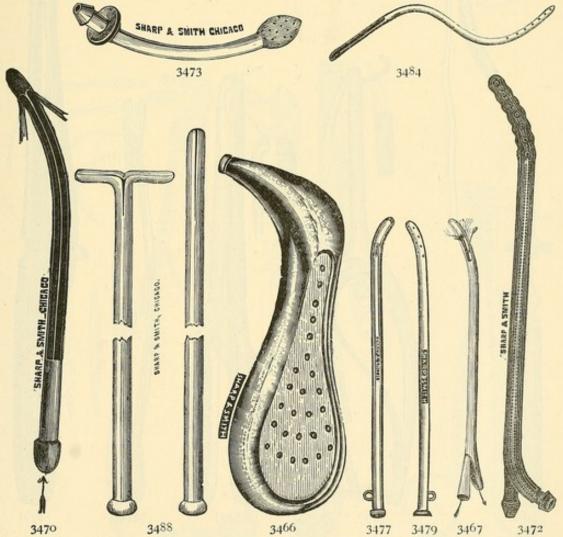
PUERPERAL SAPRÆMIA AND A METHOD OF INTRA-UTERINE IRRIGATION.

Fig. 3464. For giving vaginal injections a syringe, made on the pattern of a Davidson, with hard rubber finishings, is used. For intra-uterine injections the same syringe, with a soft rubber intra-uterine injection tube, is used. This tube is twelve inches long and seventeen (American) caliber. The point is round, smooth, and closed. Three inches from the point is a slightly raised collar. Between the point and collar, but grouped rather toward the point, are three large lateral velvet-eyed openings. The whole instrument is perfectly smooth and flexible; there is not a rough edge or corner that can scratch the most delicate surface. The smallest nozzle of the syringe being on, the open end of the tube is slipped over it. The syringe and tube are then filled with corrosive sublimate solution, and the tube is introduced into the uterus by grasping the point between the index and middle fingers of the right hand, allowing the remainder of the tube to rest in the palm of the hand; then carry the tube between the fingers up to the external os; reflect the point into the cervical canal; grasp the middle of the instrument between the thumb and the finger of the left hand, and gently push it in until the collar is felt just at the external os. You then know that the end of the tube is well into the cavity of the uterus, and still a safe distance from the fundus. There is some danger from introducing even the softest instrument too far into the puerperal uterus. The solution is then forced into the uterus until it returns clear. About a quart is the quantity usually used, though as much as a gallon is sometimes necessary. The nozzle of the syringe is slipped out of the tube, the latter being left in place to assist in the exit of all the injected fluid. When the tube comes out of itself, it is placed in a solution of corrosive sublimate, 1-2000, until wanted.



GYNÆCOLOGICAL.

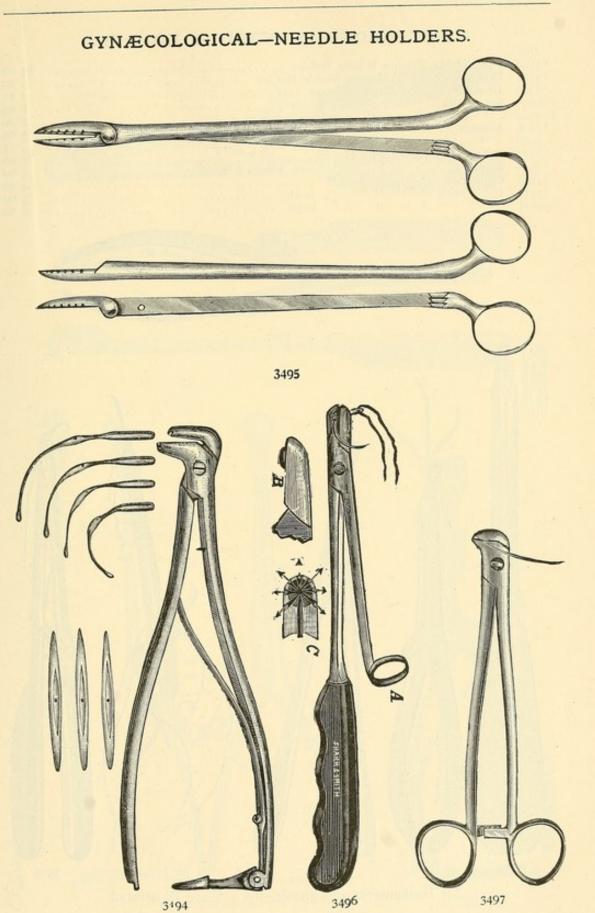
Page.			
*3467	Nott's Double Current Catheter, silver	\$2	75
3468	" " plated		75
3469	Reliquet's Double Current Catheter		50
*3470	Skene's Reflux Catheter, metal		75
3471	" " hard rubber		75
*3472	" Double Perforated Catheter	1	75
*3473	" Goodman's Self-Retaining Catheter	-	65
3474	Byrne's Reflux Catheter, silver		85
	" " rubber		
3475		3	00
3476	" Catheter Adjuster	1	50
*3477	Silver Female Catheter		65
3478	Plated " "		40
*3479	" " small holes	1	50
3480	Jointed " "		75
3481	Hard Rubber Female Catheter		65
3482	Leavitt's Soft Rubber Female Catheter		40
3483	Flexible Metal Female Catheter		50
*3484	Sims' Sigmoid " " silver	T	25
3485	" " plated	-	75
3486	" " hard rubber		50
3487	" Improved Sigmoid Female Catheter		40
	Dougas's Calf Data Line Coft Dubber Cotton	1	75
*3488	Dowse's Self-Retaining Soft Rubber Catheter \$1 00 to	1	25



Instruments designated by a * are illustrated.

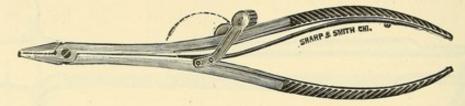
	GYN.	ÆCOI	OGIC.	AL-I	NEED	LE	HOLDE	ERS.		
*3489	Bozeman's	s Spiral	Needle	Carrie	r				. \$ 3	7:
*3490	Ady's Ute									
*3491	Ethridge's									75
*3492	Dr. A. J. S	kene's	Uterine :	Needle	Holde	r			. 5	50
*3493	Tiemann		"	"	**				4	50
*3494	Thiersch's		"	"	**		Spindles.			50
*3495	Abbe's Me									00
*3496	Hanks' U									00
*3497	Fowler's	"	44	"						00
3498	Thomas'	**	46	"						50
3499	Wyeth's		"	"			• • • • • • •		3	40
3489		34			349	G.TIEMANN & CO.	3492		TI III	

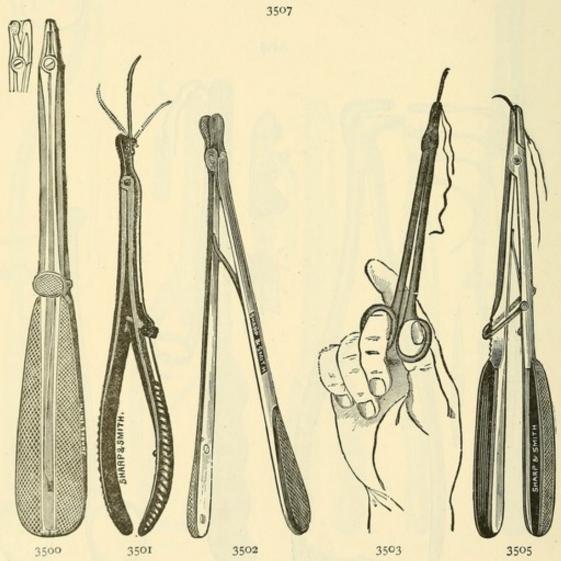
All instruments designated by a * are illustrated.



GYNÆCOLOGICAL-NEEDLE HOLDERS.

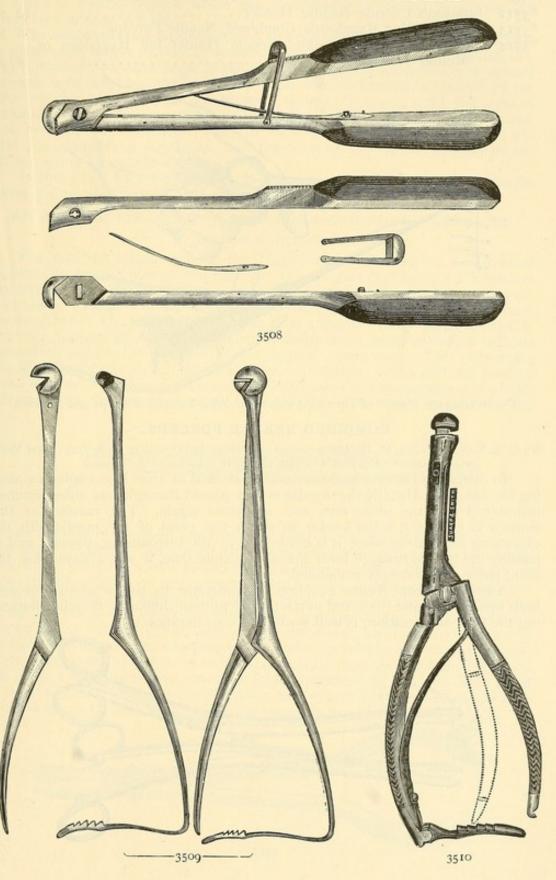
	P.D.C.							
	*3500	Philadelphia	Uteri	ne Need	le H	der	 \$4 00	,
	*3501	Fritche's or	(Paris) Uterine	Nee	le Holder	 3 50)
	*3502	Emmet's U	terine	Needle	Hold		 2 25	;
1	*3503	Sims' plain	-64	**	**		 1 85	5
1	3504	" catch	**	"	44		 2 00)
-	*3505	Russian		44)
i	3506	" Imp	roved	Uterine	Nee	e Holder	 3 25	;
	*3507	Reiner's Ut	erine 1	Needle I	Iolde		 3 00	,
-	*3508	Fowler's	**	14	**	with Russian handle)
	*3500	Gibbon's	4.6	4.6	4.6			,
Ġ		Hagedorn's	66	**	4.6	mall		
	3511		4.6	14	**	arge		





All Instruments designated by a * are illustrated.

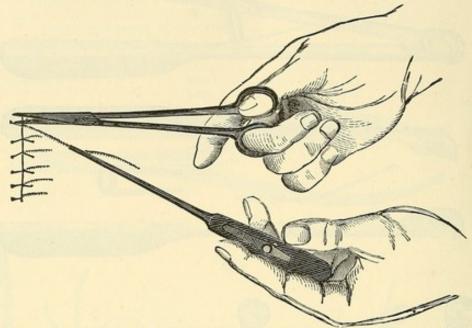
GYNÆCOLOGICAL-NEEDLE HOLDERS.



Round Needles.....

*3512 *3513

*3514



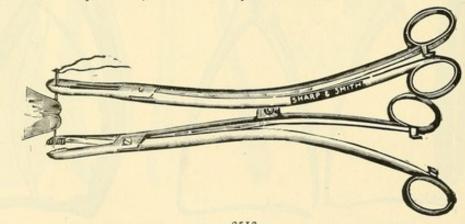
Cut showing the Manner of Operating with Sims' Wire Twisting Forceps and Scissors.

COMBINED NEEDLE FORCEPS.

By C. A. Von Ramdohr, M. D., Instructor in Gynæcology and Operative Midwifery, New York; Post Graduate Medical School.

In operating for lacerated cervix a great deal of time is occupied in passing the sutures. Usually the needle is first passed through one lip, extracted, introduced into the other one, and extracted again. The reason for this manœuver is that it is the harder to catch the point of the needle with the extracting forceps the more it is embedded in the surrounding tissues; and in passing the needle through both lips at the same time, it will always leave the point more or less deeply embedded.

Any simple contrivance enabling the operator to pass a needle through both lips at the same time, and extracting it without difficulty, thereby shortening the time of operation, is well worthy of consideration.



The combined needle forceps answers such a purpose. It consists of a pair of needle forceps which may be united or separated by a pivot and notch lock at their middle.

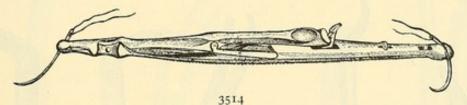
The *modus operandi* is as follows: A straight needle (Pallen's trocar pointed by preference, longer or shorter according to the thickness of the denuded cervix) is clasped at a right angle in the right hand (pivot) forceps. It is pushed through both lips, then the open left hand forceps (notch) is hooked on the pivot and the open branches are pressed against the cervix until the point of the needle lies, as it always must lie, according to the construction of the forceps, between the branches. The left hand forceps is then closed and the right one opened and withdrawn, and the point of the needle grasped by the left forceps is extracted.

In this way I have been able to pass four sutures in a unilateral laceration inside of four minutes, certainly not very slow time.

AN ASEPTIC HOLDER FOR HAGEDORN AND ROUND NEEDLES.

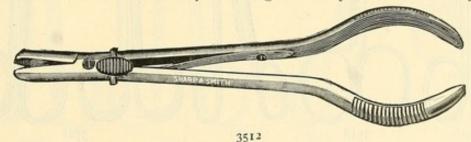
BY WILLIAM K. OTIS, M. D.

The manifest advantages of the Hagedorn needle and its very general adoption by American surgeons, together with the fact that most of the holders adapted for its use are both cumbersome and difficult to clean, led me, a year or two since, to modify probably the most popular holder ever invented for round needles (that of Dr. Henry B. Sands) in such a manner as to render it capable of firmly holding flat needles, and also of being more easily cleansed, without eliminating any essential feature of the original instrument. This instrument is easily understood by a reference to the illustration. The end for holding round needles is unchanged, except that it is placed at the opposite end of the instrument to that which it originally occupied. The end adapted for flat



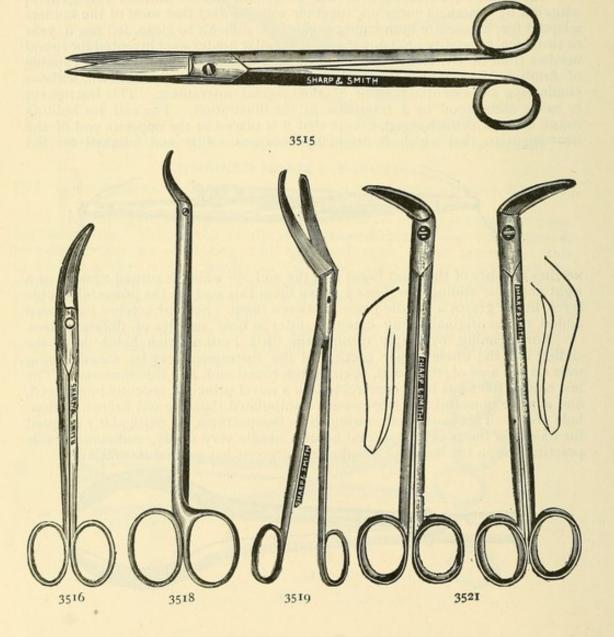
needles consists of the solid lower bar, the end of which is turned upward at a right angle; a sliding bar forced down upon this end by the powerful double lever, firmly grasps a needle placed between them. Several notches have been added to the original spring catch, in order to hold needles of different sizes.

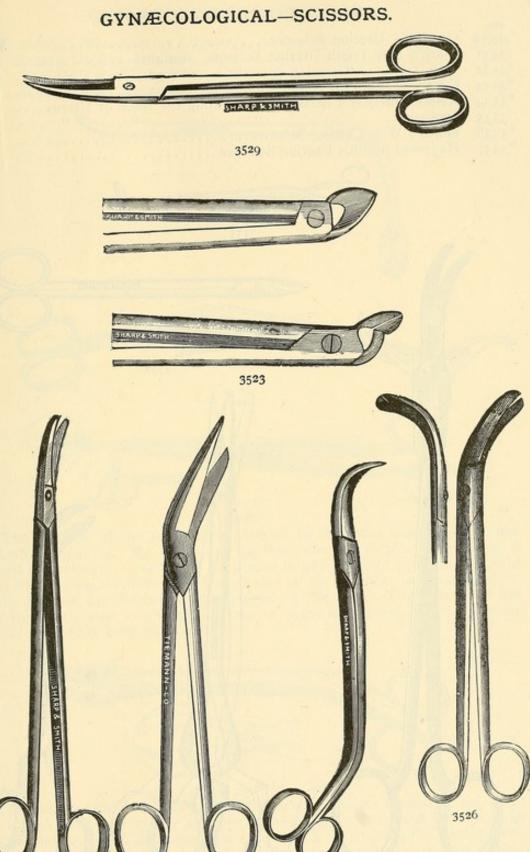
For cleaning, by simply turning the little button which holds down the sliding bar, the whole upper portion of the instrument may be raised, swung over on the axis of the joint, opening the round end, and disconnected. The last named joint has been constructed on a novel principle, recently introduced, and is more powerful and more easily manipulated than the old French button-hole joint. This instrument, owing to its compactness, is particularly adapted for its use in the pocket case, and holds a needle very firmly, and considerable practical use in the hands of competent surgeons has proved its efficiency.



GYNÆCOLOGICAL-SCISSORS.

FIG.		
*3515	Sims' Straight Uterine Scissors, sharp or blunt	\$2 00
*3516	" Curved on Flat Uterine Scissors	2 50
3517	" Angular " "	3 00
*3518	Emmet's Full Curve " R. or Leach.	3 25
*3519	" Half " " " ""	3 25
3520	" Angular " " ""	3 25
*3521	" Lesser Curve " ""	3 00
3522	" Wire Cutting " ""	3 35
*3523	Pallen's (A and B) " ""	3 75
*3524	Bozeman's Angular " ""	2 50
*3525	" Curved Down Handles, Uterine Scissors "	3 25
*3526	" Right and Left " " "	3 35
3527	Byford's Sharp Point Uterine Scissors	3 25
*3528	" Blunt " " "	3 25
*3529	Jenks' Perineum " "	3 00

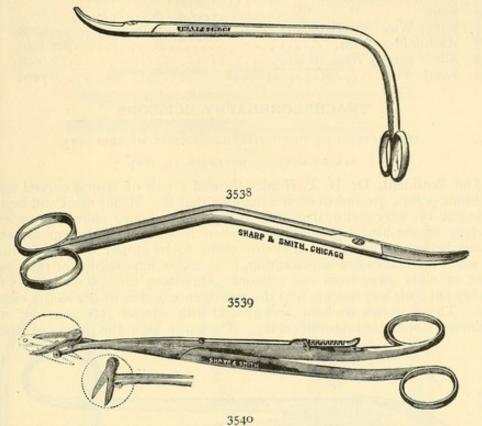




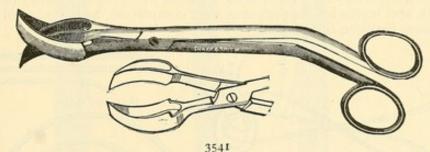
*353° 3531 *3532 *3533 *3534 3535 *3536 *3537	Goodell's Uterine S Clark's Saw Tooth U " " " Cervix Scissors for A Keuchenmeister's Sc Dawson's	COLOGICAL—SCISSO decissors	\$3 25 \$3 75 \$4 50 \$5 00 \$6 of Uterus
3337	6	3533	AMZ STUDIO
		3536	
			NIMES AND ASSESSMENT OF THE PARTY OF THE PAR
			SHARP A SHITH

GYNÆCOLOGICAL-SCISSORS.

FILM		
*3538	Wilson's Wire Cutting Scissors	\$3 25
*3539	Pratt's Uterine Scissors	3 00
*3540	T. & Co.'s Revolving Blade Uterine Scissors.	
*3541	Skene's (new) Hawk Bill " "	7 50



The rotation of the blades is produced by the index finger of the same hand which operates. By depressing the lever near the handles and sliding it forward or backward, the scissors are placed in any required position, and held firmly by allowing the lever to snap into one of the notches; in the same manner the position can be constantly changed at pleasure. The instrument has been frequently used with much success in many operations where no other scissors could have been employed.



The parts of these scissors are made to seize the angle formed by the junction of the two flaps as far as appears necessary. The flaps are brought together by the aid of the forceps on each side, so as to bring the tissues more within the grasp of the scissors. The blades of the scissors are then closed, and a strip is removed from above downward on each flap.

GYNÆCOLOGICAL-NEEDLES.

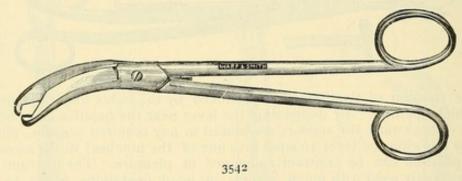
FIG.			
	Dr. H. T. Hanks' Trachelorrhaphy Scissors		
*3543	Emmet's Cervix Needlesper doz.	I	00
*3544	Sims' " " "		25
*3545	Emmet's Perineum " "	1	00
*3546	Sims' " " "		25
*3547	Silver Wire Needleseach.		20
3548	Aluminium Wireper foot.		45
3549	Silver (pure) Wire all sizes " coil.		35
3550	Lead Wire "yard.		25

TRACHELORRHAPHY SCISSORS.

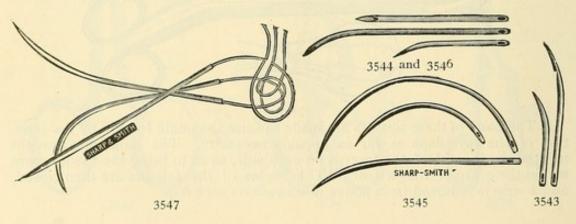
TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF NEW YORK.

STATED MEETING, NOVEMBER 15, 1887.

The President, Dr. H. T. Hanks, showed a pair of strong curved scissors with blunt points, ground in such a manner that the blades meet and begin to cut first at the very end or distal extremity. The figure shows quite clearly the edges of the blades ground so that there is an elongated diamond shaped opening between them when they are about to be closed. It will be noticed that, when the blades are approaching, it is quite impossible for the tissue to retract or slide away from the scissors. On using these scissors, it is found that they cut their way quickly into the most dense and most decidedly cicatrical tissue. These shown are bent and ground with special reference for use in Dr. Emmet's operation on the cervix. They will take the place of the very

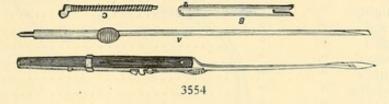


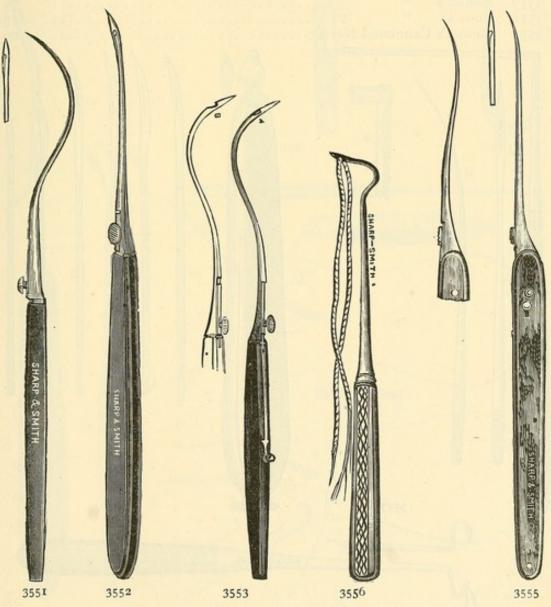
excellent tenaculum-pointed scissors of Dr. Dawson. The instrument here shown cuts with even less effort, does its work more exactly than the Dawson instrument, and leaves less unevenness after completion, as it is sure of cutting all the tissues between the blades.



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FIG.					
*3551	Rivedon's	Perineum	Needle,	full curved\$3 50	o
*3552	- 14	44	**	half curved 3 5	0
*3553		- 66	44	" (modified by Keyes) 7 o	0
*3554	**	"	**	straight(")	0
*3555	**	"	44.	in folding shell handle 3 7	5
*3556	Whitehead	's Helical	**	I 3	0



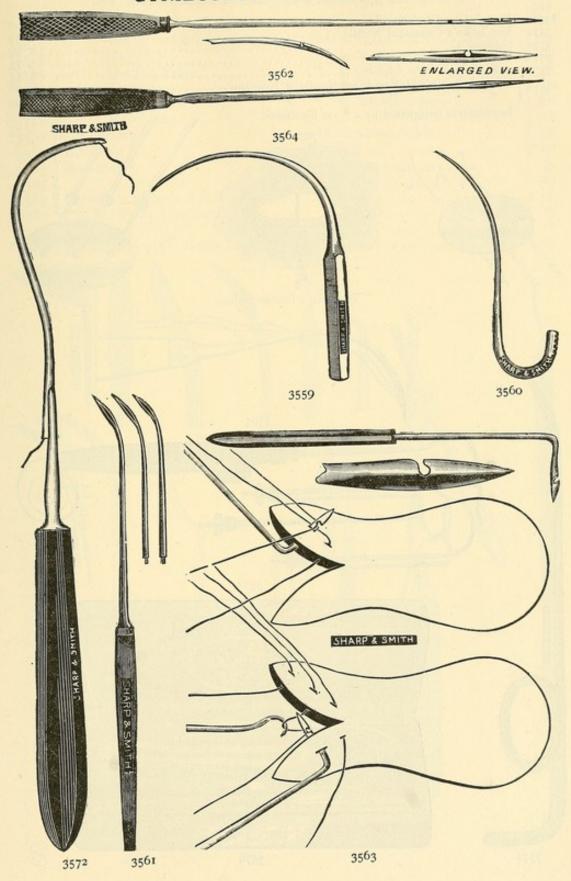


Instruments designated by a * are illustrated.

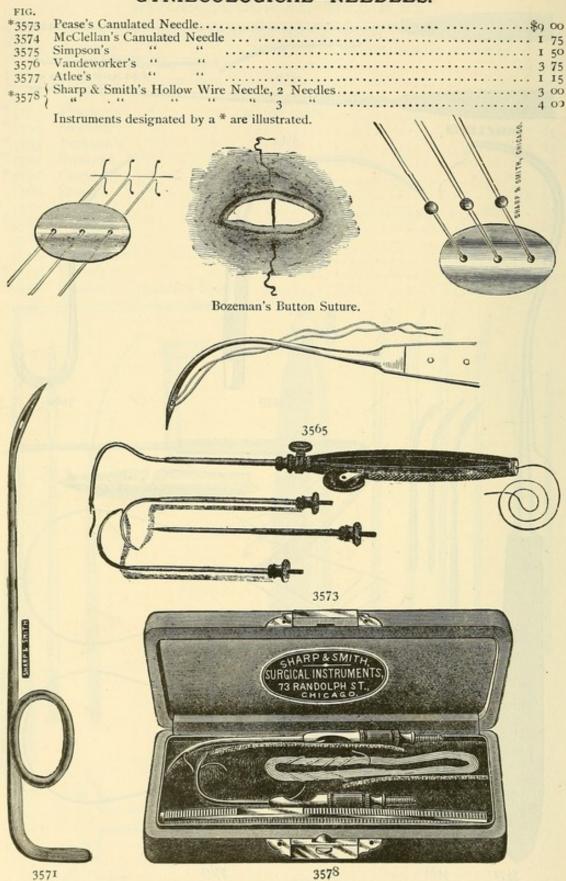
G	VN	JÆ	CO	LC	OGI	CA	L-I	NE	ED	LES.
~	-	14-	-							

#3557 Agnew's Perineum Needle and Needle Holder		GYNÆCOLOGICAL—NEEDLES.		
*3558 Parker's " set of six in handle, handle serves as a case for the needles. 3 75 *3559 Wilson's Perineum Needle. 1 00 *3560 " " right or left. each 1 50 *3561 Skene's " set of three. 2 25 *3562 Skene's " " 1 25 *3563 Jackson's " 2 25 *3565 Curved " 55 *3565 Stone's " " 1 50 *3566 Stone's " " 1 50 *3567 Thomas" " 4 00z. 75 *3568 Papine's " 4 00z. 75 *3571 Knox's " 75 *3571 Emmet's Canulated Needle. 2 00		Agnew's Perineum Needle and Needle Holder set \$	2	10
a case for the needles. 3 75 *3559 Wilson's Perineum Needle. 1 50 *3561 Peaslee's " right or left each 1 50 *3561 Peaslee's " set of three 2 25 *3562 Skene's " 1 25 *3563 Jackson's " 2 25 *3565 Curved " 55 *3566 Stone's " 1 50 *3567 Thomas' " doz. 75 *3569 Goodell's " 55 *3570 Ashton's " 75 *3571 Knox's " 75 *3572 Emmet's Canulated Needle. 2 00	*3558	Parker's " set of six in handle, handle serves as	3	40
*3559 Wilson's Perineum Needle. 1 00 *3560 " " " right or left each 1 50 *3561 Peaslee's " set of three 2 2 25 *3562 Skene's " 2 2 25 *3563 Jackson's " 2 25 *3565 Curved " " 55 *3565 Curved " " 55 *3566 Stone's " 3566 Stone's " 3567 Thomas' " 4002. 75 *3568 Papine's " 3569 Goodell's " 55 *3570 Ashton's " 3571 Knox's " 75 *3571 Emmet's Canulated Needle. 2 2 00	333	a case for the needles	3	75
*3560 " " right or left each 1 50 *3561 Peaslee's " set of three 2 25 *3562 Skene's " 1 25 *3563 Jackson's " 2 25 *3563 Jackson's " 55 *3564 Straight " 55 *3565 Stone's " 1 50 *3567 Thomas' " 400z. 75 *3569 Goodell's " 55 *3570 Ashton's " 55 *3571 Knox's " 75 *3572 Emmet's Canulated Needle. 2 00	*3550			
*3361 - Peaslee's " " set of three	*3560			
*3562 Skene's " " 2 25 *3563 Jackson's " " 2 25 *3564 Straight " " 55 *3565 Curved " " 55 *3565 Stone's " 1 50 *3567 Thomas' " " doz. 75 *3568 Papine's " 55 *3570 Ashton's " 25 *3571 Knox's " 75 *3572 Emmet's Canulated Needle. 2 00	*3561 -	Peaslee's " set of three		
*3563 Jackson's " " 2 25 *3564 Straight " " 555 *3565 Curved " " 55 *3565 Stone's " " doz. 75 *3568 Papine's " " 65 *3569 Goodell's " " 25 *3570 Ashton's " " 75 *3571 Emmet's Canulated Needle. 2 00	*3562	Skene's " "	I	
*3564 Straight " " 55 *3565 Curved " 55 *3565 Stone's "	*3563		2	
3560 Stone's " " doz. 75 3567 Thomas' " " doz. 65 3569 Goodell's " " 25 3570 Ashton's " " 75 3571 Knox's " " 75 3572 Emmet's Canulated Needle. 200	*3564	Straight " "		
3560 Stone's " " doz. 75 3567 Thomas' " " doz. 65 3569 Goodell's " " 25 3570 Ashton's " " 75 3571 Knox's " " 75 3572 Emmet's Canulated Needle. 200	*3565	Curved		
3570 Ashton's " " 75 3571 Knox's " " 75 3572 Emmet's Canulated Needle 2 00	. 3566	500110.5	1	
3570 Ashton's " " 75 3571 Knox's " " 75 3572 Emmet's Canulated Needle 2 00	3567	Thomas		75
3570 Ashton's " " 75 3571 Knox's " " 75 3572 Emmet's Canulated Needle 2 00	*3568	1 11 11 11 11 11 11 11 11 11 11 11 11 1		
*3571 Knox's " 75 *3572 Emmet's Canulated Needle. 2 00	3569			
*3572 Emmet's Canulated Needle. 2 00	3570			
3557 3558	*3571	KIIOAS		
3557 3558	*3572	Emmet's Canulated Needle	2	00
		3557 3558		

GYNÆCOLOGICAL-NEEDLES.



GYNÆCOLOGICAL-NEEDLES.



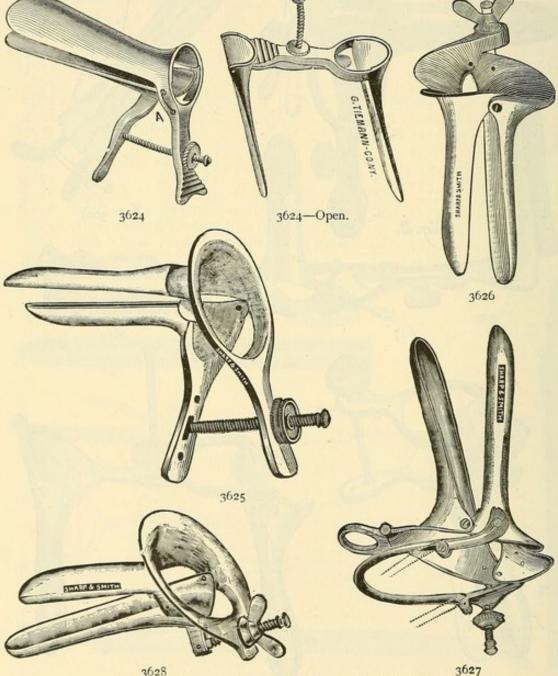
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*3579 *3579 *3579 *3579 *3579 *3579 *3580 *3581 3582 3583 3584 3585 3586 3587 *3588	" Angular " Double " Scalpel " Bent Do " Revolvin " Latest Emmet's Bozeman's	Edge own ng ular cus Knife Uterine F	terine Kni " " " " " " " " " " " " " " " " " " "	fe No. 1 " 3 " 4, cur " 5 " 6, dou 4 blades ar	ved or flat ible edge	each	1 10 1 10 1 25 1 35 1 10 1 50 3 25 7 50 5 00 1 25 1 25 4 50 1 25 7 75
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3589	Barker's U Buttles'	terine "	Scarin	Spoor	Doint					25
*3590	buttles	"	"	Spear with U	Point				I	00
3591			"					• • • • • • • • • • • • • • • • • • • •	I	50
3592	Chapman's		* **					• • • • • • • • •	I	10
3593	NI-ss2-	"							2	00
3594	Nott's	66	"							75
3595	Peaslee's	44								50
3596	Storer's	**	**							50
*3597	Skene's	"	"						4	50
3598	Cutter's									
3599	White's H								9	00
*3600	Simpson's								5	00
*3001	Stohlman'	S "						• • • • • • • • • •	5	7
3602	Peaslee's								5	00
*3603	Peaslee's	Uterot							3	25
3604		0 16 6							5	00
3605	Edwards'				Caustic				2	25
3606	Byford's I		Cup	"	"	"			2	50
*3607		Silver		"	"	"			I	50
3608	Earle's Jo				"	"		· · · · · · · · ·	I	85
3609	Gardner's			"	"	"			2	-
3610	Sims'			"	"	"			I	75
3611	Emmet's								I	75
*3612	Lente's Pl	latina (cup to	r Caustic	S		• • • • • • •		2	-0
*3613	Alum Pen									25
3614	Blue Vitri									25
3615	Chloride o									25
3616	Nitrate of	Silver			• • • • • •			\$1 00		
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	GYNÆCOLOGICAL—SPECULA.	
*3617 *3618	Graves' Vaginal Speculum	
*3619 3620 *3621	Cuscoe's Vaginal Speculum)
	Fig. 1.	
	3621 Fig. 2. SPAR? R SHITM, CHICAGO. 3619	
		,
	3618	

GYNÆCOLOGICAL—SPECULA. FIG. Cuscoe's Vaginal Speculum (modified by Ludlam).....\$ 3 00 3622 Figs. 3619, 3620, 3622 and 3623 have folding handles, and are convenient for carrying in the pocket. Thomas' Modification of Cuscoe's Vaginal Speculum...... 3623 *3624 *3625 Storer's Vaginal Speculum..... McNutt's (Dr. McNutt of San Francisco) *3626 *3627 Taylor's Howard's 2 50 *3628 Higbee's



3628 Instruments designated by a * are illustrated.

GYNÆCOLOGICAL-SPECULA.

GYNÆCOLOGICAL—SPECULA.										
*3629	Sime'	Vaccinal	Speculum	(made in	five cize	c)		each 9	21 50	
3630	"	v aginai	Speculum "	hard rub	her	5)		. cach ,	2 25	
*3631	**	66	"	wire					1 50	
*3632	"	66	"	with han	dle				2 25	
3633	44	44	44						1 50	
*3634	66	66	**	folding					4 00	
*3635	"	66	66	modified	by Emn	net			7 50	
*3636	**	44	"	"	" Daw	son			4 50	
3637	**	66	"	"	" Hep	burn			2 50	
*3638	44	66	44	"	" Mun	de			3 00	
	an									
	ETTILE 3	635					3629			
	SHF	ARP&SMITH				25:11	3638			
					3	3634				
	3632	Hatter Valletin				ARP ASMITH				

GYNÆCOLOGICAL-SPECULA.

GYNÆCOLOGICAL—SPECULA.
*3639 Nott's Vaginal Speculum, three blades. \$2 50 *3640 Nelson's " 2 50 3641 Palmer's " three blades. 3 00 3642 " " two " 3 00 *3643 Jackson's " 3 00 *3644 Stohlman's " 6 00 *3645 Hale's " " 3 00
SHARP & SMITH
3643—Closed. SHARP & SMITH
3643—Open. 3645

GYNÆCOLOGICAL-SPECULA.

FIG.					50	
*3646	Goodell's	Vaginal	Speculum	1 \$	6	00
	Hunter's	"			4	00
(Miller's	"		small	2	50
*3648	**	44	44	medium	2	50
3040	Miller's	66	44	large	2	50
*26.10	Fitch's	**	**		2	50
*3650	Fitch's Ethridge's	44	4.6	Fenestrated	2	50
	Byrne's	**	**		7	00
3652	Baxter's				3	75

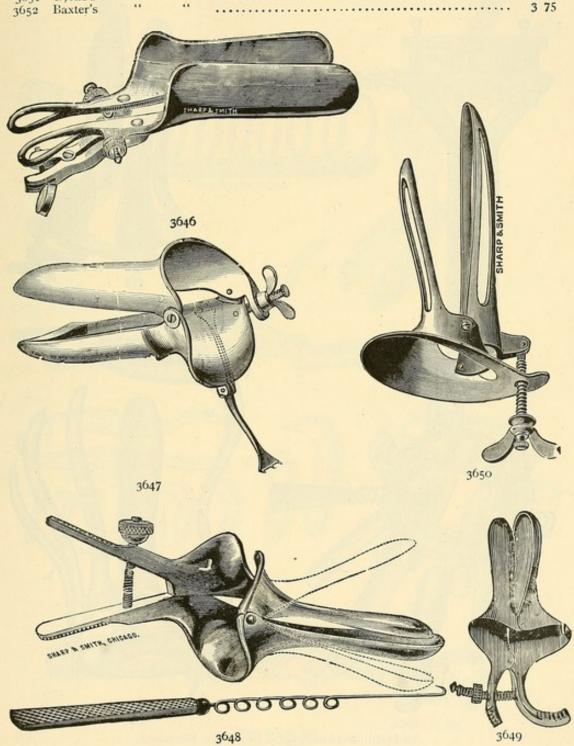
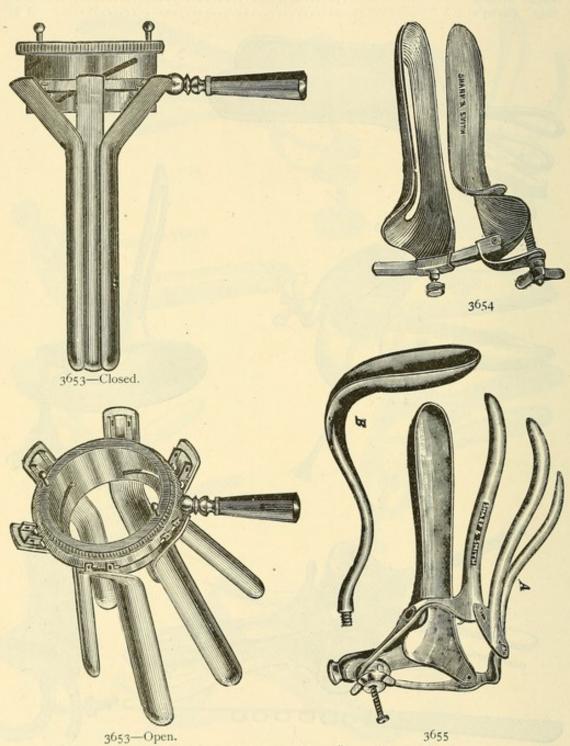
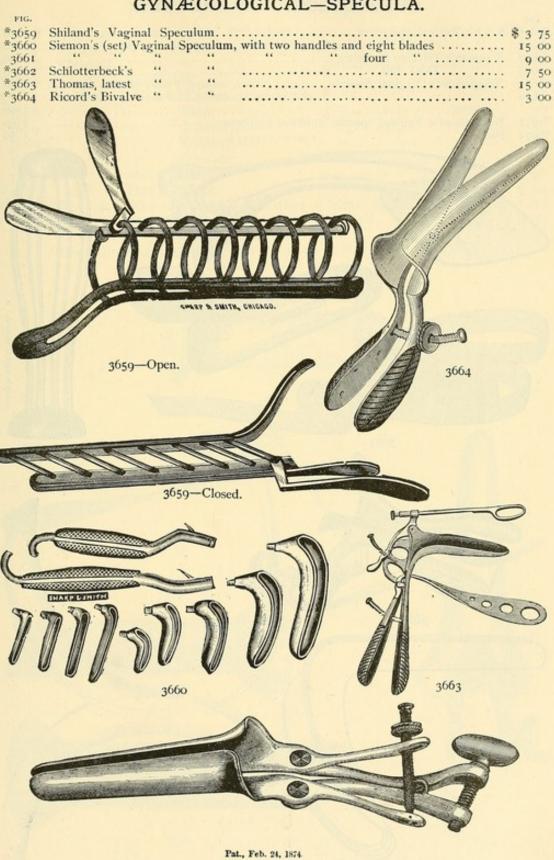


FIG.					
*3653	Universal	Vaginal	Speculum	\$ 7 !	50
	Leonard's	**	44	5	00
	Jenks'	**	46	6	00
	Reed's	"	"	5	00
	Meadow's		- 41	9	00
3658	Byford's	66	"	four blades 10	00



All Instruments designated by a * are illustrated.

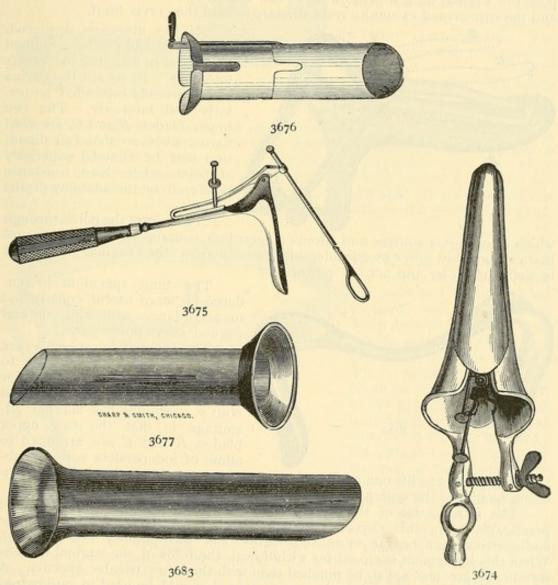


3662

*3665 3666 *3667 3668 *3669 3670 *2671 *3672	Erich's Vaginal Speculum	\$ 7 50 12 c0 9 50 2 00 4 50 5 00 2 00 1 50
	A Branch Control of the Control of t	672
	3667	
	3669 3671	

PIG.			
3673			8 8 00
*3674	T. & Co.'s Four Blade Vaginal Speculum		7 50
*3675	Thomas' " "		7 50
*3676			3 75
*3677	Fergusen's Glass Mirror " "		35
3678	" " Plain "		30
3679			55
3680			55
3681			50
3682			I 50
*3683	" Hard Rubber "		I 00
*3684	Dr. Jno. Blake White's Modification of Sims' Speculo	um	1 85
*3685			3 75

See following page for description of Figures 3684 and 3685.



All Instruments designated by a * are illustrated.

BY JOHN BLAKE WHITE, M. D., Visiting Physician to Charity Hospital, Blackwell's Island, N. Y.

The speculum we use to-day is a composite instrument, the result of suc-

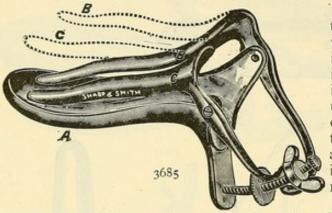
cessive improvement at the hands of experts.

Although important features about it have from time to time been added. not one alone of these instruments can be relied upon to the exclusion of the rest. There is, therefore, latitude yet open for the exercise of invention to those who are in the habit of employing the various forms of this essential aux-

iliary to diagnosis and treatment of uterine diseases.

Its success in my own hands, and that of a few of my professional friends, for the past three years, in facility of introduction, in readiness of adaptability and perfect command of the parts to be examined and treated, has been so satisfactorily demonstrated that I have esteemed it a duty I owed to the profession to place it at the option also of those from whom I have, at various times, received similar favors.

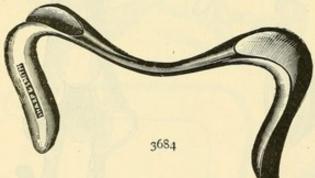
The lower blade A is so constructed that when introduced it follows the posterior vaginal wall, which, owing to the concavity of the sacrum, is curved, and the cup-shaped extremity rests directly behind the cervix uteri.



If the uterus is displaced, the curved end of the speculum will assist in bringing the cervix into view. By its aid the vagina is more easily distended posteriorly and inferiorly. The two upper blades, B and C, are concavo-convex, so that full dilatation may be effected superiorly at points where least resistance is offered by the anatomy of the region.

The part of the pelvis through

which the vagina courses and admits a speculum, contains no organ or tissues that can possibly suffer by considerable distension of the vagina. This fact is well shown by the act of parturition.



The Sims speculum is rendered far more useful, constructed in accordance with this natural vaginal curve posteriorly.

The cylindrical specula are also more useful when made to conform more fully to this posterior vaginal curve. The improved Nott's speculum has another advantage in that the two upper blades, B and C, are arranged to admit of independent action, enab-

ling the operator to lift one or the other lateral half of the vagina. This mechanism facilitates the search for the cervix uteri, especially in displacements.

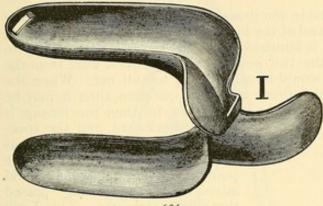
The introduction of the uterine sound, as well as tents, is rendered more practicable when this curved speculum is used, and local treatment of the endometrium can be far more thoroughly and satisfactorily accomplished. When this instrument is closed for withdrawal, the folds of the vaginal mucous membrane are less apt to be pinched than with the other trivalve specula. A smaller sized instrument than the one presented should be used in nulliparous vaginæ.

*3686	Cleveland's	Vaginal Speculur	n, Fig.	1)
3000A		"	"	3 \ \$2 50
*3686B		Speculum Belt		2

A SELF-RETAINING SPECULUM.

BY CLEMENT CLEVELAND, M. D., New York.

This instrument is designed as a so-called relf-retaining speculum. It consists of two Sims blades, each with a flange, and separated by an interval of

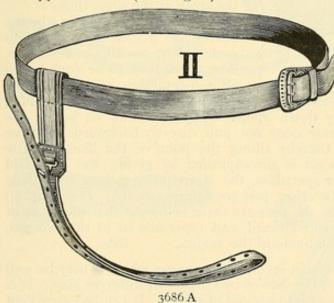


3686

one inch and three-fourths (Fig. 1). These, though in parallel planes, looking at them from the side, will be seen to be at a slight angle to each other when held with the concavity of either toward the observer, the nearer blade deflected to the right, and the farther one to the left. The object of this will be explained further on.

At the point of each blade is a fenestra, and at the bend of the instrument, where the two

blades come together, is a narrow metal band. To complete the instrument, there is a belt of webbed material to be applied about the waist. On this is looped, to admit of its being moved readily to any position upon the belt, a piece of the same material. To this is attached a long leather strap, with oblong perforations placed at intervals of half an inch. At the point where this strap and the piece of belting are joined there is a hook, the purpose of which will appear later. (See Fig. 2).

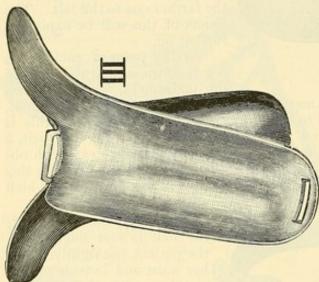


To apply the instrument, the belt is first buckled by the patient, not tightly, about her waist and outside of her clothing, with the attached strap behind and the hook turned outward. She is then placed in the Sims position. The operator selects the blade he thinks better suited to the case, and, holding the instrument with the right hand, with the left he passes the leather strap through the fenestra at the point of the other blade, and then under the metal band, leaving the strap quite loose between Then holding the them.

speculum still with the right hand, with the index finger extended along the concavity of the blade, it is introduced, care being taken to pass it back of the cervix. The instrument is then pushed firmly up against the perineum, the outer blade reaching a point just at the bend of the coccyx. I would say here, in parentheses, that I have tried the instrument in over fifty women in my clinic

at the Woman's Hospital, and find that the interval of one inch and three-fourths between the blades is enough, even in the stoutest women, to include all tissue between the posterior wall of the vagina and the integument between the nates. In very thin women it will even be found advisable to place a folded towel under the external blade. The next step is to draw the leather strap tight, first through the fenestra and then under the metal band. The perineum is then retracted to the required degree by drawing the strap backward and securing it to the hook provided for the purpose, as here described. By now using the vaginal depressor the cervix is brought at once into view.

When the belt is applied outside the dress it may be necessary to pass the strap through the fenestra at the end of the blade. In many cases the clothing, pushed back from the buttocks, is bunched up so high that it is necessary to have the tension exerted from the two points. If the tension were from the metal band alone the speculum would be more likely to pull out. When the belt is applied merely over the nightdress, as in an operation, then it may be only necessary to pass the strap under the metal band, for then the tension is



3686 B

directly backward, and the speculum cannot possibly pull out, as the strap presses firmly over the point of the blade. Still I should advise it always being passed through the fenestra. This I will explain below. To remove the speculum, detach the leather strap from the hook. The oblong perforations enable the operator to pull the strap off with the greatest ease. Then the speculum is withdrawn from the vagina and off of the strap at the same time.

I should here explain why the blades are placed at an angle to each other, as above described. The chief fault to be found with all self-retaining specula is that,

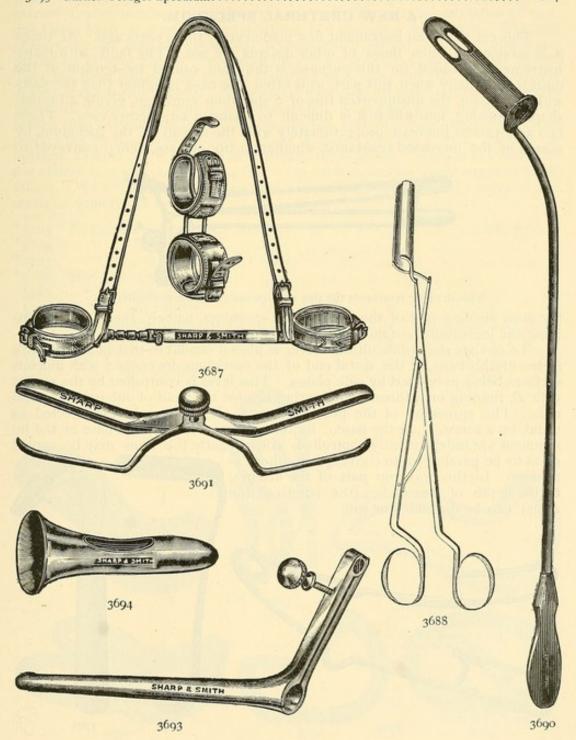
to see at all satisfactorily, one has to stoop; while with the Sims speculum, held by a nurse, we look directly down upon the cervix as we sit before the patient. This is because the nurse does not pull directly backward upon the perineum, but a little upward, thereby tilting the point of the blade a little downward. This is precisely what is accomplished by giving the aforesaid angle to the blades in this new speculum, the strap pulling the outer blade directly backward, thus tilting the other just enough downward. (See Fig. 3.) If the strap is not passed through the fenestra there is danger that the point of the blade under the strap may slip upward, and especially so in thin women, thus deranging the position of the blade in the vagina.

The instrument seems to possess several advantages which it may be well to mention. In the first place, it consists of two blades of different size. It is simple, having no mechanism about it to get out of order. It can be easily kept clean, being entirely of metal, and in one piece.

It is not claimed that it can take the place of a well-trained nurse, but it certainly does better than an indifferent one. It has been used in several cervix operations at the Woman's Hospital, with entire satisfaction to the operator.

GYNÆCOLOGICAL-URETHRAL.

FIG.			
*3687	Clover's Perineal Crutch \$	9 0	00
*3688	Elliott's Cervical Speculum.	4 7	75
3680	Wire Douche "	I	50
*3690	Peaslee's Tube and Stem for Intra Uterine Medication	2 ;	75
*3691	Skene's Urethral Speculum	2 2	25
3692	Folsom s " "	1 :	20
*3693	Sharp & Smith's Urethral Speculum. Jackson's Mirror Barnes' Pledget Speculum.	I S	50
*3694	Jackson's Mirror "	8	35
*3605	Barnes' Pledget Speculum	2 /	10

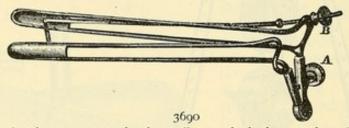


GYNÆCOLOGICAL-URETHRAL.

FIG.																		
*3695	Brown's U Jackson's	rethral	Speculum.		 	 		 							8	3	35	
*3697	Jackson's	Vaginal	Retractor	 	 	 		 	 			6	a	cl	1	I	50	
3698	Sims'	"	44														50	
	Porter's												4	•			50	
	Feig's	- 66	"	 				 		 						7	00	į
*3701	Beatty's	**															85	
*3702	Wire Labi	a	11														40	

A NEW URETHRAL SPECULUM.

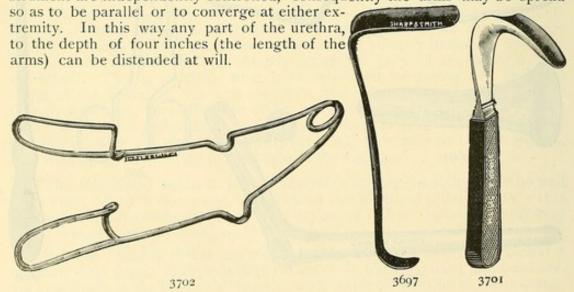
This cut shows an instrument first made two or three years ago. At times it is serviceable when those of other designs are not. The fault with many instruments intended for this purpose, is the pain caused by tension of the meatus, especially when this part, as is often the case, is tighter than the parts within. Again, the unsupported tips of a speculum converge, giving a funnel-shaped opening, into which it is difficult to secure a satisfactory view. These two annoyances increase proportionately with the spread of the speculum, by reason of the increased resistance, whether at tip or base, being conveyed to



This drawing represents the tips well opened; the base moderately so.

the most yielding part of the arms of the speculum, namely, their free extremities; the increased resistance adding at the same time to the pain.

To obviate these difficulties, a lever is placed similar to that in Dr. Brown's metro-urethrotome, at the distal end of the speculum, its contact with mucous surfaces being prevented by side plates. This lever is controlled by the screws with B, running on a thread and bearing against the head of one pair of lateral rods. The spreading of the proximal parts of the speculum is effected as usual, by a screw, A, at the base. By this means the tips and base of the instrument are independently controlled, consequently the arms may be spread



GYNÆCOLOGICAL-PESSARIES.

For the Mechanical Treatment of Prolapsus Uteri, Versions and Flexions.

Much has been written by physicians on the subject of uterine displacements, and very opposite views have been entertained of the proper treatment. Some advocate the use of pessaries, while others condemn them. But we do not see why pessaries should be wholly condemned because they have been used injudiciously. Physicians must acknowledge that great benefits have been derived from the application of the principles of mechanics to the treatment of uterine displacements. Ever since the days of Hippocrates, pessaries of various forms have been used for supporting and elevating the uterus. The first pessary that we read of was a small pomegranate, pierced through the core and placed by Hippocrates in the vagina for the purpose of supporting the womb. This has been imitated by French surgeons, who used for the same purpose unripe oranges and lemons. We keep on hand and manufacture to order every variety of pessary for uterine displacements. At present there seems to be no settled plan of treatment. While one surgeon prefers a ring pessary, another prefers the stem, another a cup, another a globe, another a disk, another an inflated, another an S, while others discard them in toto. We will not assert all the claims of each individual inventor, as each claims his to be superior to all others. We will illustrate the pessaries and leave the physicians to judge of the merit or demerit of each.

*3703	Fowler's Pessary, three	sizes	each \$ 1 25
*37°3 *37°4 *37°5	" Bow Pessary		1 75
*3705	" Anti-Impaction	Pessary	I 75
*3706	Hodge's closed		25
3707	" open lever		30
3708	" soft rubber	"	75
*3709	Hitchcock's Anteversion		I 00
3710 *3711	Sims' Metal ring	"	35
*3711	Smith's		25
3712	" soft rubber	"	75
101	Part of the second		
	37°3	3705	3711
	3704	3705	SWARE IN SWITH, CRICAGO,

GYNÆCOLOGICAL-PESSARIES.

FIG.	GINACOLOGICAL	- ESSARIES.	
*3713 *3714	Cutter's Prolapsus Pessary Thomas' Cutter's Prolapsus Pessary Chair Pessary		2 00
*3715 *3716 *3717	Cutter's Retroversion Pessary	• • • • • • • • • • • • • • • • • • • •	I 25
*3718	Thomas' Cutter's Retroflexion Pessary Retroversion	· · · · · · · · · · · · · · · · · · ·	2 25 1 85
3720 3721	Cutter's Ring Pessary "Anteversion Pessary		I 50
*3722 *3723	Thomas' "T" "	• • • • • • • • • • • • • • • • • • • •	I 50
*3724	Scott's "		I 75
	A C		
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1		A M	
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1		201	15
1		Ty	
1			
			2
		3718	3723
(
1	SHARP & SMITH, CHICAGO.		
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	ON SELECTION OF THE PARTY OF TH		2716
	3724	3717	3716

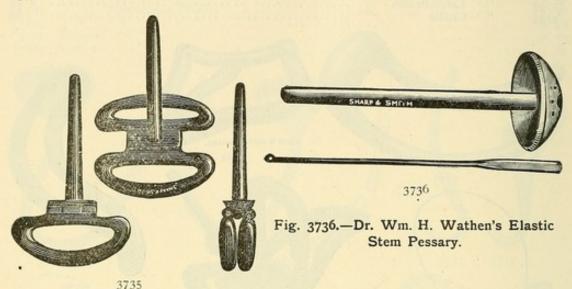
The prices on all of Cutter's and Thomas' Modification Pessaries include a belt, as shown in Fig. 3714.

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL-PESSARIES. FIG. *3725 3726 *3727 *3728 *3729 75 1 20 Retroversion Pessary..... Anteversion 75 75 *3730 Retroflexion *3731 Anteflexion *3732 1 50 *3733 Lateroflexion Cradle 3734 P.H. SCHMIDT .N.Y JARRY & SHITE, CHICAGO 3731 3725 3730 3733 SHARP & SMITH, CHICAGO SHARP & SMITH 3727 3732-Closed. 3729 SHARP & SMITH, CHICAGO. 3728-Closed, 3728-Open. 3732-Open.

GYNÆCOLOGICAL-PESSARIES.

4. 475.														
*3735	Conant's Intra Uterine	Stem	Pessary			 		 	 		 	 \$	I	75
*3736	Dr. Wm. H. Wathen's	Intra	Uterine	Stem	Pessary	 	 	 	 	 	 		I	25
*2727	Jackson's Elastic	6.6	**	16	66									
*3738	" Hard Rubber	66	64	6.	8.6									75
*3730	Hard Rubber	44	61	**	44	 	 	 	 	 	 			55
*3740	Peaslees'	44	44		66	 	 	 					1	
	Galvanic	16	- 66	16	4.4									
2712	Thomas'	- 66	16	66	4.0									
3/4-	THOMBIA					 	 	 	 	 	 			4.5



In treating uterine flexures or curvatures unconnected with great stenosis, one has trouble with a rigid stem pessary, which causes irritation of the part. Elastic pressure being the proper mode of treating those, as well as flexures of other parts of the body, a Pessary, described by the accompanying cut, has been devised by Wm. H. Wathen, M. D., Louisville, Ky.

It is made of soft red rubber, of the same shape as an ordinary simple Stem Pessary, with a flange at the lower end fitting smoothly over the cervix, but perforated so as to allow free discharge of secretions. The stem is hollow, so as to allow the introduction of an elastic stylet of any desired strength the operator may wish, but great force is not necessary. The stylet can be made by any person, whittled out of whalebone or hard rubber, left hard enough at the outer end

to tightly fill the stem, exclude the moisture, and retain it in place.

In ordinary cases, the stem can be introduced with the stylet in position, but, when the parts are intolerant, the rubber alone can be worn until a tolerance is established, after which the spring is easily slipped in without the least danger of lacerating or irritating the over-sensitive endometrium. Under elastic pressure applied in this way, curvatures soon disappear. Other Pessaries for retaining the uterus in position, can be worn at the same time without interfering with this one. When the uterus is in normal position, the vaginal walls exert pressure enough to keep the stem in position. When they do not, pledgets of antiseptic wool or cotton should be used. These stems should be made of two lengths and sizes, 2½ and 2½ inches long, and Nos. 6 and 10 in size. The size and length of the stylet can be made to make quite a difference in their size and length. The stylet in the above cut is pictured too long; it should be no longer than the cavity in the stem.

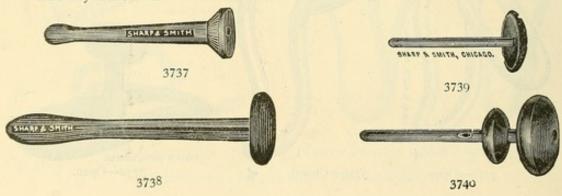


FIG.	GYNÆ	COLOGICAL-	-PESSARIES.	
*3743 3744 *3745 *3746 3747 3748 3749 *3750 *3751 3752 3753 3753 *3754 *3755	Sims' Edwards' Coxeter's	sary	with stem for introd	75 uction, per set. 2 75
	374) SHAR	3751
(sun	F IN SHITH, CHICAGO. 3743		SATES &	эшти, сисьоо. 37.54
	S A	4		
	0	SHEEF & SHITE	CHICAGO.	
		SHARPE SMITH		3755
		3/30		3/33

PESSARIES.

*3756 *3757 *3758 *3759 *3760 *3761 *3762 *3763 *3764 *3765	Trask's Rub "Cotte Zwank's Pes Hurd's "Buttles "Hard Rubbe Kinloch's An Hoffman's A	ber Dumb-Bell on " " ! ssary	Pessary		\$1.50	60 45 1 50 1 00 55 1 10 1 25
	37	Secretary of the secret	36	3759	376	
	3757-3758		3760		3762)
501.83	R SMITH, CHIGAGO. 3763		3764	3776 37	3771	
				0	37 ⁰ 37 ⁰ 38ARP &	SMITH
	3761		3761	3772 377	73 3766 to	3770

	GYNÆCOLOGICAL-PESSARIES.	
*3766	Peaslee's Ring Pessary	\$ 35
*3767	Block Tin " "	
¥0768	Copper Wire Ring Pessary, rubber covered	35
*3768	Spiral " " " " "	35
*3769	Spirat	35
*3770	watch Spring	35
*3771	Haid Kubbei	35
*3772	Illiated	30
*3773	pare guii	50
3773-	-A German	75
*3774	Inflating Stem Pessary	30
3775	pare guin	50
*3776	pear snape	30
*3777 *3778	pure guin	50
13778	Hornby's Pessary, with belt, plated	2 25
73779	SHVCI	4 00
73780	O Leary's plated	2 25
*3779 *3780 *3781		4 50
*3782	Braun's Colpeurynter with Stop Cock	1 50
3783	Woodward's New Pessary	1 10
3784	Glass Concave "	25
3785	Hard Rubber Concave Pessary	25
3786	Glass Globe	25
3787	Hald Rubbel Globe	1 00
3788	Noeggeratus	60
3789	Chamberlain's "	1 00
3790	Beebe's "	50
3791	Wilson's "	6 00
3792	Higbee's "	60
	3778-3779 3778-3779	
	3780-3781	

3782-Braun's Colpeurynter.

GYNÆCOLOGICAL-PESSARIES.

Fig. 3794. Bozeman's Vaginal Pessary.... \$ 1 60

(Extract from "Retroversion in Relation to Lacerations of the Cervix Uteri.")

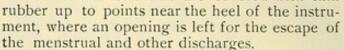
BOZEMAN'S VAGINAL SUPPORT.

By NATHAN BOZEMAN, M.D., New York.

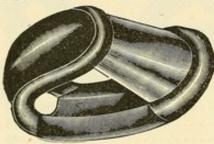
* * * I have labored long to devise a suitable vaginal support to take the place of the column of carbolized cotton, but it is only within the last year that I have succeeded in bringing the instrument to a degree of perfection which enables me to predict its ultimate success.

This instrument is constructed upon the principle of the parallelogram.

It is elastic, and thoroughly self-sustaining. This instrument is made of steel wires. It has vesical and rectal branches which are covered with thin



Upon the vesical branch is set a cushion which is to receive and support the vesico-vaginal septum. The covering of the rectal branch is distended with air in order that it may adapt itself uniformly to the recto-vaginal septum. The two upper uneven points are united by a broad elastic apron which, like a chair, is to



3794.

receive the cervix uteri, and to a certain extent support the weight of the entire organ. When viewed edgewise the instrument presents somewhat the appearance of a jockey's cap, and a medical friend suggested that it should be called the "jockey cap" pessary. However, to avoid the name of a uterine pessary, I prefer to call it a vaginal support. This name is in strict accord with the action of the instrument, for it leaves the uterus and its relaxed ligaments to take care of themselves in their normal relation and position. This is an attainment of the highest aim I can conceive for any form of instrument employed for the latter purpose.

This instrument is not only useful for maintaining the uterus in an elevated position after retroversion and prolapsus have occurred, but it is also a most valuable instrument with which to accomplish the same end after the retroflexed and fixed uterus has been dislodged from the hollow of the sacrum by means of the cotton columns or compresses already described.

After proper preparatory treatment by means of the cotton columns directed obliquely against the vesico-vaginal septum from the perineum or point d'appui, the instrument can be used with equally satisfactory results in cases of anteflexion and anteversion of the uterus.

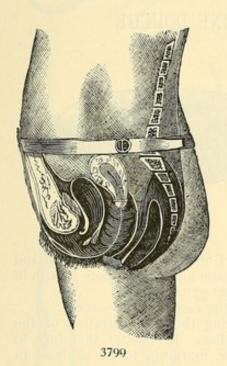
I have numerous illustrations which show in what direction the several forces alluded to operate, both with reference to the oblique cotton columns employed in the preparatory treatment, and the vaginal support used in the curative treatment, but time and space do not permit their description and introduction into the present paper.

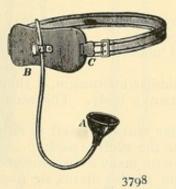
Suffice it to say that retroflexion and fixation of the uterus in the hollow of the sacrum constitute, both in the primiparæ and in the multiparæ, the largest class of uterine displacements, and often the most deplorable, which we are called upon to treat. Hitherto, treatment of these cases by means of the uterine sound and stem pessary has been unsatisfactory, and, according to my experience, a more comfortable, safe and effective method is unquestionably a great desideratum. The plan of treatment which I have described is nothing more nor less than an application of some of the principles of orthopedic surgery to uterine distortions, and I think, will accomplish the end desired. * *

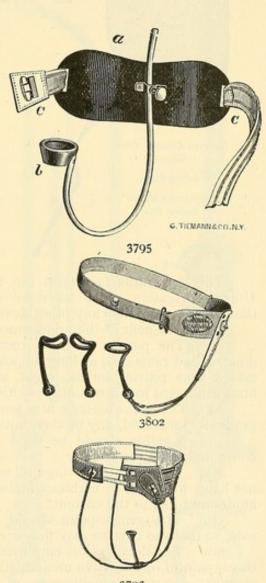
PESSARIES OF ALL KINDS MADE TO ORDER.

GYNÆCOLOGICAL-UTERINE DILATORS.

 \$ 2 25
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 4 50
 5 00
 4 00
 3 25
 10 00
 4 00
 5 00
 8 00
 5 00



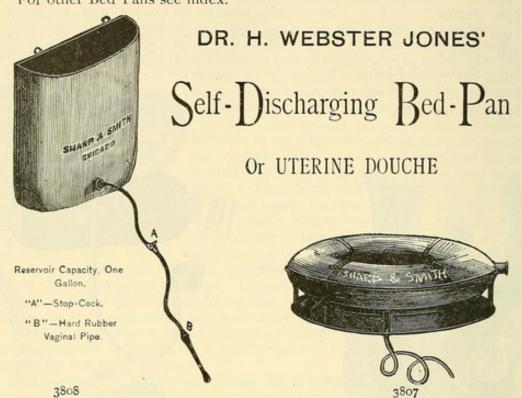




All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—DOUCHES.

P I U									
380.	4 Frazer's V	aginal	Douche				 	 3 2	75
380	5 Frost's		"					 2	25
380	6 H. Webste	r Jones	Bed Pan	and Douche,	comple	ete	 	 5	00
*380	7 "	"	"	only			 	 4	00
*380	8 "	"	Douche	"			 	 I	00
380	9 Emmet's R	Lubber .	Bed Pan.				 	 3	75
	For other Red								



This apparatus facilitates the use of Dr. Emmet's plan of Vaginal and Uterine Irrigation, which has done more to restore and to promote health in the pelvic organs than any other device of modern gynæcology.

For the benefit of the uninformed, we state the essentials of success:

rst. The patient must be recumbent during the administration of the douche, and remain so as long as possible thereafter. It is better, therefore, to take it after retiring for the night, and if in the morning, to lie at least an hour afterward in a horizontal position.

2d. The water must be at a temperature of 105° Fahrenheit, and may be

gradually increased, day by day, until 120° is reached.

3d. A gallon should be used each time, and about twenty minutes be consumed in its outflow.

4th. If a fountain syringe be used, or other similar instrument, it should not hang higher than eighteen inches above the patient's body. This secures moderate force to the current.

5th. The syringe-point should be directed (after entrance) well to either

side, so that the current may flow around, not against the uterine neck.

6th. The douche thus employed, will unaided, cure many a case of leucorrhoea, painful or excessive menstruation, inflammation of the uterus or ovaris cellulitis, excessive sensitiveness of the organs, irritable bladder and rectum, etc., etc. When used as an adjuvant to other treatment, it will greatly hasten convalescence, and contribute to permanence of health, if persevered in after cure.

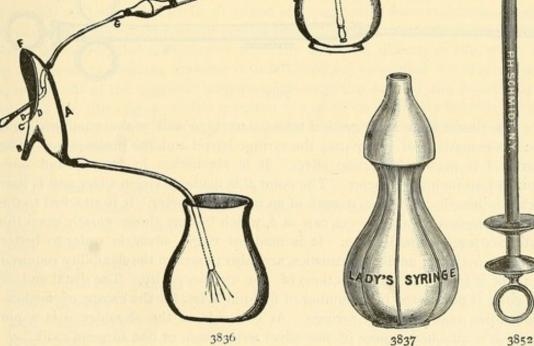
GYNÆCOLOGICAL-SYRINGES.

FIG.	GINÆCOLOGICAL—SIRINGES.
3810	Hard Rubber Uterine Syringe, long stem \$ 85
*3811	Lente's Uterine Syringe
*3812	Lente's Uterine Syringe 3 00
*3813	Bumstead's Uterine Syringe
*3814	Burr's Hard Rubber Uterine Syringe (Ointment) I 00
*3815	Spicker's Double Tube " " 2 50
*3816	Chamberlain's Utero Vaginal "
*3817	Barthalow's Regurgitating Tube
*3819	Chamberlain's Utero Vaginal " I 75 Barthalow's Regurgitating Tube I 00 Molesworth's Uterine Syringe. 4 50
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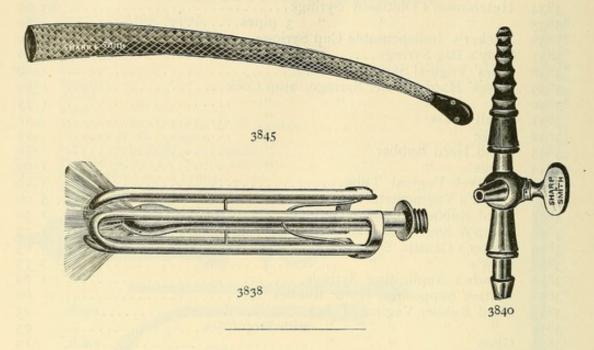
GYNÆCOLOGICAL—SYRINGES.
Braun's Uterine Syringe
SHARP A SHITE, EMEAGO. 3828 SHARP SHITE SHIELD 3835
MANOLESWORTH TOPS VACUE AND MAY 28, 1872. 3833 OR SUCTION SYRINGS 3833 3831

All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—SYRINGES. FIG. Hutchinson's Ointment Syringe...... \$3 00 3834 3 pipes..... 4 50 3835 3836 Lady's Bag Syringe..... 2 50 3837 *3838 Stiles' Vaginal Syringe Tube...... 1 00 3839 I 75 3840 3841 Small Brass 50 Large " 3842 75 Small Hard Rubber 3843 50 3844 *3845 Silk Web Vaginal Tube..... I 00 Cutter's Vaginometer..... 3846 5 00 Hard Rubber Ointment Syringe..... 3847 I Sharp & Smith's Syphon Vaginal Syringe..... 3848 1 75 Parker's Caustic Syringe..... 3849 3850 Dick's 75 3851 *3852 Munde's Applicating Syringe..... 60 Buttles' Suppositor, Hard Rubber..... Hard Rubber Vaginal Tubes.....each. 3853 3854each. 3856 Glass Mattson's Vaginal Irrigator..... 3857 3858 1 25 4 00 3859 Lutz's 3860 Long's Uterine



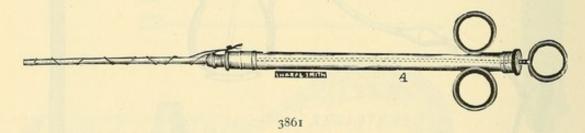
GYNÆCOLOGICAL-SYRINGES.



3861 Kelly's Silver Applicating Syringe......\$4 50

An Improved Method of Making Applications to the Uterine Mucous Membrane.

By J. D. Kelly, A. M., M. D., Utica, N. Y.



The instrument is, in general terms, a syringe and probe combined, and consists essentially of two parts; the syringe barrel and the probe point. The barrel A is made of sterling silver. It is six inches in length, and one-fourth of an inch in diameter. The point B is made of virgin silver and is four inches in length, and one-sixteenth of an inch in diameter. It is attached to the barrel by means of a screw-cut cap at b, which fastens down closely upon the leather-covered shoulder at a. It is made of virgin silver, in order to better resist the action of acids and caustics, and also to secure the flexibility required to adapt it to the varying directions of the uterine cavity. The distal end of the point is perforated by a number of fine pin-holes, for the escape of medicaments upon operating the syringe. At one side of the shoulder a is a pin to which is attached a piece of fine silver wrie suture or fine surgeon's silk.

GYNÆCOLOGICAL—SYRINGES.

The method of using the instrument is as follows: The point B is screwed upon the barrel A, and, the direction of the uterine canal having been learned, the point is bent to the proper curvature. With the piston depressed the point is inserted in the liquid medicament, and a quantity drawn up into the barrel by withdrawing the piston. A bit of cotton is then wrapped loosely about the tip of the point covering the perforated extremity and held in place by a few turns of the silver wire or silk thread, which is then brought back and its extremity fastened at a. The instrument is then introduced through a speculum and the probe point passed through the os tincæ into the uterine cavity. When the cotton covered point is upon the part to be treated, the piston is depressed, thereby forcing the medicament through the pin holes, saturating the cotton, and therefore, placing it directly in contact with the parts to be operated upon. During treatment it is well to place a pledget of cotton under the posterior lip of the os to take up any excess of the application that may escape into the vagina upon withdrawing the instrument. After use, the cotton is readily removed from the point upon unwinding the wire or silk thread, avoiding thereby all force in detaching it which would be likely to injure the flexible and hollow point. After cleaning, the point may be unscrewed and be bound to the side of the barrel by a few turns of the wire or thread, to protect its flexibility in carriage.

The advantage of this instrument consists in the facility and directness with which it does its work. It is introduced but once at a treatment, whereas the usual method with a probe or sound wrapped with cotton required passage through the neck of the canal several times, thereby causing damaging irritation. Moreover, the medicament is hereby delivered directly in situ, whereas, by the usual method, the operator is usually obliged to witness the medicament squeezed out of the cotton in its passage through the os and run down before his eyes into the vagina, while his cotton is pushed on quite dry into the cavity of the uterus, where it is directly coated over with secretions and wholly incapable of the designed effect.

FIG.												
3862	Emmet's Gynæcolog	ical Case			 					 . 5	864	00
3863	T. Gaillard Thomas'	Gynæcological	Cas	e	 						30	00
3864	Dr. G. S. Winston's	H simos"	"								40	50
3865	Buttles'	" mane"	66						 		18	75
3866	U. S. Army		"		 						94	00
3867	A. Reeves Jackson's	"	"		 						40	00
3868	Byford's	"	"		 				 		50	00
3869	Bozeman's	"	"								70	00
3870	Sims'	"	66		 						35	00

GYNÆCOLOGICAL SETS.

Dr. T. A. Emmet's Set of Instruments for Vesico Varinal Fietula

			struments for Vesico-Vaginal Fistula,
		-	
I	Sims' Hospital Speculum.		Bistouries.
1	virgin		Scalpel.
I	Emmet's Depressor.		Emmet's Needle Forceps.
4	" Sponge Holders.	1	" Dressing "
I	Sims' Catheter, soft metal.	I	" Wire Twisting Forceps.
1	Emmet's Uterotome.		Sims' Blunt Hook.
2	". Tenaculums.	I	" Shield.
I	Perry's Tenaculum.	1	" Wire Carrier.
6	Emmet's Scissors.		Coil Silver Wire.
1	" Wire Pressing Forceps.	I	Dozen Emmet's Needles.
	Put up in a fine morocco pouch, l	ine	d with red chamois.
	Fig. 3863. Dr. T. Gaillard Thomas'		
1	Thomas Speculum.		Whalebone Rods.
I	Budd's Probe.		Buttles' Scarifier.
	Sims' Sound.	I	Long Pipe Syringe.
	Simpson's Sound.		Bristle Brushes.
	Sims' Uterine Probe.		Plain Curette.
I	Sims' Tenaculum.		Sponge Holders.
I	Emmet's Dressing Forceps.	-	ı oz. Bottles.
I	Thomas' Sponge Tent forceps.	I	Cotton Applicator.
	Put up in a wooden morocco cove	ere	d case.
	Fig. 3864. Dr. G. S. Winston's Uter	rine	Case, contains :
1	Set of 3 Buttles' Glass Specula.	I	Nott's Uterine Dilator.
1	Gillette's Speculum.	I	Pair Winston's Dressing Forceps.
I	Hard Rubber Intra-uterine Syringe.	I	" Sims' Scissors, curved up.
1	Uterine Sound, 1 Silver Uterine	I	Budd's Hard Rubber Applicator.
	Caustic Probe, 1 Silver Uterine	I	" Probe.
	Applicator, 1 G. S. Sponge	1/	Dozen Sponge Tents.
	Holder, to fit into one handle.	1	" Emmet's Needles.
1	Buttles' Scarifier.	I	Coil Silver Wire.
1	Set Peaslee's Dilators.	I	Emmet's Caustic Forceps.
A	arranged in a fine black calfskin ca	ise,	satchel form, lined with red chamois.
	Fig. 3868. Dr. Byford's Gynecologic	al (Case, contains:
3	Higbee's Speculums, large, medium	1 2	Curved Serresfins.
	and small.	I	Sims' Needle Holder.
I	Sims' Speculum, with 1 broad blade	. I	Plain Tissue Forcep.
I			Emmet's Twisting Forcep.
I		, I	Byford's Medium Vulsellum Forceps.
	without sheath.		Uterine Knife.
I	Byford's Blunt Hook.	I	Sims' Probe.
I	Sims' Sigmoid Catheter, Hard Rub-		Hard Rubber Probe.
	ber.		Byford's Scissors.
	Byford's Curette.		Fitch's Sound.
	Sims' Sharp Curette.		Emmet's Sponge Holders.
	Jackson's Retractor.		Sims' Tenaculums.
	Nelson's Uterine Dilator.	12	Elm Tents, assorted, straight, curved
	Byford's Dressing Forcep.		and hollow.
I	Straight Serresfin.	12	Needles, assorted, for Uterine work.

The small instruments in a neat roll up pouch, and all in a good quality instrument bag.

1 Straight Serresfin.

GYNÆCOLOGICAL SETS.

Fig. 3866. U. S. Army Gynæcological Set, contains:

- 1 Wallace's long Obstetric Forceps.
- 1 Brickel's Obstetric Forceps, for premature delivery.
- 1 Dr. T. G. Thomas' Perforator.
- 1 Braun's Cephalotribe.
- 1 Budd's Blunt Hook and Crochet, guarded.
- I Loomis' Placenta Forceps.
- I Vectis, with handle.
- I Set of Barnes' Dilators.
- 1 Uterine Dilating Catheter.
- 1 Small Tampon.
- I Breast Pump, Penis Congestor, and Transfusion Glass, combined.
- 1/2 Dozen Sponge Tents.
- Sea Tangle Tents. 1
- 1 Bottle, Glass Stoppered, and Glass 1 Goodyear Union Syringe.

- 1 Bottle, glass stoppered, and glass covered, for sulphate of iron.
- Do. do. Bottle for Ergot.
- I Dr. Walter R. Gillette's Speculum.
- I Simpson's Folding Sound.
- I Each Emmet's Silver Probe and Applicator, with set screw handle.
- 1 Buttles' Scarifier.
- I Nott's Tenaculum.
- 1 Sims' Uterine Elevator.
- 1 Pair Sims' Scissors.
- I Intra-uterine Suppository Tube, hard
- 2 English Gum Elastic Catheters.
- I Fryer's Transfusion Set.
- 1 Sims' Sigmoid Catheter.
- covered, for Little's saline solution. I Sponge Tent Applicator

Arranged in a wooden, calfskin covered case, valise form, with lock and key, and German silver catches, and lined with purple velvet; 21 inches long, 8 inches wide, 5 inches deep, inside measurement. Case opens in the center.

Fig. 3867. Dr. A. Reeve Jackson's Gynæcological Case, contains:

- I Jackson's base expanding Speculum. I Thomas' Blunt Curette, small.
- I Jackson's Perineal Retractor.
- I Sims' Speculum, with one Broad Blade.
- I Sims' Best Uterine Sound.
- 1 Byford's Dressing Forcep.
- 1 Jackson's Tissue Forcep.
- 1 Jackson's small Vulsellum Forcep.
- 2 Jackson's Sponge Holders.
- 3 Jackson's Applicators.
- Jenks' Scissors.
- 1 Buttles' Scarifier.
- I Jackson's Cervical Needle.
- I Thomas' Blunt Curette, large.

- 1 Wylie's Large Sharp Curette.
- 1 Simon's small Sharp Curette.
- 1 No. 10 Soft Rubber Catheter.
- 1 Improved Russian Needle Holder.
- 2 Olive Tip Best Web Bougies.
 - (These are used instead of Sounds in cases of flexions.)
- 1 Long Handle Bistoury.
- I Dozen Tupello Tents, assorted.
- 1 Bottle No. 3 Catgut Ligature.
- 3 Cards Silk, Nos. 10, 12 and 14.
- 1 Doz. assorted Cervical and Perineum Needles.

In addition to these the operator should provide himself with absorbent cotton, antiseptic sponges, glycerine, vaseline, Churchill's solution of iodine and a solution of alum in glycerine and water, one part to eight. The small instruments, in a roll up pouch and all in a substantial instrument bag.

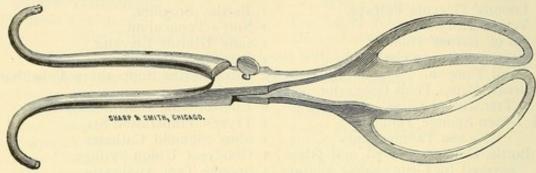
Fig. 3865. Buttles' Set of Uterine Instruments, contains:

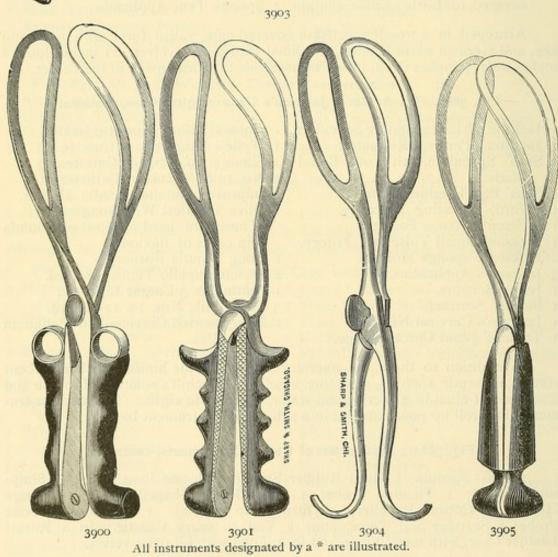
2 Glass Specula; 1 Hard Rubber Syringe with two long pipes; (1 Simpson's Sound; I Flexible Probe; I Sims' Razor Shaped Knife; I Sponge Holder; I Cotton Expeller; all fitting one handle). I Budd's Whalebone Probe; I Scarifier and Tenaculum; I Vial to carry Caustic. In a Russet Leather Case, with metal hinge and lock, lined with oil dyed velvet.

OBSTETRICAL INSTRUMENTS.

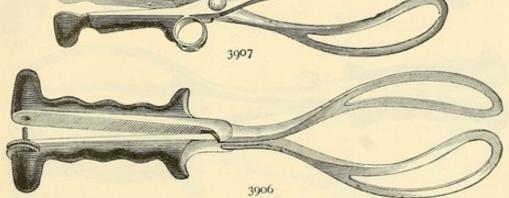
FORCEPS.

*3901 Simpson's " " " long 6 of 3902 " " " short. 4 5 of 3903 Wallace's " " " " 6 of 3904 Hodge's " " " 6 of 3905 Denman's " " " " " 6 of 3905 Denman's " " " " " 6 of 3905 Denman's " " " " 6 of 3905 Denman's " " " " " " 6 of 3905 Denman's " " " " " " 6 of 3905 Denman's " " " " " " 6 of 3905 Denman's " " " " " 6 of 3905 Denman's " " " " " 6 of 3905 Denman's " " " "	*3900	Bedford's	Obstetrical	Forceps,	nickel											
3902 " " " short	*3901	Simpson's			"	"	lor	ıg.	 					6	(00
*3903 Wallace's " " "	3902	""			44											
*3904 Hodge's " " " 5 c	*3903	Wallace's	46	44	66	66			 					6	0	00
	*3904	Hodge's	66	44	66											
3905	*3905	Denman's	"	**	**											





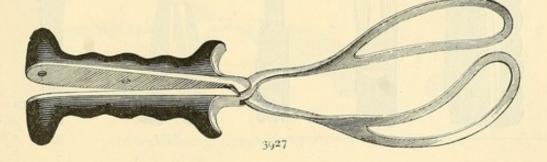
		DBSTETRI	CAL-FOR	CEPS.	
*3906 *3907 3908 *3909 *3910 *3911	Roler's Meigs' Davis' Improv	" " ed Obstetrical	rickel plated. Forceps, nickel plated.	nickel plateddlel platedel plated	6 00 6 00
	3910			3911	SHARP & SWITH
	A-	-0	1		



OBSTETRICAL FORCEPS.

*3912 Hunter's Obstetrical Forceps, new, nickel plated. \$7 0 *3913 Clark's " (Chicago). 5 5 *3914 Sawyer's " new, nickel plated. 4 5 *3915 Naegeli's " nickel plated. 6 0 *3916 Tarnier's " 18 7 3917 Knight's " nickel plated. 6 0 3918 Duncan's " " 5 0 3919 Gillman's " " " 6 5		OBSIE	RICAL	FORCEPS		
*3913 Clark's " " (Chicago)	FIG.	's Obstetrical Ec	rcens new	nickel plates	1	9 7 00
*3914 Sawyer's " new, nickel plated. 45 *3915 Naegeli's " " nickel plated. 66 *3916 Tarnier's " "	*2012 Clark's	"	" (Chica	meker plates		
*3915 Naegeli's " " nickel plated 6 6 6 7 3917 Knight's " nickel plated 6 6 7 3917 Knight's " nickel plated 6 6 7 3918 Duncan's " " " 5 7 3919 Gillman's " " " 6 5 7 3920 Henrotin's " " " " 6 2	\$3913 Clark's	'e "	" pow p	ightel plated		5 50
**3917 Knight's " " nickel plated.	3914 Sawyel		" nielsel	plated.		4 50
3917 Knight's " nickel plated. 6 6 6 7 3919 Gillman's " " " " 5 6 7 3919 Gillman's " " " " " " " 6 6 5 7 3920 Henrotin's " " " " " " " " " " " " " " " " " " "	*3915 Naeger	20 "				
3918 Duncan's " " " " 65 5 0 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
3919 Gillman's " " " " " " 6 5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S	HICKEI			
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	3920 Henrot	in's "				6 25
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SHARP & SMITH. CHICACD				SHARP& SMIT	H. CHICACD	
3913			3913			

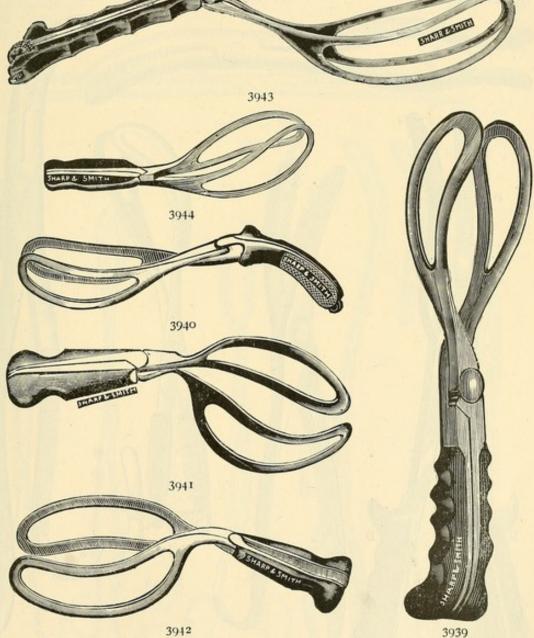
OBSTETRICAL FORCEPS. *3921 Hale's Obstetrical Forceps, short..... *3922 *3923 6 50 Jenks' 6 25 *3924 66 66 short.... 4 50 White's *3925 *3926 nickel plated..... 6 00 Comstock's " 5 50 *3927 Budd's " Newman's " 3928 5 00 3929 5 00 McLean's 3930 Robertson's 3931 Bond's 3932 6 00 66 Quackenbush's 3933 3921 3924 SHARP & SMITH 3923 No. 2 3931 3926



OBSTETRICAL FORCEPS.

*3934 *3935 *3936 *3937 *3938	Dr. Hobbs' No Dr. Adam Mill Barclay's Thomas' Denman's	ew Obstetrical F	orceps		\$9 co
			3934		
		3936		3937	3935

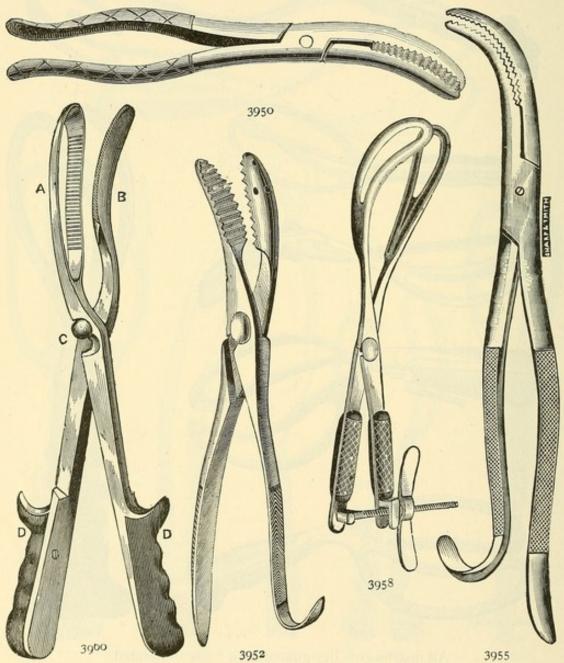
OBSTETRICAL FORCEPS FIG. Reamy's (Cincinnati) Obstetrical Forceps.....\$ 6 00 3939 *3940 Leavitt's Leonard's *3941 4 50 Stone's (St. Paul) *3942 4 50 Dr. J. Suydam Knox's (Chicago) Obstetrical Forceps.....long 8 00 *3943 *3944 Jaggard's Modification of Simpson's 3945 6 00 Brickell's 3946 6 00 Burdick's 3947 Scroggs' 3948



All instruments designated by a * are illustrated.

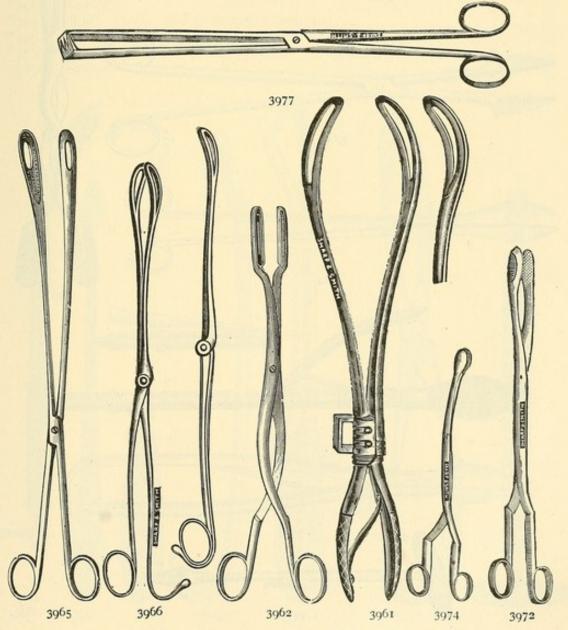
CRANIOTOMY FORCEPS.

FIG.					
3949	Meigs', straight Cra	niotomy Forceps	3	 	3 3 00
*3950	" curved	" "		 	3 00
3951	Simpson's (Craniocl	ast) Craniotomy	Forceps.	 	7 50
*3952	Thomas'	"	**	 	4 50
3953	Ramsbotham's	"	44	 	4 50
3954	Brickell's	"	"	 	3 00
*3955	Elliott's	"	44	 	3 25
3956	Budd's	"	**	 	3 00
3957	Taylor's	66	44	 	3 75
*3958	Lusk's Cephalotrite				13 50
3959					
*3960	Simpson's "				
-	1 1/2 X \ 1/ 0	The state of the s		and the same of th	

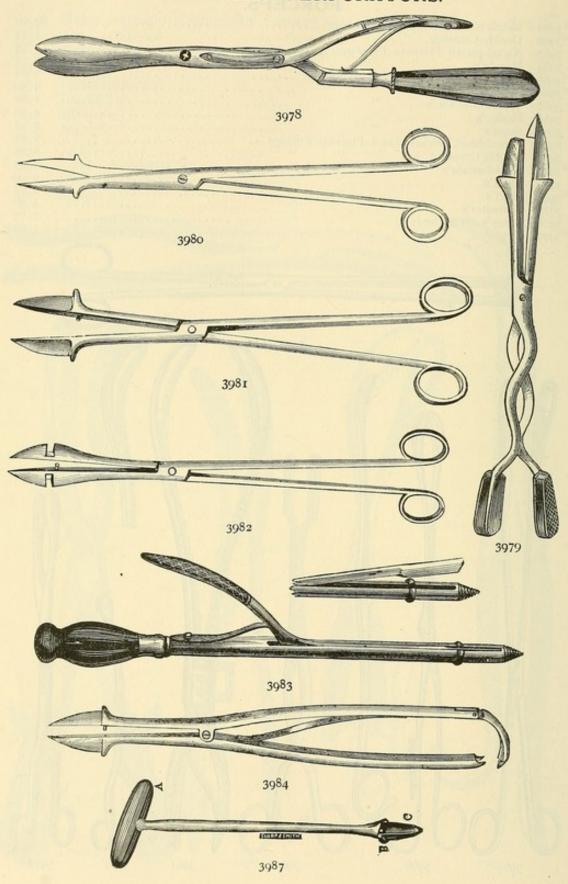


OBSTETRICAL—CRANIOTOMY AND EMBRYOTOMY FORCEPS.

Fig.												
*3961	Batchelder's Embryo	tomy F	orceps.			 	 	 		 	\$9	OC
*3962	Double Crossing "		"			 	 	 		 		25
3963	Nickel-plated Placent	a Force	eps			 	 	 		 	1	75
3964	Munde's "	**									2	25
*3965	Budd's Nickel-plated	Placent	a Force	ps		 	 	 		 	2	25
*3966	Loomis'	**	"			 	 	 		 	4	50
3967	Tiemann & Co.'s	61	46			 	 	 		 	I	85
3968	Hodge's	66	**			 	 	 		 	4	50
3969	Bond's	"	**			 	 	 		 	2	25
3970	Fenestrated, nickel-p	lated P	lacenta	Force	ps	 	 	 		 	2	25
3971	Double Crossing		**			 	 	 		 	2	25
*3972	Chamberlain's		44	"		 	 	 		 	3	25
3973	Clark's		"	"		 	 	 		 	2	OC
*3974	Hart's		46	"		 	 	 	٠	 	2	25
3975	Schnetter's		**	**		 	 	 		 	4	50
3976	Carey's Ovum and		**	44		 	 	 		 	2	75
*3977	Dentated		**	**		 	 	 		 	1	85

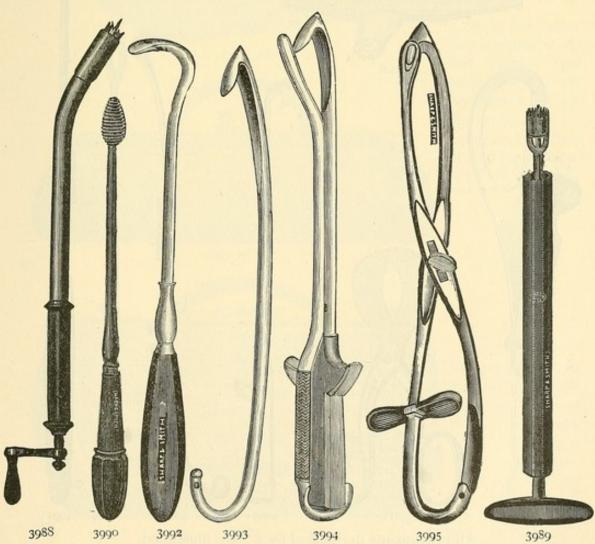


CRANIOTOMY PERFORATORS.



CRANIOTOMY PERFORATORS.

FIG.				
*3978	Blot's Cranium Perforator		\$	1 50
*3979	Holmes' Double Crossing P	Perforator.		1 00
*3980		11		2 25
*3981	Smellie's "	146		85
*3982	Simpson's	11		2 25
*3983	Thomas' " .	48		00
*3984	Naegeli's "	11		00
3985	Bachelder's "	66		75
3986	Hodges' "	11		75
*3987	Garland's "			3 00
*3988	Braun's Trephine		11	
*3989	Truehart's "	44		0
*3990	Lucas' "	111		3 75
3991	Plain Ebony Handle, Blunt	Hook		
*3992	Taylor's "			15
*3993		Combine		15
*3994	Bedford's " "	"		15
*3995	Budd's " " "	66	(quarded)	50
3995	Taylor's " " "	"		30
3990	Taylor 3			25



OB	STETRICAL-CRANIOTOMY	HOOKS AND	VECTIS.
3997 *3998 3999	Ebony Handle Vectis		
*4000 *4001	Leavitt's Placenta Hook		I 25
4002 *4003	Bedford's "		2 00
*4004 4005 4006	Clark's Placenta Ebony Handle Crotchet plain Taylor's Ebony Handle Crotchet		I I5
4007 *4008	Elliott's " " " Pulling's Funis Clamp		1 50
*4009 4010	Munde's Placenta Curette		2 00
*4011	Sharp & Smith's Placenta Scissors		1 50
6	4001		lund
	a toursea		
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	4008	V	0
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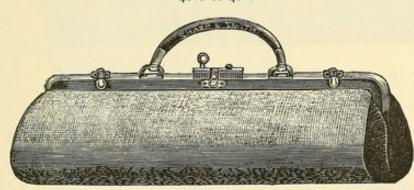
All instruments designated by a * are illustrated.

OBSTETRICAL.

013	King's Porte Cordo Leather Co	on				etus, fo							 			 . :
		F	rench	Mar	ikin	s all ki	nds, in	ipoi	ted	to	ore	ler.				
16	Obstetrical	Bag	s, 12 in	ches	long,	black o	or brow	n					 	 	٠.	 . :
17	6.0	"	13	**	**	"										
18	44	"	14	.4	4.6	44	"						 	 		
19	-44	**	15	**	**	**	**						 	 		
20	44		16	**	**	44										
21			17	11	4.6	44										
22	44	**	15 to 16	**	**	4.6		000	pty							
23	44				occo,	Chamoi										
24	66			Plair												



4016 to 4018



4019 to 4021

All of our leather bags are made of the best material, lined with Buckskin, and have pockets for holding powders, etc.

To the price of any of these bags add 50c. if you desire to have bottles with them (6).

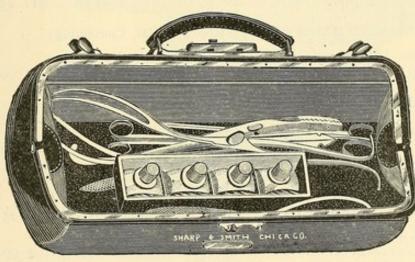
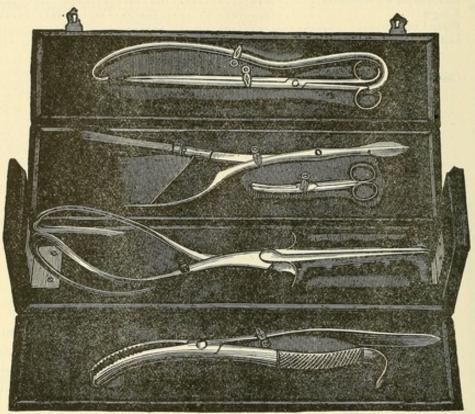


Fig. 4022. Represents any of our cases open and with bottles blocked in. Price of this case empty with bottles......\$4 50

4022

OBSTETRICAL CASES.



4025

Fig. 4025. ELLIOTT'S OBSTETRIC SET, Containing:

I pair Elliott's Long Forceps; I Blot's Perforator; I Blunt Hook and Crotchet; I pair Placenta Forceps; I pair Thomas' Craniotomy Forceps; I pair flat Curve Scissors.....\$26 25

Fig. 4026. DR. HODGES' OBSTETRIC POUCH, Containing:

1 Hodges' Forceps; 1 Smellie's Perforator; 1 Blunt Hook and Crotchet combined, in a leather pouch lined, to roll.....\$11 25

Fig. 4027. DR. BEDFORD'S OBSTETRIC POUCH, Containing:

Bedford's Forceps; 1 Bedford's Perforator; 1 Placenta Forceps; 1 Blunt Hook and Crotchet combined, in a leather pouch, lined, to roll, \$15 00

Fig. 4028. DR. ELLIOTT'S OBSTETRIC POUCH, Containing:

I Elliott's Forceps; I Blot's Perforator; I Placenta Forceps; I Blunt Hook and Crotchet combined, in a leather pouch, to roll.......\$18 75

Fig. 4029. OBSTETRIC POUCH, Containing:

Obstetrical Cases of any Style made to order.

While we have and can furnish all styles of Operating Chairs or Tables, we especially recommend the Chair, etc., known as "Sharp & Smith's Combined

Office and Gynecological Chair and Operating Table."

We recommend this because the best physicians and surgeons of Chicago have assured us that, with it, more can be accomplished, practically, than any other device known of in that line. However, if the description of our chair should not be sufficient to warrant an order, and more description is necessary, we will be glad to furnish it. We wish also to say that the "Footstool" and "Pillow" that accompany this "Chair" are ("accidentally") not shown in the cut, but both are furnished with each chair leaving our office.

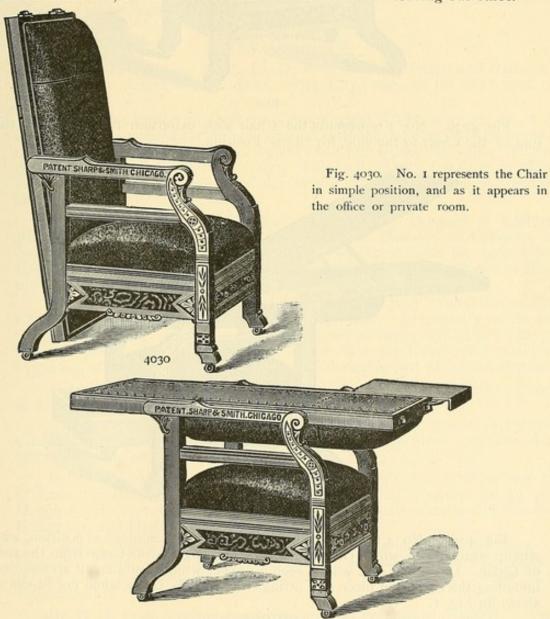


Fig. 4030. No. 2 represents the Chair turned over from the back. It can be so turned with the greatest ease requiring comparatively no exertion. In this cut is also shown an extension which is attached to the foot end, thereby making the chair in table form sufficiently long for any operation.

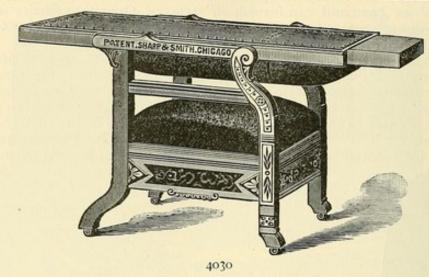


Fig. 4030. No. 3 represents the Chair with extension removed from the foot of the Chair to the side, for "Sims' Position."

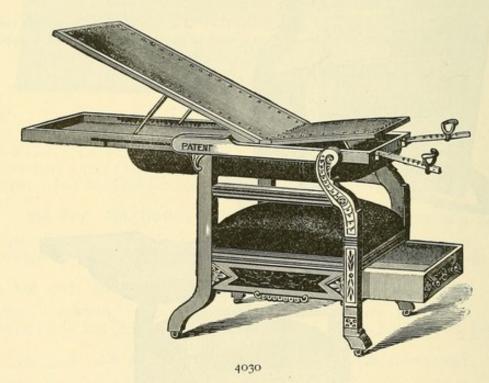


Fig. 4030. No. 4 represents the Chair in the Gynæcological position, with stirrup attachments, which can be placed at any angle or distance from the foot of Chair. Under the seat will be seen a drawer which contains all accessories, including the extension piece and fittings, leaving the Chair when not in use as shown in Fig. 1.

PRICES.

			fine plush\$55	
44	41	"	best leather 55 o	0
44	66	66	imitation leather 50 0	00

See preceding pages.

This Chair works without "Cranks," "Levers" or "Ratchets."

Any position can be obtained instantly, and it is movable in any direction with but the strength of one finger. A convenient Ottoman, and a leather-covered Hair Pillow accompany the Chair. In the short space of time that this Chair has been on the market we have had innumerable testimonials as to its superiority over others, and we submit a few herewith.

TESTIMONIALS.

A. C. Cowperthwaite, M. D., LL.D., Prof. Materia Medica and Diseases of Women, State University of Iowa, Iowa City, says in his Textbook on Gynecology:

"The latest design of chair for Gynecological Works, and the one, in my opinion, best calculated for that purpose, at least for the general practitioner, is the 'Combined Office and Gynecological Chair and Operating Table,' recently devised by Sharp & Smith of Chicago. This chair is very simple in its adjustment, is easily operated, and when not in use forms a handsome and comfortable office chair."

Dr. De Laskie Miller, Professor of Obstetrics and Diseases of Children, Rush Medical College, Attending Physician for Diseases of Children and Accoucheurs, Presbyterian Hospital, Attending Obstetrician St. Luke's Free Hospital, Consulting Physician Woman's Hospital, Consulting Physician Home for Incurables, says:

"Messrs. Sharp & Smith:—I have examined your 'Combination Easy Chair,' Gynecological Chair and Operating Table. It certainly excels anything I have ever seen on account of its being so easily and quickly changed from one position to the other, and I failed to find any complicated machinery to get out of order. Its simplicity is a very desirable part of its construction."

S. A. McWilliams, A. M., M. D., Professor of Clinical Medicine, College of Physicians and Surgeons, says:

"Messrs. Sharp & Smith:—I am better pleased with your Gynecological Chair than any other I have seen, on account of its neatness, simplicity, durability and usefulness."

Dr. D. W. Graham, Professor of Surgery Woman's Med. College, Professor of Emergencies Chicago Training School, Attending Surgeon Presbyterian Hospital and Central Free Dispensary, Secretary Illinois State Medical Society, Editor Chicago Medico-Historical Society, says:

"Messrs. Sharp & Smith:—I have examined your Combined Chair and Operating Table. For simplicity and ease of adjustment it has no superior. It has more good features than any chair I know of, and I can highly recommend it."

Dr. E. H. Pratt, Professor of Principles and Practice of Surgery, Chicago Homeopathic Medical College, says among other things in praise of the Chair:

"Your new Chair is a clever invention and cannot fail to more than satisfy the most critical of operators."

TESTIMONIALS.—Continued.

- Dr. D. A. K. Steele, Professor of Orthopedic Surgery (and also Secretary of) College of Physicians and Surgeons, Surgeon Cook County Hospital, says: "It is simply perfection."
 - P. M. Woodworth, M. D., attending physician Augustana Hospital, says:
- "Messrs. Sharp & Smith:—The new Surgeon's Chair is the most complete yet simple working chair it has been my privilege to examine, and the omission of cranks and springs is a great advantage. I consider it the best Gynecological Chair that I have seen."
- W. F. Knoll, M. D., Surgeon's Department Central Homeopathic Hospital and Free Dispensary; Professor of Minor Surgery, Physiology and Pathology Chicago Homeopathic Medical College, says:
- "Sharp & Smith:—I am very much pleased with the construction and operative qualities of your Surgical and Gynecological chair. It is a decided improvement in the right direction, and I am certain that any physician who has the pleasure of using it will bear testimony to its perfection."
 - Dr. Norval H. Pierce, under date of December 6, 1888, says:
- "I consider the Sharp & Smith Operating Chair and Table the most perfect combination of practical usefulness, strength and elegance thus far offered to the surgeon."

We refer also to the following doctors, who appreciate, among many others, the superior qualities embraced in our Chair:

- A. L. Clark, M. D., Prof. of Obstetrics and Diseases of Women and Clinical Gynecology at Bennett Medical College, Gynecology Bennett Hospital, Professor Diseases of Women Bennett Free Dispensary, Member State Board of Health.
- A. E. Hoadley, M. D., Professor Anatomy College of Physicians and Surgeons, Professor of Surgery, Chicago Polyclinic.
 - A. L. Cory, M. D., Chicago, Surgeon of L. S. & M. S. R. R.
 - H. Wardner, M. D., Supt. Illinois Hospital for Insane.
 - Dr. G. W. Nesbitt, Sycamore, Ill.
- Dr. Jno. E. Owens, Professor of Surgical Anatomy and Optical Surgery, Chicago Medical College, Attending Surgeon St. Luke's Free Hospital.
- Dr. Charles Gilman Smith, Consulting Physician to Presbyterian Hospital, and Chicago Hospital for Women and Children.
- F. L. Wadsworth, M. D., Physician in charge St. Joseph's Hospital, Professor of Physiology Woman's Medical College.

SHARP & SMITH,

MANUFACTURERS, IMPORTERS AND DEALERS IN

SURGICAL INSTRUMENTS AND APPLIANCES, 73 Randolph Street, CHICAGO.

DE PEW OPERATING CHAIR.

FIG.						
*4031	No. I	and 2,	DePew	Chair	Upholstered in best leather\$55	00
*4031	- 46	"	44	**	" in fine monair plush 60	00



CONVERTIBLE OPERATING CHAIR.

Chair in an Upright position. (Patented.)

DE PEW OPERATING CHAIR.

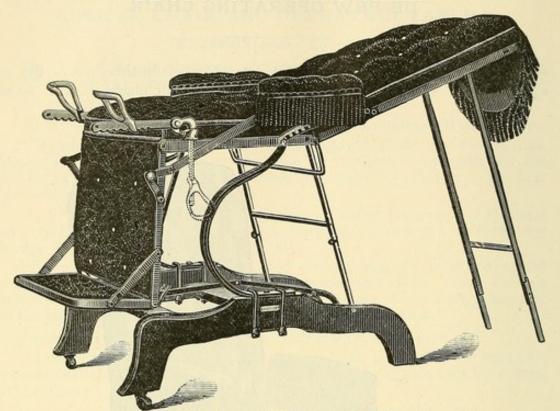


Fig. 4031. CONVERTIBLE OPERATING CHAIR.

In position for Gynæcological Operation.

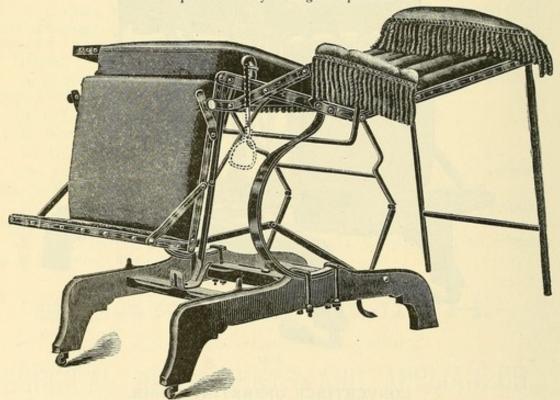


Fig. 4031. CONVERTIBLE OPERATING CHAIR. Seat raised for Sims' Position.

THE ARCHER GYNÆCOLOGICAL CHAIR.

FIG.			
*4032	The Archer Chair complete, with Seat Extension and Platform Step \$	60	co
4033	Leather Pillow to match, extra	5	00
4034	Foot Supports for Lithotomy position, extra	5	00
4035	Oculist Head-Rest, extra	10	00
1036	The Archer Chair complete with Seat Extension and platform Step and Head-Rest.	70	00

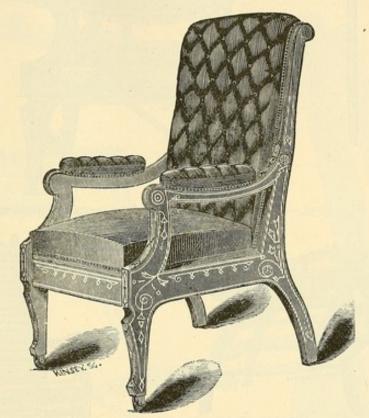


Fig. 4032. THE ARCHER CHAIR.

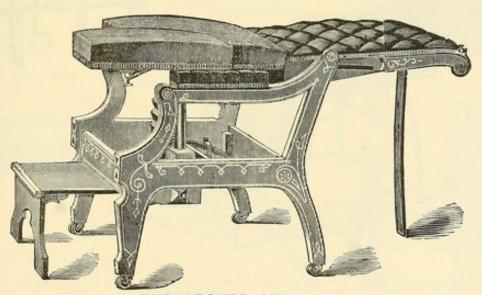


Fig. 4032. THE ARCHER CHAIR, (Sims' position).

GYNÆCOLOGICAL-CHAIRS.-Continued.

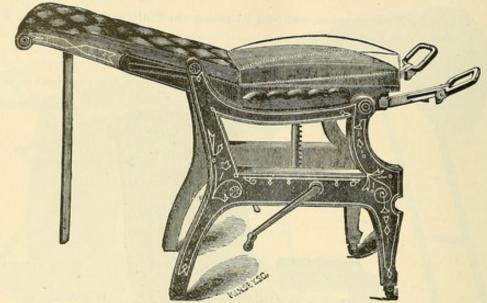
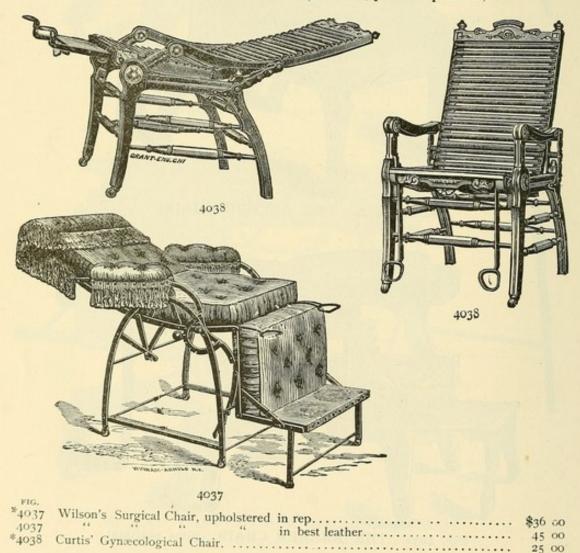
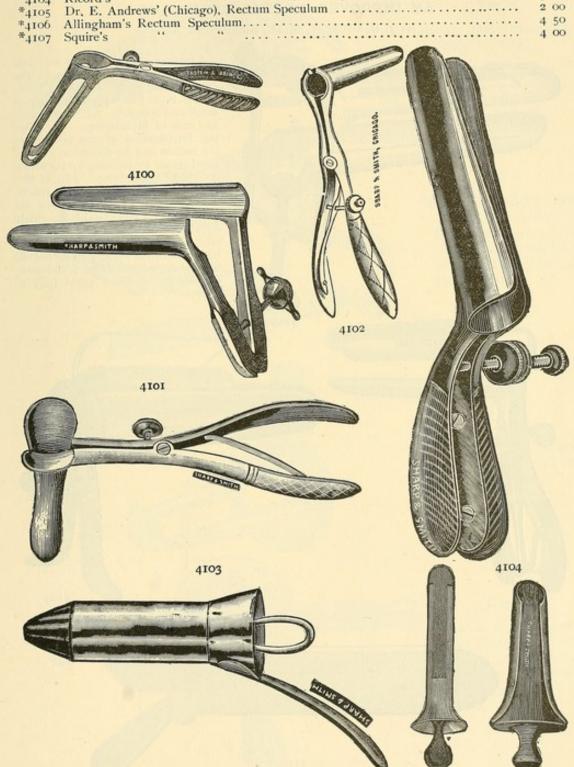


Fig. 4032.—THE ARCHER CHAIR (speculum position).



RECTAL INSTRUMENTS—SPECULUMS. Bivalve Rectum Speculum Fenestrated.

*4100		\$3 00
*4101	O'Reilley's Bivalve Rectum Speculum	2 50
	Bodenheimer's " "	2 50
	Leonard's " " (flange)	2 75
*4104	Ricord's " "	3 00
*4105	Dr. E. Andrews' (Chicago), Rectum Speculum	2 00
*1105	Allingham's Rectum Speculum	4 50
	Squire's " "	4 00
4107	Squites	161 00100



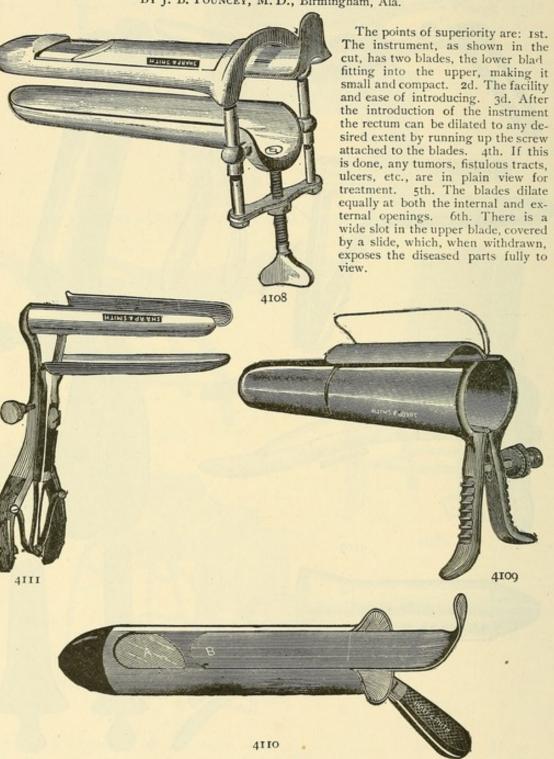
4105

RECTAL INSTRUMENTS-SPECULUMS.

FIG.		
*4108	Dr. J. B. Pouncey's Rectum Speculum.	\$10.00
*4100	Haslam's Rectum Speculum	φ10 00
4109	rasam's Rectain Speciality	3 50
T4110	Aloe s	
#	T. & Co,'s Three Blade Rectum Speculum.	5 00
4111	1. & Co. S I free Diade Rectum Speculum	7 50

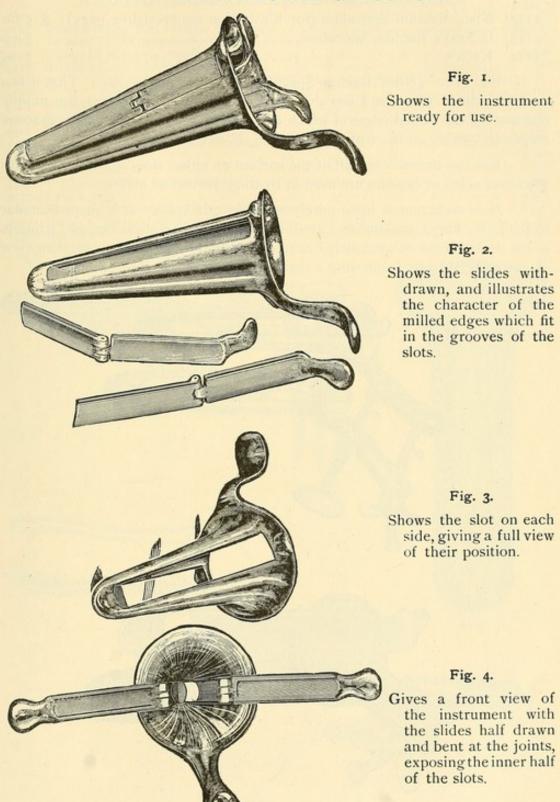
AN IMPROVED RECTAL SPECULUM.

By J. B. Pouncey, M. D., Birmingham, Ala.



See Pratt's Instruments, beginning page 691.

THE NILES RECTAL SPECULUM.



4112-For description see next page.

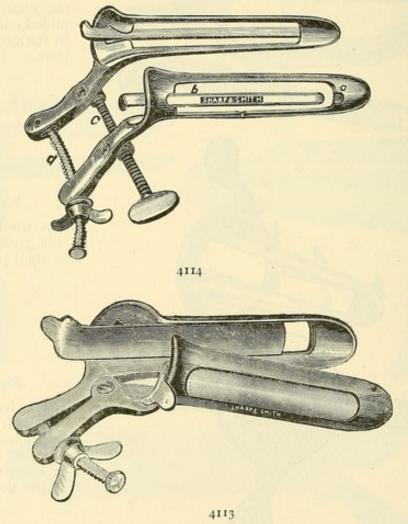
RECTUM INSTRUMENTS-SPECULA.

*4112	Niles' Rec	tum S	peculum (fo	ri	illu	str	atio	n s	ee	pre	ced	ing	g p	age	.)\$	5	00
*4113	O'Neal's I	Rectum	Speculum.													5	00
*4114	Keen's	"	"													5	25

Fig. 4112 (Niles' Rectum Speculum.) Its advantages are: That it is a double inclined plane, and has double slides hinged in the center, the unique character of the milled edges of which make it impossible to wound the mucous membrane, either on the withdrawal of the slides or instrument.

You can expose one-half of the surface on either side, which is necessary whenever acids or caustics are used in treating fissures or ulcers.

It is constructed upon purely scientific principles. It is shaped similar to the index finger, making its introduction easy for the physician, and painless to the patient, even in extremely irritable conditions, and gives a complete view of the parts, thereby facilitating a ready diagnosis of the case.

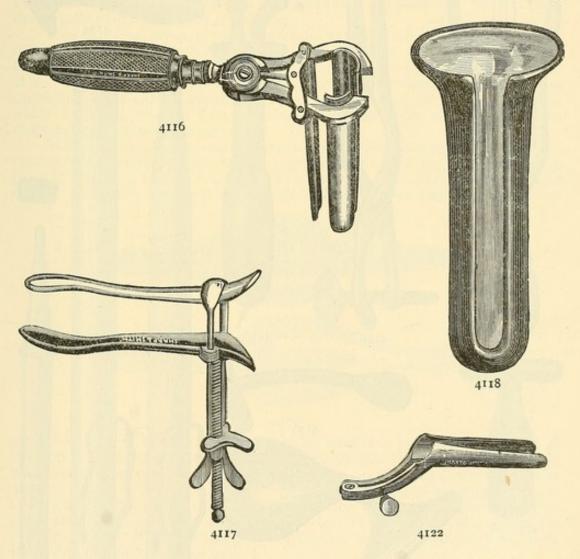


See Pratt's Instruments, beginning page 691.

All instruments designated by a * are illustrated.

R	F	C	ΓA	I.	IN	ST	RI	IME	NT	S-	SP	FCI	III	JMS.
7,	_	· .			441	- L		TITLE	T A 7		-			O TAT O.

PIG.		
4115	Yount's Wedge End Rectum Speculum	00
4116	Frivalve Trellis Rectum Speculum 12	00
4117	Thebaud's Sphincter Ani-Dilator 7	
4118		75
4119	" " " metal lined I	50
4120	" Trivalve " 6	00
4121		50
	Williams' Rectum ' 3	00
		50
4123A	Weiss' three blade Rectum Speculum	00
4124	Sass' Bivalve	50
4125	Sharp & Smith's " " 2	50
4126	Fenestrated Hard Rubber Rectum Speculum, set of 4	00
	Lane's three blade	50
4128		50
4129	Kelsey's Rectum Speculum	50
4130	Helmuth's " " 2	75

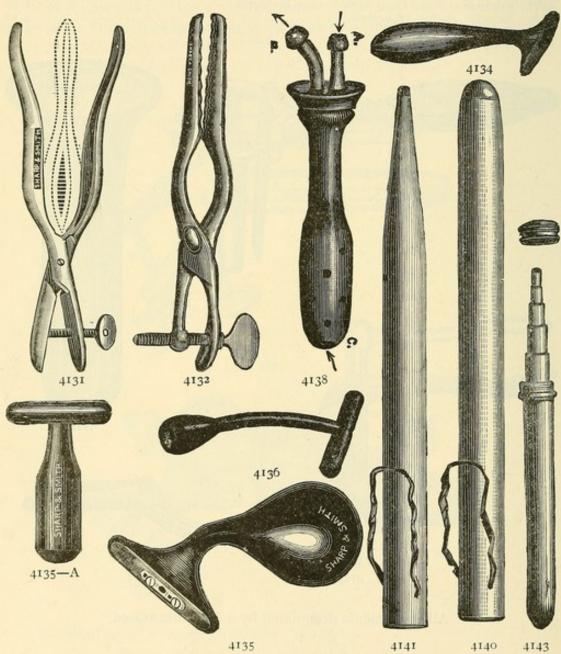


All instruments designated by a * are illustrated.

See Pratt's Instruments, beginning page 691.

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Piller		
*4131	Sims' Rectal Dilator	83 40
*4132		3 75
4133	Little's Rectal Dilator	9 00
*4134	Bolton's Pile Plug	ge
	Trosseau's " "	1 50
	A Plain H. R. Pile Plug	90
*4136	Reed's Pile Plug	1 00
	Kent's " "	1 50
*4138	Bodenheimer's Rectal Irrigator	2 2
4139	Munde's "	1 90
*4140	Cylindrical "Bougies, t to 12, each	75
*4141	Conical " 1 to 12, "	1 00
	Olive Tip " " I to 12, "	1 2
*4143	Hard Rubber " set of six in Hard Rubber Case	3 5
4144	Bodenheimer's Set of 10 Exploring Bougies	7 50
		THE PARTY OF THE P



See Pratt's instruments, beginning page 691.

RECTAL INSTRUMENTS.—Continued.

A Rectal Plug for Senn's Method of Insufflation of Hydrogen Gas.

BY A. H. MEISENBACH, M. D., St. Louis, Mo.

In repeating Dr. Senn's experiments, of insufflation per rectum of hydrogen gas, I found considerable difficulty at times, to prevent the gas from escaping out of the rectum, using the ordinary syringe tip. I found this to be the case in experimenting on dogs, and also on the human cadaver.

Dr. Senn recommends in his paper on "Insufflation of Hydrogen Gas per Rectum," etc., that "an assistant hold the margin of the rectum around the

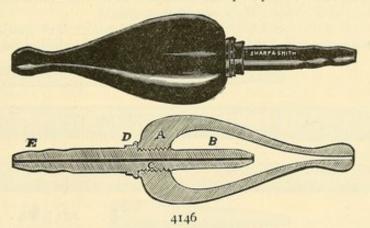
syringe tip.'

In order to obviate the inconveniences of an ordinary syringe tip, and do away with the need of an assistant in controlling the margin of the rectum, I

devised the herein described rectal plug.

This plug has given great satisfaction, having used it in applying Senn's test in four cases of gunshot wounds of the abdomen which were brought to the City Hospital, and in a case of obstruction of the bowel due to the rupture of a Fallopian pregnancy, where obstruction was produced by an immense coagulum—later case occurring in private practice of Dr. Hornsby, and in which I applied "Senn's Test," demonstrating the value of this measure in diagnosing intestinal obstruction.

In the above applications of Senn's test the plug completely plugged the rectum, and effectually prevented the regurgitation of the gas, and allowed the gas bag and plug to be controlled by one person. The plug is made of hard rubber. The annexed cut shows a half size perspective and sectional view of



plug. "A" represents cone-like plug, with tip similar to ordinary syringe tip. B is a hollow chamber in plug into which extends tip E, on which is a thread which screws into plug as shown at C. At D on tip E is a square shoulder and a round collar. The square shoulder is for the purpose of allowing a wrench to be used to tighten the tip into plug. Between collar on plug and collar on tip at D a washer is used, so as to insure perfect air-tightness. The end of Tip E which projects outside of plug is corrugated, so as to easily and tightly fit into rubber tubing from gas bag.

I have found that pouring a little sweet oil into chamber, through opening in plug into chamber, in a measure prevents the liability to clogging, as the oil lubricates the sides of opening and facilitates its being readily blown out by pressure from the gas bag.

*4147	Philip S	Wales	Soft	Rubber	Rectal	Bougies,	Nos.	3 and 4, each\$	I	15
*4147	"	"	"	**	**	"	"	5 and 6, "		50
*4147	"	"	66	66	66	"	66	7 and 8, "		00
*4147	44	"	"	"	"	- 66		9 and 10, "		25
*4147	44	**	"	"	44	"		11 and 12, "		75

The price of Bougies quoted above refers to the style shown in cut No. 7, Figure 4147. The circular cut marked "actual size," will assist greatly in ordering.

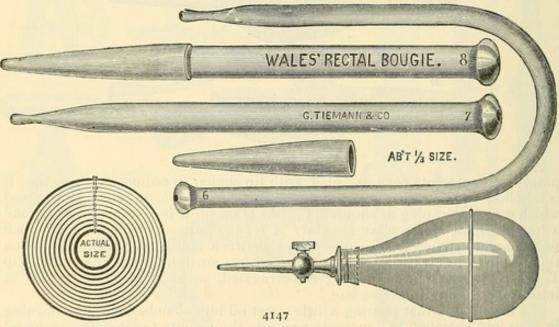
*4148	Sharp &	Smith's	Hard	Rubber	Pile	Pipe, small\$ 1	25
4149	44	44	"	"	66		50
4150	"	"	44	"	"	Cinter out was buttle	50
4151	Seeley's		**	"		Pipe 1	
4152	44		66	"	44	Cinton and man basel	50

STRICTURE OF THE RECTUM.

BY PHILIP S. WALES, M. D., Washington, D. C., Surgeon-Gen. U. S. N.

* * With the view of obviating all possible objections to mechanical dilatation, I devised, for the first time, in 1876, rectal bougies made of pure gum (not, as heretofore, of gummed cloth webbing, or other materials), of exceeding flexibility, smoothness and varying in size. A conduit runs through the center, and terminates in the point of the bougie, for the purpose of commanding a stream of water that might be required at any moment to facilitate the introduction of the instrument. The points of the bougies are made in various shapes, spherical, conical, and olivary, with a view of meeting the necessities of special cases. The surface is perfectly polished, which, by reducing friction, increases the facility of introduction, and eliminates the unpleasant sensation of dragging caused by a rough instrument.

The method of introducing the bougie is simple. The patient, after the bowels have been cleaned out by injection, is placed, reclining on his left side,



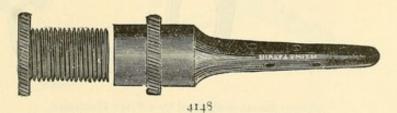
upon an ordinary operating table, the thighs flexed, and the buttocks just overhanging its lower edge. The smallest sized instrument likely to pass the stricture

is smeared with grease, its point inserted into the anus, and gently pushed onward in the following manner: The right hand grasping the bougie close to the anus, the whole perineum is pressed upward, which will advance the point of the instrument; the left hand now steadies it, while the right is slid downward for a lower hold, the perineum, of course settling with it; the bougie is again pushed forward in the same manner until the obstruction is passed. I have occasionally found that this manœuver may be greatly facilitated by sinking the fingers of the left hand deep into the left iliac region, and drawing upward, as though an effort was being made, so to speak, to stretch out the sigmoid flexure, while pressure is made at the same time upon the bougie in the manner described. Another practical point of prime importance is to employ a stream of water, as warm as can be comfortably borne, propelling it through the conduit of the instrument, whenever its point is arrested from any cause. The water, flowing from the distal aperture, will distend the bowel, efface its folds, and break down any hardened feeces which may exist, obstructing the ascent of the bougie. An assistant may manage the syringe, throwing in the water in such quantities as may be needed, while the operator is engaged with the bougie. It must be borne in mind, however, that no great volume should be used at once, otherwise the bowel will be excited to energetic contraction, and compel the instrument to be withdrawn before it has been properly lodged. In preliminary trials, the bougie may be permitted to remain two or three minutes, and afterward, when greater tolerance is established, a longer stay may be allowed. I rarely exceed five minutes in any case, even when the patient makes no complaint of irritation or pain. After several introductions of one size of a bougie, say number seven or eight, the next largest may be taken, and so on until the stricture has been sufficiently dilated.

The application of the instrument may be repeated twice or thrice a week, according to circumstances, such as the irritability of the rectum, temperament of the individual, and inter-current attacks of diarrhæa or other trouble. Twice a week, in my experience, suffices in most cases; a fortunate issue, if attainable, can only be brought about by patient and prolonged treatment.

Rudeness or violence inflicted with a view of hastening the case, can effect nothing but harm, and may jeopardize the life of the patient. If the instruments be hastily thrust into the bowel it may be perforated, especially in those cases in which inflammatory softening or ulceration exists; or if it be too large, the rectal mucous membrane may be ruptured, giving rise to smart hemorrhage; or the entire wall of the bowel may be ruptured into the peritoneum, an accident that is pretty sure to be followed by peritonitis, with all of its attendant dangers. But these funest consequences are infinitely less liable to follow the use of India rubber bougies than any other sort, for certainly, a priori, nothing could furnish a milder, more equable and less dangerous force than these and experience shows this to be the fact.

It often happens that after the most patient devotion to this method of treatment, the bowels do not regain their functions, even after the largest size bougie has been passed with ease. This result is due in part to long continuance of the expanded condition of the bowel above the stricture, by which its muscular walls have been more or less paralyzed.



RECTAL INSTRUMENTS-CLAMPS. FIG. *4153 Smith's Hæmorrhoidal Clamp..... *4154 Rockwell's 6 50 *4155 Nott's 4156 Amusat's 6 00 Jones' Parallel " 9 00 4157 Langenbeck's 4158 3 75 4153

All instruments designated by a * are illustrated.

4155

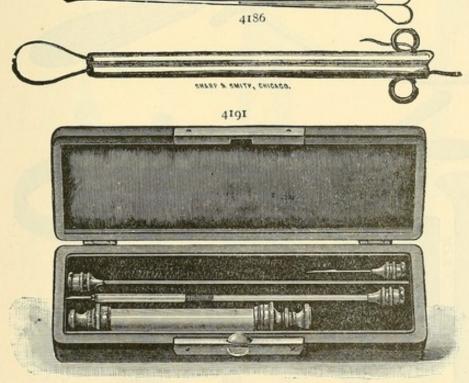
4154

	CTAL INSTRUMENTS—CLAMPS AND FORCEPS	3.
4159 4160 *4161	Allingham's Hæmorrhoidal Clamp\$ Baker Brown's "	9 00
*4162	Hæmorrhoids	3 75 2 25
*4163 *4164		3 25
*4165 *4166	Allingham's Scissors and Director for Fistula in Ano	5 25 1 90
4167	Bodenhamer's Rectal Irrigator	2 25 I 00
416	4161 000 4164 4163 4162	3

RECTAL INSTRUMENTS. 4169 4170 Bush's Ligature Carrier..... 4171 4172 Lente's Plain I 00 4173 Ostrum's 4174 4 00 Helmuth's " 4175 2 75 *4176 2 25 Hutchinson's Ligating Needle.. 3 75 4177 *4178 " " Whitehead's I 30 Bodenhamer's Knife for Anal Fissure 4179 3 75 *4180 Kelsey's 4181 Blandin's 6 00 4182 5 25 " " Anal Fistula..... \$ 5 25 4183 *4184 Tillaux's Forceps for Recto-Vaginal Fistula.. 3 50 *4185 Bush's Pile Needle-Set 4176 4180

4185

F I Con			
*4186	Dr. Larney's Silver Probe and Director for Anal Fistula\$	1	75
4187	Delicate Silver Probe		60
4188	Delicate (pure) Silver Probe		85
4189	Flexible Silver Director Probe Point	1	10
4190	Wales' Explorer	1	60
*4191	Gooch's Plated Double Canula	1	00
*4192	" Silver " "	2	00
*4193	Sharp & Smith's Hæmorrhoidal Syringe	3	50
4193-A	Adams' Hæmorrhoidal Syringe		00
*4194	Sharp & Smith's Silver Hæmorrhoidal Needle	1	00
*4195	Sharp & Smith's Rectal Curette.	1	85
4196	Van Buren's Ligator		00
4197	Rectal Scarificator	-	00
4198	" Insufflators	1	50
4199	Bodenhamer's Rectal Exploring Sound, Set of 10		50
4200	Vertebrated Recto-Colonic Exploring Sound	-	00
4201	O'Berne's Rectal Tubes	1	00
4202	English " "	1	15
4203	Soft Rubber Colon Tubes		15



4193

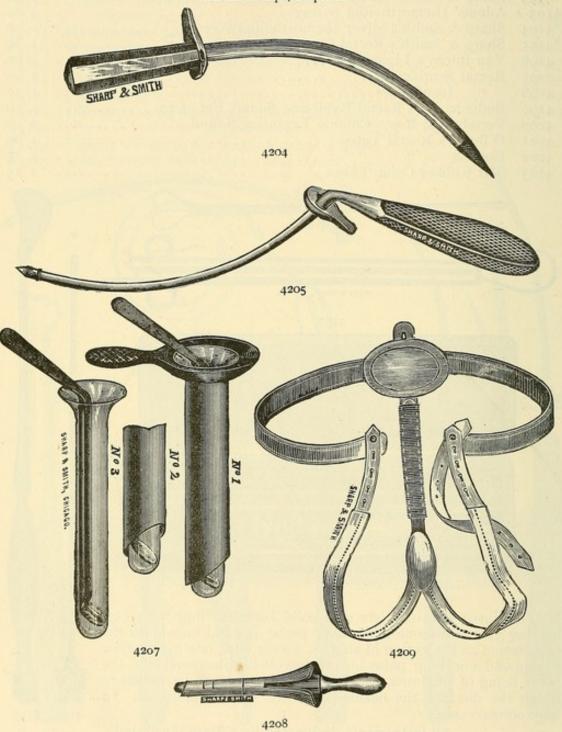
This instrument consists of a solid barrel syringe with cap, holding 35 minims, one pure silver probe pointed canula for the exploration and injection of sinuses, fistulæ, etc., one hypodermic needle and one long point for the injection of hæmorrhoids, the point being of platinum, and having a screw cover by means of which the distance the needle is inserted can be regulated. In fine morocco case.

All instruments designated by a * are illustrated.



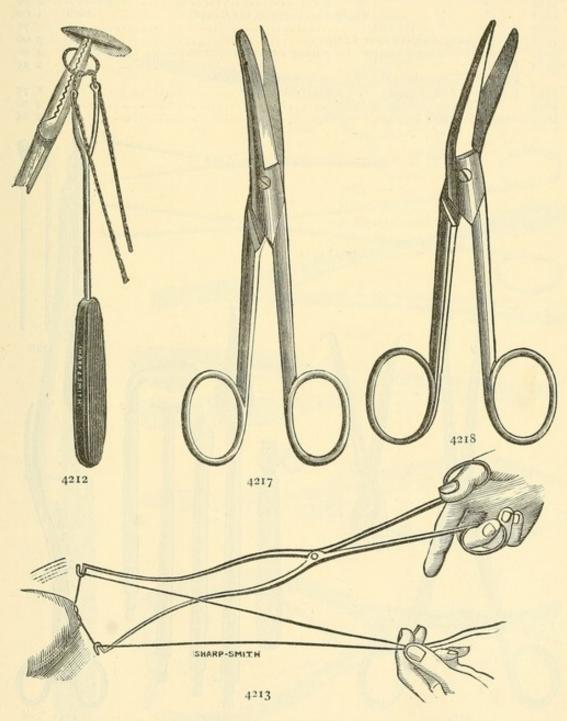
4194 4195

FIG.			
*4204	Curved Rectal Trocar	\$1 5	50
*4205	Buck's " "	3 5	50
4206	Exploring " (see amputating instruments)	. 0	00
*4207	Skene's Hard Rubber Endoscopeseach	2 0	0
*4208	Plain " " " " " " " " " " " " " " " " " " "	1 3	30
*4209	Prolapsus Ani Truss	3 7	75
	Rectal Porte Caustique		
4211	Pins for transfixing hæmorrhoidal tumors	2	20
	Enome Dumpe all prince		



Instruments designated by a * are illustrated.

N. A.L.																		
*4212	Dr. Chas. D. Se	cudder	s K	not	Ty	er.	 			8	1	50						
*4213	Carroll's Knot	Tyer					 				I	85						
	Allingham's So																	
4215	Saw Tooth						 				4	50						
4216	Bush's Pile						 				I	15						
*4217	Angular Curved on flat					• • •	 	 	 	 	 	 	\$1	0	o t	0	2	50
		44																
4219	David's						 	 		 	 	 	 				3	00



Instruments designated by a * are illustrated.

	RECTAL INSTRUMENTS.	
FIG. 4220	Suture Needles, ordinary,per doz.,	\$0 60
4221 4222	Self Threading Needles. " Hagedorn's Needles, flat. "	I 25
4223	Silver Wire "each, For cuts of above, see Amputating Instruments.	20
*4224 4225	Cautery Irons, set of 4.	4 25 3 00
*4226 4227	Thomas' Cautery Irons, set of 3	3 35 4 50
4228 4229	" Handle	75
4230 *4231	Self Blowing Cautery Iron Lamp. Byrnes' Tenaculum Forceps, for pulling down the rectum	3 00 4 50
*4232	For Other Tenaculum Forceps, see Uterine Instruments.	2 25
*4233 4234	Rectal Dressing Forceps, with catch	4 50
4235	Ashton's Rectal Polypus Forceps	2 25
-		1 4
		11
	SHARP & SHITH, CHICAGO.	
6	4232	
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		4226
		4-2-
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		III
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		1
4		

All instruments designated by a * are illustrated.

4231

4233

A FEW NEEDLE HOLDERS.

FIG.																			
*4236	Sims'	Plain	Needle	Holder	 	 	 			 		 					 . 8	I	85
*4237	Emmets'		**		 	 	 	 	 	 		 						2	25
	Russian		**		 	 	 	 	 	 								3	00
	Reiner's		**		 	 	 	 	 			 						3	00
	Hagedorn'		**		 		 	 							*			5	50
*4241	Ethridge's		"	"	 	 	 	٠.	 						٠.			3	75

For Other Needle Holders see index.

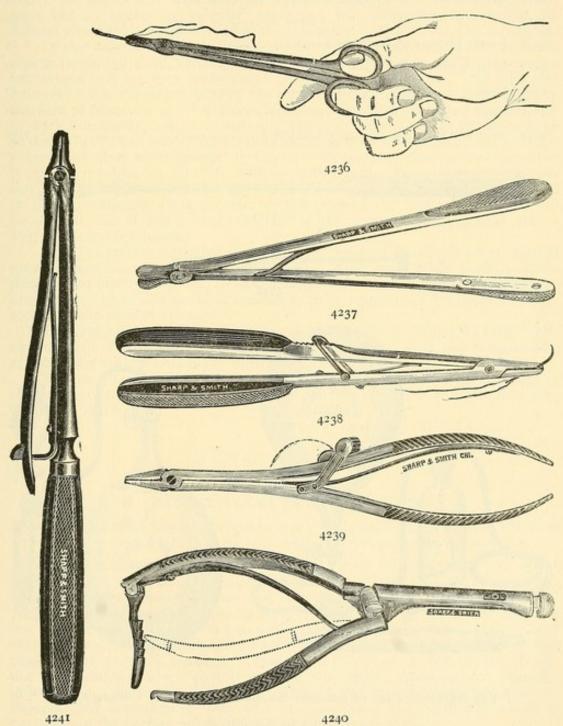
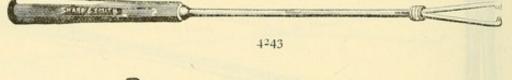
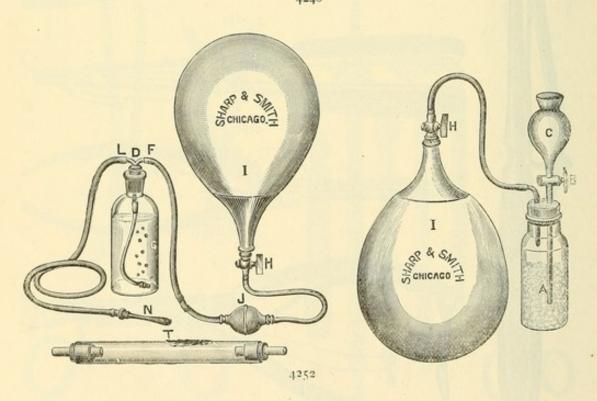


FIG.		
4242	Rectal Sponge Mop Holder \$	75
*4243	" Holder	75
4244	" Brush Holder and I dozen Brushes 1	50
4245	Glass Brushes for making applicationseach,	20
4246	Hutchinson's Ointment Syringe 3	00
4247	" " 3 pipes 4	50
*4248	Lente's Platina Cup for fusing caustics	2 25
4249	Silver Artificial Anus	00
4250	Small H. R. Suppositors	40
4251	Large " "	50
±4252	Sharp & Smith's Gas Apparatus (complete)	7 50







The Administration of Gaseous Enemata, for Cure of Consumption.

Send for Circular.

PROF. PRATT'S RECTAL INSTRUMENTS.

In introducing to the medical profession the Rectum Speculum, Scissors and Hooks, which I have recently invented, I desire to call attention to some of the peculiar advantages these instruments possess. In the first place, as the most important pathological conditions in a rectum are situated about an inch above the anus, on a level with the upper border of the internal sphincter, none but an expanding valvular instrument will sufficiently smooth out the natural rectal folds so as to render the discovery of these conditions possible.

In the next place the bulbous extremity of the instrument, for the same reason that a fair sized urethral sound passes easier than a small one, can be introduced with the very minimum of discomfort to the parts. This bulb also holds back the expanded part of the rectum above the sphincter and enlarges the field of observation. The Speculum is self-retaining, enabling the operator to work if necessary without assistance, and is so constructed as to secure when so desired sufficient stretching of the sphincter, thus saving the operator much subsequent effort with thumbs or fingers. By partially closing the Speculum it can be revolved at pleasure without withdrawal. Piles, ulcers and fistulæ can also be easier treated through this than through any other devices. Add to these qualifications the remarkably low price of the instrument, and it will be evident that at last a long felt want of the profession is supplied, viz.: a Perfect Rectal Speculum.

The Tenaculum is needed for seizing for removal papillæ or other morbid growth, pendulant mucous membrane, etc. The small blunt hook is indispensable in discovering and raising for removal rectal pockets. The Scissors are constructed in this peculiar manner so as to remove the hand of the oper-

ator from the field of vision.

The original article upon rectal *pockets* and *papillæ* or *fringes*, by Prof. Pratt, also the cut illustrating their situation and manner of detection is appended, as some may still be unfamiliar with them.

Messrs. Sharp & Smith have made all the above mentioned instruments for me in a very workmanlike manner, and at my request have made the price within the reach of all.

Yours truly,

E. H. PRATT, M. D., Central Music Hall, Chicago.

RECTAL POCKETS AND FRINGES.

A Paper read before the Illinois State Homocopathic Association, Peoria, in 1885, by Prof. E. H. Pratt, A. M., M. D., LL. D., of the Chicago !Homocopathic Medical College.

They are as common as piles; more prolific of mischief than you would believe without a special acquaintance with them, and still they have been

hitherto almost unknown to fame, and very much neglected.

Our current literature contains little or no mention of them, and only in a few isolated places in medical lore will you find any indication that they have ever been even discovered; and nowhere, so far as I am aware, are they well described or properly noticed. This paper, therefore, is but an act of justice to a condition which should have received earlier attention, and although in itself but a feeble effort, it is to be hoped that it will inaugurate a line of thought and investigation that will in time place the complaint where it belongs—in the regular index of all standard surgical works.

PROF. PRATT'S RECTAL INSTRUMENTS—Continued.

Your attention is called to the mucous membrane at the upper border of the internal sphincter, just where the enlarged middle third of the rectum is puckered to the smaller limits of the lower third.

Through an expanded trivalve speculum the lower third will appear as a short, straight, smoothly distended canal ending above in a well-defined border, beyond which is seen the plentiful folds of the middle portion crowding into the upper part of the speculum, and completely obstructing a farther view.

This narrow edge is sometimes smooth and unbroken, but sometimes is ornamented with a few thickened prolongations of mucous membrane—coneshaped, very pointed and sensitive at the apex, which is free—very broad and thick at the attached base. These papillæ vary in number from one to five or six—and in length from a line to one-half inch, and are not unlike in appearance the broken relics of a hymen.

If no one can suggest a better name let us call them a *fringe*. They are always sources of irritation and should be removed. Transfix them one by one with a tenaculum and with a pair of long scissors snip them off at their base. Each one contains a small artery which requires no attention, as the bleeding ceases spontaneously upon the removal of the speculum.

These papillæ or fringes are not found in every rectum, but are common, and when present should be treated as above. This is the first of the two neglected conditions which it is the object of this paper to introduce.

The second one—the pockets—is more important, more unobserved, and consequently more neglected than are the fringes. These pockets are simply small blind canals, from one-eighth of an inch to an inch in depth, and their number varies from one to eight or ten in cases troubled with them. Their mouths are in the same situation at the bases of the papillæ; in fact, there will often be found two starting from the base of a papillæ, one on each side, running parallel with each other, but separated always by a partition. Their direction is always toward the anus and they are very superficial, hugging the mucous membrane closely; their caliber is often sufficient to entertain a uterine sound, but they are usually smaller. The bottom of these pockets is usually very sensitive, the patient often flinching, even when partially under ether, as soon as the bent probe touches it. Several times I have entered a pocket with a probe, bent in the shape of a fish-hook, raised it slightly and with a pair of scissors snipped it out. Upon then removing the amputated pocket from the probe, over which it fitted like the finger of a glove, I have carefully turned it inside out, and examined its lining, finding it to resemble ordinary mucous membrane except at the very bottom, where there is usually found a small spot of ulceration. This last fact explains the ease with which, many times, the probe, during an examination of them in situ, will often pierce the bottom of a pocket and passing readily through the loose areolar tissue under the mucous membrane, will burrow to the anus itself. The operation of snipping them out is so simple and slight that ether is unnecessary, except in very nervous patients, or in those who would be poor subjects for the local application of cocaine. Do not confound these pockets with blind, internal fistulæ, as they are not the product of abscesses, are never tortuous, never inclose the sphincter, and their lining is mucous membrane. They doubtless frequently result in fistulæ, but cannot properly be so considered in the state in which we are considering them.

So irritations of the rectum, be they ulcerations, hæmorrhoids, erosions, prolapsus, pockets or fringes, can write their story of distress upon the feet, limbs, back, bladder, uterus, urethra, kidneys, liver, stomach, heart, head, face or coats of the bloodvessels, as suits their pleasure. I do not regard the exam-

PROF. PRATT'S RECTAL INSTRUMENTS-Continued.

ination of a case of insomnia, neuralgia, nervous prostration, general debility or functional derangement of any one or all the organs of the body as thorough or complete, without a careful exploration of the lower two or three inches of the rectum. The conditions of hæmorrhoids, ulcerations, etc., are so fully understood and appreciated, that it seems best in this paper to neglect consideration of them, so that the pockets and fringes could have a little of the attention so long denied them.

Permit for illustration the brief mention of two cases:

r. A bright little lady came clear from Denver, Col., to be relieved of severe congestive headaches occurring once or twice a week, and of a long established habit of constipation. Four papillæ were removed and three pockets laid open soon after her arrival, and to my own delight the habit of constipation was entirely removed, and the headaches improved in two weeks' time; and although medicines were given and suppositories were used, from what I have seen accomplished with them in previous cases, I do not believe I am

unfair in ascribing the cure to the operations.

The second case is one of the most remarkable it has befallen me to care for. A prominent lawyer of Chicago, a man standing six feet and two inches, and weighing over two hundred pounds, called to be examined for a life insurance. He appeared well in every particular, except feeling tired, sleeping poorly, and having a heart beat of 94 strokes per minute. He used neither liquor nor tobacco. He was informed that the rate of his heart's action would exclude him from present insurance, and he was referred to his family physician to reduce the rapidity of his pulse. He crowded me so hard to explain the condition that at last I began more thoroughly to investigate his case. The cold hands and feet and the pulse rate pointed to a weakened state of the sympathetic nerve. His mouth and teeth were all right. His tongue showed no signs of distress in stomach or liver-the urine was normal. An exploration of the rectum was then begun, with a view, chiefly, of ascertaining the size of the prostate gland, as he positively denied any rectal irritation or irregularity. Upon the mere introduction of the finger, the man became ashy pale. The prostate was normal, but the speculum revealed a few superficial abrasions of the mucous membrane and a few pockets and papillæ. The spots were carefully touched with 95° carbolic acid and a cotton tampon inserted. Everybody has seen the white alæ nasi and mouth caused by pin worms, or other rectal troubles. Imagine this same dead white painted over the whole face and the entire skin surface beaded with drops of cold perspiration, and you will have a fair image of the appearance of the patient as he wearily arose from the operating chair. Suppositories and medicines continued for a space of three weeks failed to reduce the pulse, but improved the color of the rectal mucous membrane, and prepared him for more radical work. Under ether two papillæ were cut off and four pockets slit up and the sphincter thoroughly paralyzed.

In twenty-four hours a report from the attending physician in whose care he was left (as he lived out of town too far for me to care for him) pleased me by recording his temperature as only 99° and his pulse at sixty beats per minute. A few days of rest sufficed to heal the wounds and start him well on the road to recovery. His pulse rebounded to 68 or 70, but no farther, when quiet—and he resumed his work with more vigor and life than he had known for years. I have not fairly painted his weakened condition when the case was undertaken. For several years he had been able to work but four or five hours a day, and he spent three months of last summer in Germany in search of health, which he did not succeed in finding, and he was just about abandoning his business for some out of door employment, supposing his case was one of brain-fag,

which only prolonged rest and change of occupation would cure.

AFTER TREATMENT OF RECTAL OPERATIONS.

By E. H. PRATT, M. D., CHICAGO.

From The Medical Era.

The after-treatment in rectal troubles has necessitated the invention of two new instruments, and at the request of the MEDICAL ERA and many friends, I will briefly explain their use.

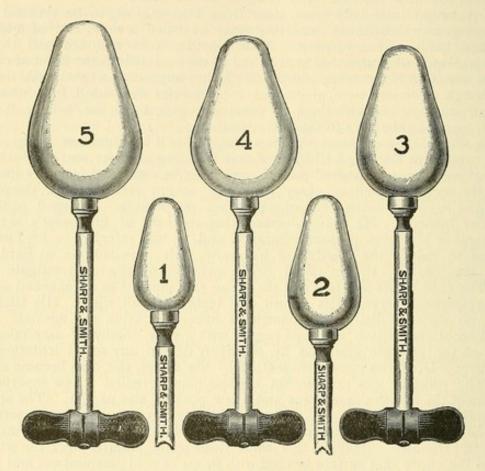


Fig. 4253.—PRATT'S RECTAL DILATORS.

The first invention is a set of graded Rectal Dilators, five in number, and varying in diameter from ¼ an inch to 2 inches. I regard them as almost indispensable for fine rectal work. If any one thinks he can operate on a case at one sitting and dismiss it as cured without subsequent attention, he is doomed to repeated disappointments. Occasional experiences of this happy nature will sometimes occur, but they are exceedingly rare.

After all forms of operations upon the rectum, particularly those involving extensive destruction of mucous membrane, no matter how thoroughly the sphincters may be stretched at the time, they are sure to regain their tone before the soreness disappears, and again contract to such a degree as to bring on a temporary return of old reflex troubles, or, possibly, of new ones. Dilatation at this time is essential to success, and since the bowel is still sensitive, fingers and thumbs and speculums cause such discomfort as to be decidedly objectionable; besides bruising the parts into a soreness that may take much time to remove.

It is the same objection which I have previously raised against all valvular uterine dilators, and which induced me to add the larger sizes of female sounds to the small numbers in use.

DR. PRATT'S RECTAL INSTRUMENTS.

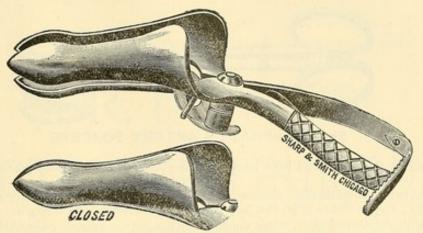


Fig. 4254.—PRATT'S SPECULUM.

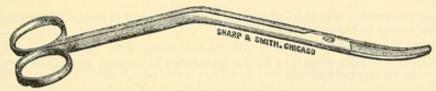


Fig. 4256.—PRATT'S SCISSORS.

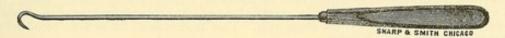


Fig. 4257.—PRATT'S TENACULUM.

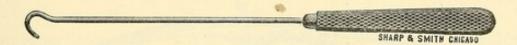
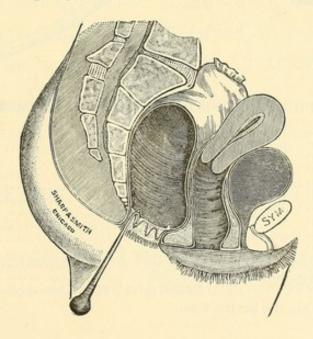


Fig. 4258.—PRATT'S BLUNT HOOK.



PROF. PRATT'S RECTAL INSTRUMENTS-Continued.

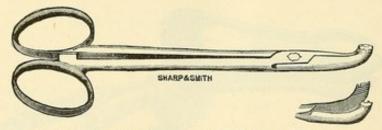


Fig. 4259-PRATT'S ARTERY FORCEPS.

To escape this dilemma, I have invented these round, polished, graded pear-shaped Rectal Dilators.

I am glad to chronicle their success. They give so little pain, they dilate so evenly and thoroughly; they bruise so little, that they relieve soreness instead of causing it.

In badly constipated cases, where the operation has not immediately relieved the condition—
if the three smaller sizes be intrusted to the patient, by passing them at bed time—twice a week,
the proper dilatation will not only be secured permanently, but the regularity of the bowels easily
established.

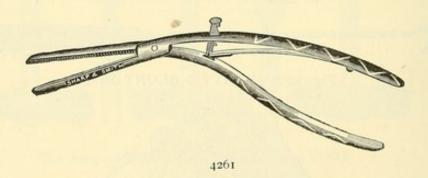
In such cases, they should be completely inserted, allowed to remain a short time, and then withdrawn during an expulsive effort.

The two larger sizes are useful in arresting hemorrhage after operations.

The manner of using them is to dip the size selected in vaseline, and introduce it carefully and slowly during an expulsive effort.

The second invention is an improved Artery Forceps, suggested to me by Dr. C. Manville Pratt, of Towanda, Pa.

This cut will sufficiently explain their advantages. Straight Forceps are so awkward in rectal work, and the grasp of the ordinary one is so poor on the slippery surface of the bowel, that I am grateful to Dr. Pratt for his suggestion. This modification leaves little to be desired in the way of Rectal Artery Forceps.



PRICES OF PROF. PRATT'S INSTRUMENTS.

FIG.													
*4253	Pratt's	Rectal	Dilators.	, sizes	I to 5		 		 		each	\$1	25
*4254	4.4	4.4	Speculus	m, trib	lade		 		 		"	3	50
4255	4.6	4.6	44	two	blade		 		 		"	3	50
*4256	44	44	Scissors				 		 			3	00
*4257		44	Tenacul	um					 		"	-	75
*4257 *4258		**	Blunt H	look			 		 		"		75
*4259	"	44	Artery I	Forcens					 				75
	"	66	Aitely I	orceps	long		 		 		- 66		50
4260	"		Clamp	emall.	iong		 		 				50
*4261	**	**	Clamp,	large.			 		 	• • • • •			00
4262				large			 		 				00
4263	**	Stem P	essaries,	latest	improve	a	 		 				
*4264	**	Latest	Bivalve	Rectal	Speculun	n	 		 				50
*4265	**	**		"	Dilator.		 	• • • • • •	 		"	I	50

See following page for last two items.

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AND MAKE IMMEDIATELY NEW PATTERNS AS THEY ARE WANTED.

See Supplement for other

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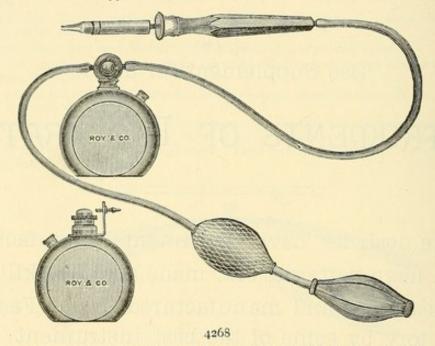
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THERMO-CAUTERY.

FIG.	
*4268	Pacquelin's Cautery, complete, in neat Morocco Case, Fig. 4269, with two Cautery Points\$30 50
*4269	Showing Cautery, in Case, as described in Fig. 4268.
×4270	No. 4-Button Cautery Point I These two Tips are the ones referred to as be- I 10 00
*4271	No. 5-Knife " longing to complete Apparatus Fig. 4268. 10 00
*4272	No. 6—Curved Knife, Cautery Point
*4273	No. 7—Small " " 10 00
*4274	No. 8Curved Small Knife, " to oo
*4275	No. 9—Cylindro Conical " 10 00
*4276	No. 10—Sharp Point Cautery 10 00
4277	No. 11—Very Fine Knife, Cautery Point
*4278	No. 12—Needle Tip, " 10 00
*4279	No. 13—Cautery Scissors, Straight or Curved
	PARTS OF THE CAUTERY.
	Motel Passausia

	Metal Reservoir\$		
4281	Glass "	2	50
4282	Metal Lamp	2	50
4283	Glass "	2	00
4284	Canulated Handle, with lengthened Tube	2 1	CO
4285	Double Bulb Blow Apparatus	3	00



DR. PACQUELIN'S CAUTERY (THERMO-CAUTERY.)

Pacquelin's Cautery is an instrument for the production of permanent and controllable heat, and with slight radiation, it can be raised to the highest temperature. It passes through liquids and organic tissues without losing its activity.

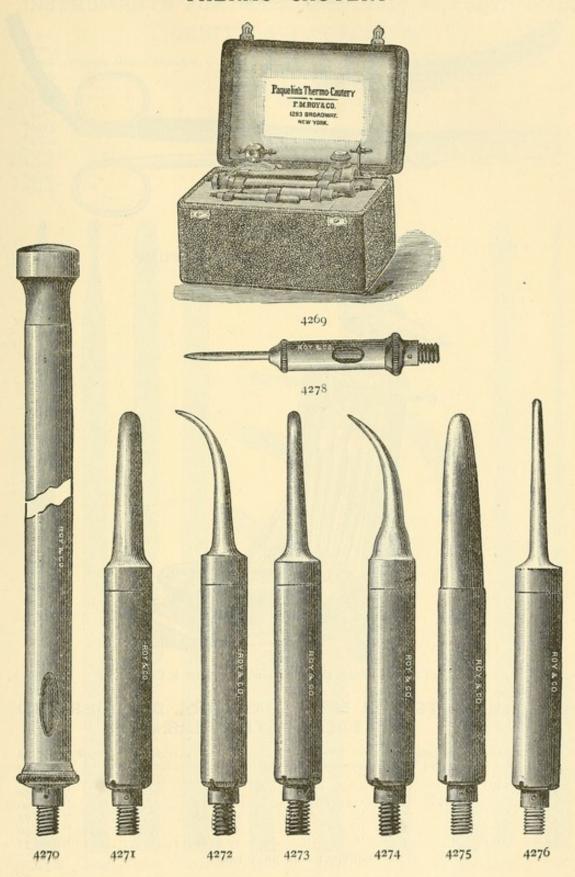
This admirable instrument (without rival) is adapted to all the needs of actual cautery, owing to the variety of its forms. It occupies a privileged rank among the principal instruments indispensable in surgery, where the use of cautery by fire is indicated.

The use of this instrument is desired from the fact that when platinum, as well as several other metals, slightly heated, is brought in contact with hydrocarbon vapors, it gradually becomes incandescent, and retains its heat as long as the vapors are supplied.

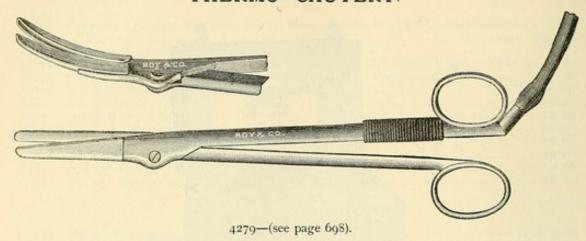
It is combined as follows: A combustion chamber of platinum, a canulated ebony handle, a thick rubber tube, a reservoir for the hydrocarbon, a double bulb apparatus for supplying air. A spirit lamp, with blow pipe, is furnished with the above.

NOTICE.—The above described parts are put up in a neat Morocco Case, four inches high, seven inches long, and five inches wide.

THERMO-CAUTERY.



THERMO-CAUTERY.



ALLEN'S UNIVERSAL SURGICAL PUMP.

WRITE FOR PRICES.

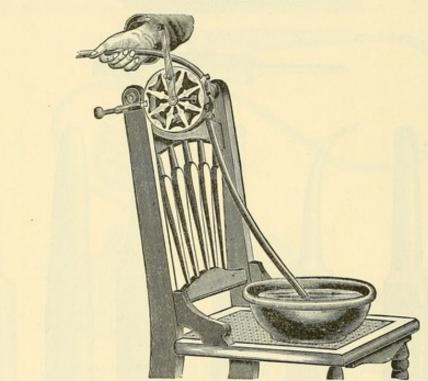


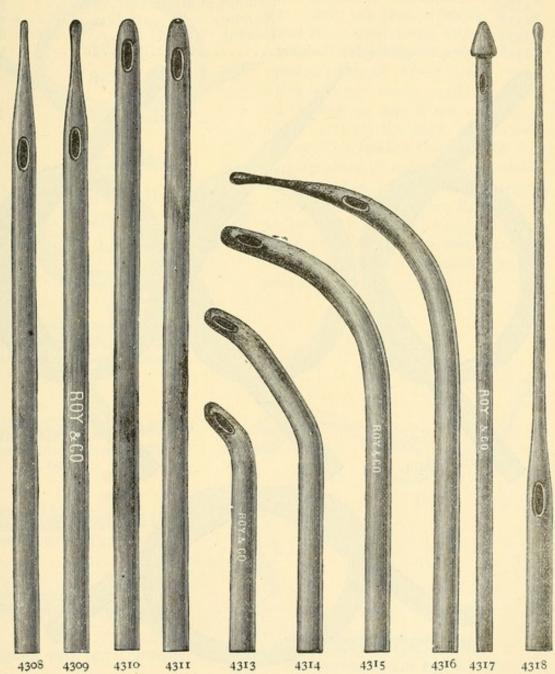
Fig. 2.—Showing the Pump attached to a Chair.

INSTRUMENTS FOR MALE URETHRA, BLADDER AND GENITALS—CATHETERS.

11	Web Cat	Wal (athotore	cines t		•				66			44
	(Double)	WED		Sizes 1	10 13	2					0	25-	11111111111
- 11	"	**		" 12 t	0 16	5				 			. each
4.6	44	**	"	" 17:	and	18.				 			. "
44	(Best)	ec.	11	Olive T	ip,	sizes	s I	to	12	 			
6.6	- 11	4.6	4.6	"		**	12	to	18	 			**
**	16	4.6	64	Conical		**	1	to	12	 			**
4.6	64	6.6.	**	44		66	10	to	18				46

INSTRUMENTS FOR MALE URETHRA, BLADDER AND GENITALS—CATHETERS.

FIG.					
*4308	French	Web	Catheters,	Conical, all sizeseach	1, \$0 50
*4300	44	44	**	Olive, " "	
*4310	44	44	**	Cylindrical, all sizes "	50
*4311	- 11	**	++	" hole in end and side "	50
4312	- 66	**	**	Prostatic "	60
*4313	44	**	- 44	Mercier's Elbow	65
*4314	- 11	4.6	14	" Double Curve "	85
*4315	44	**		Curved Cylindrical "	
*4316	**	4.6		" Olive Tip "	60
*4317	***	**	"	Bulbous	60
*4318	**	**	**	with long Bougie Tip "	75



	UKE	IMK	AL IN	STRI	UMENTS-	-CAT	HETE	RS.		
*4319	Lee's C	vlindric	al half	silk Ca	theter				8	50
*4320	" 0	live Poi	nt "	"	"				*	60
4321	" O	pen En	d "	**						75
*4322		lercier's		"						75
4323	Silk We	b Cylin	drical (Cathete	rs			• • • • • • •		75
4324	"	" Olive " Merc								85
43 ² 5 *43 ² 6	Relfast	Linen V	Veb Car	theters	Olive Tip				1	25 50
*4327	"	"	"	"	Cylindrical.					50
*4328	**	66	**	**	Mercier's					75
*4329	"	"		**	Olive Metal	Гір			1	00
*4330	"	46		**	Cylindrical I	Metal '	Гір			75
*4331	"	"	"	4.	Mercier's Conical	"	"		I	25
*4332	Language	' Cofe D	ubban (Cathata			"		1	
*4333	Jacques	Soft K	ubber	athete	r	• • • • •				50
		4319			4320			4321		

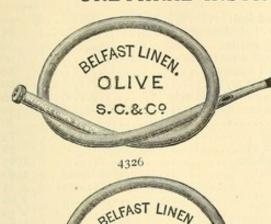
URETHRAL INSTRUMENTS-CATHETERS.

A NEW CATHETER TIP.

Antiseptic-Non-breakable.

Heretofore in all Flexible Catheters, whether with woven or cut eyes, at least one-quarter of the body of the tube is displaced where the eye occurs, and the Catheter is consequently made weakest at the very part where the most strength is required. This general defect has been overcome in the Metal Eye Belfast Linen Catheters, by ingeniously attaching a properly constructed German Silver Eye Piece, which is firmly woven inside the tip of the Catheter, so that it not only thoroughly protects the weak part about the eye, but makes the head of the Catheter perfectly solid and antiseptic.

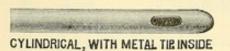
In the Olive and Conical patterns, additional stability is given to the slender points by means of a catgut inside, which extends from the metal eye to the extreme tip, and makes the points solid and firm.





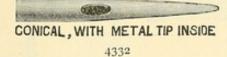
CYLINDRICAL

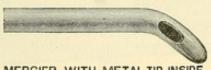
S.C.& C9



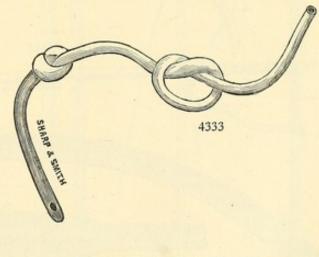
4330

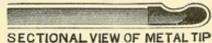






MERCIER, WITH METAL TIP INSIDE





	UF	RETH	IRA	LI	NSTF	RUMEN	ITS-	-CAT	HETE	RS.	
FIG.										E	ach.
*4334	Soft F	Rubber V	Velvet	Eye	Catheters	, cylindric	al			\$	50
*4334-B			**		"	. "					75
*4334-C				"	"	long con	ical				60
*4334-D		61	**		**						1 00
*4334-E		**	**	**	44						60
*4334-F		**			"	Mercier open on	end and	l cide			60 60
*4334-G *4334-I		**	**	**	**						50
4335	Nelate	on's		**	64	open nea					30
4336	Drain		**	**	**						75
4337	Leavit	t's	44	" I	Female C	atheter					50
			Rubber	r Do	uble Curre	ent Cathete	r				1 85
*4339	French	h Gum									1 50
4340	Englis	sh "									1 25
		Rubber									2 00
4342		nn's So	ft Rubl		16 61						2 50
*4343		Silver			16 61						3 00
4344		Plated							• • • • • • • • •		2 00
4345	Plain :									• • • • • • • • • • • • • • • • • • • •	2 75
4346		Plated									1 75
			-50	7 E	LVI	ETE	V				
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		1000	AC		D	0	Gar				
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	10	B	-		61	6		A	100		
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	180	20.0	10.3	1					91		
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	W.A	題 多	12					B 3	福月 五		
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	URETHRAL INS	STRUMENTS-	-CATHETERS.	
*4347 *4348 4349 4350 4351 4352 *4353 *4354 4355 4356 *4357 4358 4359 *4360 4361 4362	Gross' Spiral Goulay's Tunneled Cowan's Vertebrated Squires' Vertebrated	theter	ere bladder	I 50 75 2 00 I 00 2 00 I 50 75 2 50 I 50 2 25 6 50 4 50 4 50
O n s	4360	4363-64 4348	SHARF & SMUTH'	DANABAS SAINT

URETHRAL INSTRUMENTS-CATHETERS. FIG. *4363 Male and Female Jointed Silver Catheter.....\$ 2 00 *4364 Plated *4365 " Silver Parker's..... 3 00 *4366 *4367 Plated 2 00 Holt's Self Retaining I 00 *4368 Dowell's 3 75 4369 Metal Cooling Wyeth's Cocaine 4370 I 00 Otis' Urethral Haemostatic Tube 4371 50 *4372 Bigelow's Metal Catheter Syringe..... 4 50 *4373 Dick's " Caustic *4374 Van Buren & Keyes' Bladder Syringe with Stop Cock, Catheter, etc..... 3 50 SHARP & SMITH, CHICAGO. 4368 4374 4372

All instruments designated by a * are illustrated.

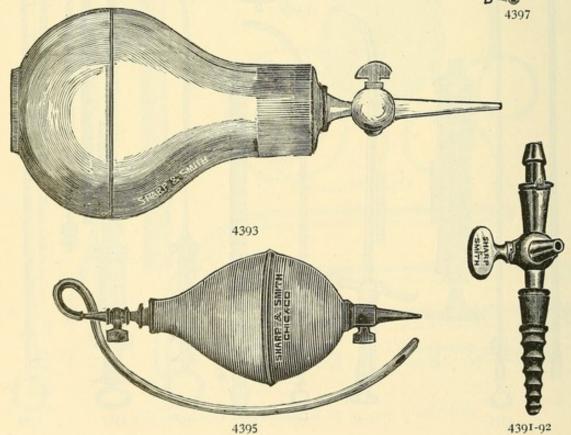
	URETHRAL INSTRUMENTS—SYRINGES.	
FIG.		0
*4375	Otis' Catheter Syringe	
*4376	Parker's " (Silver)	2 65
*4377	NOZZIE	1 15
4378	Reyes Oulde	60
4379	Gouley's	40
4380	24	60
*4381		75
4382	Taylor's Urethral Syringe	2 80
4383	Olizindii	3 00
4384		2 00
*4385 *4386	Keyes' (Ultzman's) Urethral Syringe	1 75
	4 1 1	4 50
*4387 *4388	Bryce's " and Applicator	
4389	Thornton Parker's "Tube	4 25
*4399	Hosmer's T. for washing out the bladder	35 75
*4391	Van Buren & Keyes' Stop Cock Metal	1 75
*4392	" " Hard Rubber	1 50
*4393	" Bladder Syringe	
	" Hot Water Bag for diseased prostate	3 75
4394 *4395	Peck's Double End Bladder Syringe	2 00
4393	C	
	CODMAN & SHUTTLEFF, BOSTON.	
		SHARP & SMITH

BRYCE'S URETHRAL APPLICATOR AND SYRINGE.



4388

This instrument, known as "Bryce's Urethral Applicator A and Syringe," consists of a silver cylindrical tube, perfectly straight, ten inches long, with a number of perforations near the vesical end; within this tube slides another tube of equal length, provided with a large fenestrum to correspond with the perforations in the outer tube. An air-tight plunger fits accurately in this inner tube. An ointment may be placed in this tube, and the whole encased in the outer one. This instrument is so arranged that when it is carried down to any desired spot, by turning the inner tube and forcing a little gauge pin into a slot in the outer tube, the fenestrum is brought opposite the perforations in the outer tube. By gently forcing the piston rod down, an ointment may thus be applied in any quantity to any particular spot or spots within the urethral tract. The instrument may be used equally as well for a syringe. It is the best one I have ever used for medicating the urethra. The surgeon can with positive certainty know exactly where he is applying his remedies, and has perfect control of such agents, medicating only such spots as he may choose, applying large or small quantities as the case may demand. Any surgeon who is familiar with the anatomy of the parts, knows that a perfectly straight instrument can be readily passed into the bladder.



URETHRAL INSTRUMENTS-SYRINGES.

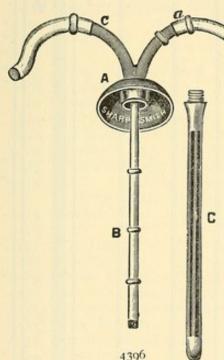
FIG.			
*4396	Zuelzer's Katharaphe	f\$ 3	00
		Tube I	

ZUELZER'S KATHARAPHOR FOR THE URETHRA.

[From Medical News.]

The above named instrument, designed by Professor Zuelzer, is well adapted to cleanse a diseased urethra of infectious bodies and inflammatory effusions. Its chief use is in cases of acute gonorrhæa, but it also finds application in the chronic state, with accompanying erosions, rents, broad superficial loss of substance and ulceration or croupous infiltration of the mucous membrane.

The customary method of using injections, suppositories and ointments, is undoubtedly deficient in not providing for a preliminary thorough washing of the affected tract, and the want of care and exactness, which lies in applying medicaments over an unremoved layer of inflammatory products, needs hardly to be mentioned as incompatible with our ideas of antiseptic treatment.



By the use of the Katharaphor this indication is fulfilled, and the ingenious and complete manner of construction has led to the belief that it is deserving of notice in America. The accompanying illustrations may serve to explain the instrument:

The bell A is of a size to cover the glans penis. The bent tube a, distinguished from its fellow c by an elevated ring, is connected with an irrigator of water or antiseptic solution, and terminates in the straight tube B. The latter has a length of $4\frac{1}{2}-5\frac{1}{2}$ inches, and ends with a free opening. The outer tube C, encasing B, is screwed into the under surface of the bell and communicates thereby with the outflow tube c. The outer tube is of silver or German silver, its lower end is closed and has a tip like a catheter's. Its sides are perforated by four long broad slits. The three elevations on B prevent the outer tube C from bending inward.

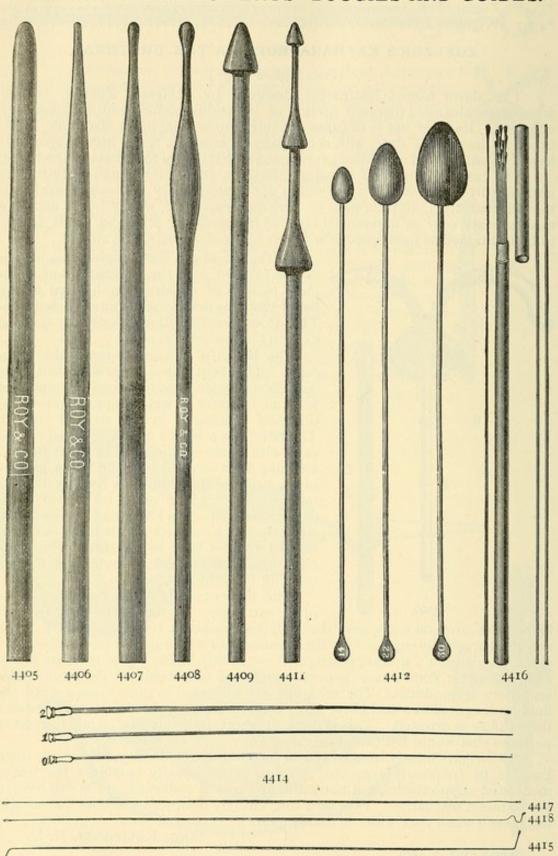
The current of fluid in A B escapes at the open extremity. Through the slits in C it

bathes the urethral walls, and the collected washings returning inward again are discharged through c. In the treatment of acute gonorrhea in Zuelzer's clinic, the patient's urethra is irrigated once daily. The liquid is either hot or cold, the latter state being generally preferred on account of the comfortable sensations it produces. The washings are collected in glass vessels until the fluid no longer shows turbidity. By compressing the rubber tube attached to c the outflow is arrested. This is done at short intervals and tends to remove particles that would not otherwise come away.

An irrigation lasts from fifteen to forty minutes. It may, of course, when possible, be frequently repeated. Prof. Zuelzer usually combines the use of medicated suppositories, but not with any decided influence on the duration of the purulent discharge. This, as a rule, entirely disappears in from six to eight days, even when pure water is the irrigant.

Louis Kolipinski, M. D.

URETHRAL INSTRUMENTS-BOUGIES AND GUIDES.

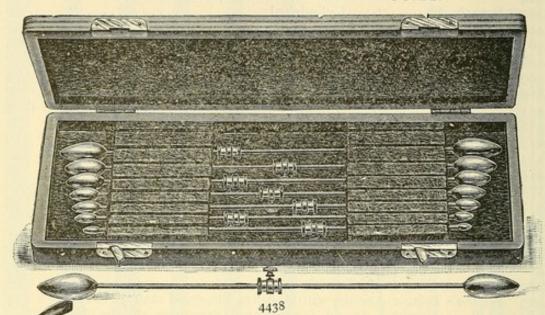


	UR	ETH	RAL	INSTRU	MEN	TS-	BOUG	GIES.		
4398	English	Web I	Bougies	(Common)	. sizes	ı to ı	2		s	15
4399	"	66	"	"				per doz		25
4400	44	"	"	"				each		25
4401	44	66	"	"	" I	7 and	18	"		30
4402	14	66	"	(Fine)			2			50
4403	"	44	**	"	" I	3 to 1	6	"		65
4404	**	66	66				18			90
*4405	French	"	44	Cylindrica						50
*4406	"	"	"	Conical						50
*4407	"	"	"	Olive Tip						50
*4408	"	"	"	Bellied						60
*4409	"		"	Aboulé						75
*4410	"	"	"	Double Al						00
*4411				Triple					1	25
4412	English			Nos. 6 to						35
*4414	French	Fillio								50
*4415	Whalebo	ne (50
*4416	" Halebe	,						per box	. 3	30 50
*4417	Olive Ti	n Wha	lebone	Filiform E	Congres			each	3	35
*4418	Goulay's		"	"	"					40
4419	Banks'		66							95
4420		e's Pat	hfinder						26	25
4421	Modified	l Eldr	idge's	Pathfinder.					2	75
4422				Sound						85
*4423	Weisse's	Bougi	e Abou	lé, with nor	n-flexib	le, rule	d staff.			75
*4424	"			and, for tre						
	Ureth	ra exte	riorly to	o the triang	gular lig	gamen	t			75
4425	Belfast I	Linen	Bougies	s, Olive Ti	p			each.		50
4426	"	"	"	Cylindrica	al			"		50
4427	Sea Tan		"					"		75
4428	Silk Web		"						I	00
*4429	Papier N	lache a	and Cat	heter Box	(see Fi	g. 441	6)	"		75
4430	Casper's	Rubbe	er, Gon	orrhœal Bo	ugie				2	00
4431	Hunters	Filan	nentous	Wedges	• • • • • • •			each.		60
4432	Wax Bo	ougles.	Donale			• • • • •				30
4433	Straight	Metal	Bougie	s					-	50
*4434	Straight Curved	Eiiii	**					per doz.	200	00
*4435 *4436		Bulbo	ne Ron	gies				each.	3	00
4430	1 maru s	Duibo	us Dou	gies.,				· · · · · · · cacii.		35
	-	1	2	3	without .	5	-		2	
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URETHRAL INSTRUMENTS-BOUGIES AND SOUNDS.

*4438 4439	Fowler's modification of Otis' Bulbous Bougies each	50
*4440	Wier's Short Curve Steel Sound	15
*4441	Piffard's Fossil Sound	75
*4442	Wier's Short Curve Steel Sound	85

DR. FOWLER'S CASE OF OTIS BOUGIES.

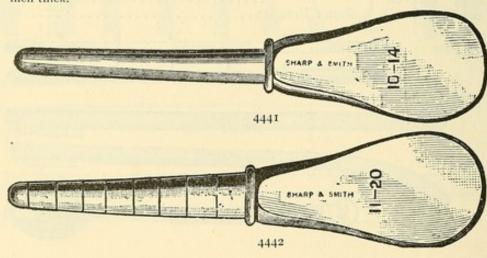


This set of Bulbous Bougies, for locating strictures of the male urethra, was devised by Dr. Geo. R. Fowler, as a companion to Prof. Weisse's Pocket case of Sounds. This set consists of 16 bulbs numbered according to the French Scale, giving every even number from 10 to 40.

Owing to the small difference between the sizes in this scale, every alternate size is all that is usually thought necessary. The slide attached to the rods serves as a place on which the sizes of the bulbs are stamped, and as an accurate and simple means of measuring the depth of the stricture, by sliding it up to the meatus and fastening it with a turn of the screw, while the bulb is engaged in the stricture.

Owing to the rare occurrence of strictures below the straight portion of the urethra, the rigidity of the stems in these instruments, will very seldom become an objection, and their compactness and arrangement will be found a great convenience in carrying, and in use.

The entire set is contained in a morocco case 3½ inch x 956, and less than one inch thick.

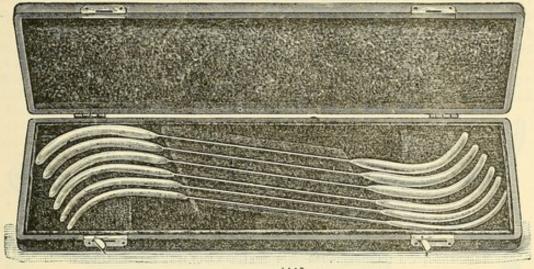


4440

URETHRAL INSTRUMENTS-SOUNDS.

*4443	Fowler's set of	12 sizes	curved Sounds in	Case	87	00
*4444	Weisse's "	12 "	straight "	"		

DR. FOWLER'S SET OF SOUNDS.

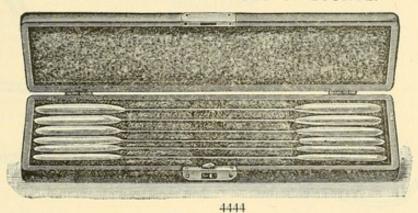


4443

This set of Sounds comprises twelve sizes from No. 9 to No. 20 American Gauge, and while they are as effective as the old style of Sounds, the weight, bulk and expense are reduced nearly one-half.

They have the regular Van Buren curve and taper, and are put in Morocco cases 12½ inches long, 4 inches wide, and 1 inch deep. Weight complete, 20 ounces.

DR. WEISSE'S POCKET SET OF SOUNDS.



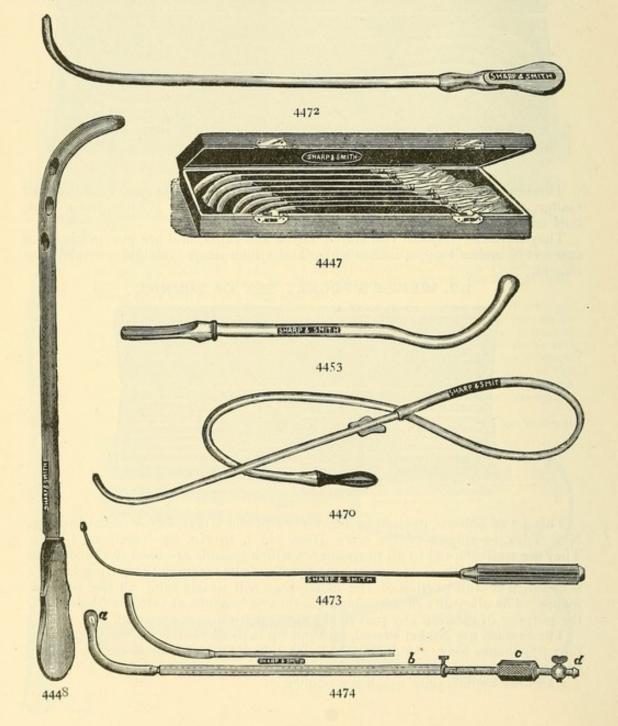
This set of Sounds, devised by Dr. Weisse of the University Medical College, New York, comprises twelve sizes, from No. 9 to No. 20 American Gauge. They are well adapted to all purposes for which Sounds are used in the straight portion of the urethra; as almost nine-tenths of the treatment requiring Sounds is confined to this portion of the canal, they will nearly fulfil all the requirements. The absurdity of introducing a curved instrument into the bladder for the purpose of dilating any part of the straight urethra is apparent.

The Sounds are Nickel Plated, and put up in neat Morocco Case, measuring only 8½ inches long, 25% inches wide, and 7% inch deep, so it can be readily carried in the pocket.

Case and Sounds only weigh ten ounces.

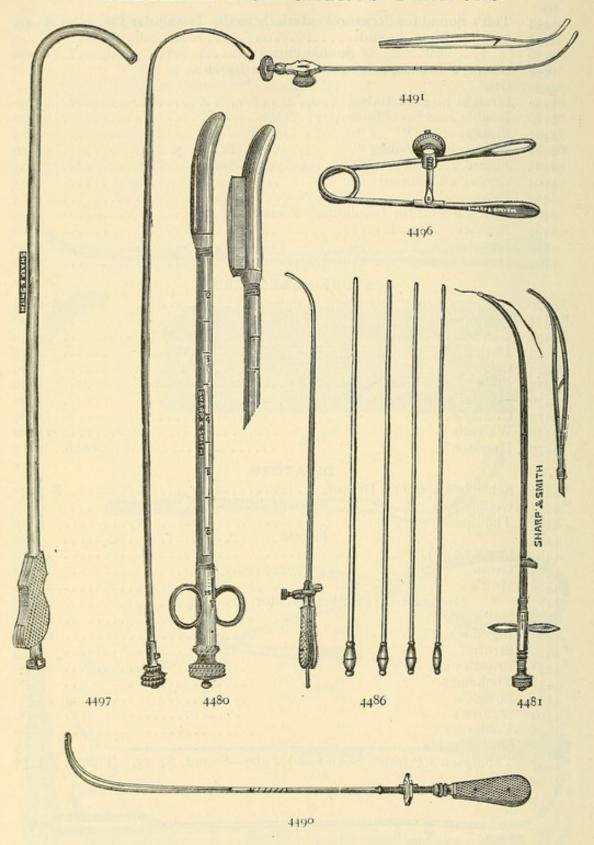
URETHRAL INSTRUMENTS-SOUNDS and EXPLORERS.

FIG. 4445		en's Stee									
A DESCRIPTION OF	Eng	glish Scale							each	\$	75
4446	Van Bure	en's Steel	Sounds,	Sizes	21 to 2	5 Engli	sh Sc	ale		I	00
*4447	"	Set of 8	Steel S	ounds.	in case	e				8	00
*4448	"	Steel Oil	ntment	Sound	s				each	I	50
4449		Covered,	Velvet	Lined	Cases,	for 2 S	ounds			2	50
4450	66	66	66	66	"	" 8	66			2	00
4451	"	"	44	66	46	" 12	66			4	25
4452		"	- 66	- 66	- 66	" 16	44			5	50
*4453	Mastin's	(mobile)	Olive P	oint, S	Steel Sc	ound				I	85



	URI	ETHRAL INSTRUMENTS.	
FIG.	Toft's Cound for	Strictures exteriorly to the Triangular I income a	
4454	Florible Metal S	Strictures exteriorly to the Triangular Ligament \$	95
4455	" "	" double curved	60
4456		s, same prices as Van Buren's.	00
4457 4458	Otis' "	" " " "	
4459	0.410	ounds	90
4460		1.0	00
4461		"	75
4462	Winternitz's Coo		00
4463	Piffard's Fossil	"	75
4464	Goulay's Tunnel	led "	85
4465	Lawrence's		25
4466	· Hale's Sound for	r Involuntary Emissions	75
4467			00
4468	Bumstead's "	I	00
4469	Hollow Sounds	f CILIW	00
		STONE SEARCHERS.	
*4470	Andrews' Stone		
*4471	Thompson's "		75
*4472	Goulay's "		50
*4473	Little's "		75
*4474	Otis' "		00
4475	Plain "		50
4476			50
4477	Goulay's "	" "	00
4478	Walker's "		00
4479	Harrison's "	The state of the s	15
,		DILATORS.	- 3
k 0 .	Cohmois's Heath		
*4480	Coulav's "	ral Dilator\$ 7	50
*4481	Goulay's " Thompson' "	for over-distension	
4482	" "		50
4483	Goulay's (") "	" 10	00
4485	Gross' "	" 10	50
*4486	Holt's "	"	50
4487		d's) Urethral Dilator 10	25
4488	Dolbean's	" "	
4489	Bigelow's	" " II	
4490	Stearns'	" " 3	
4491	Priestley's	" "	
4492	Thebaud's	" " 7	-
4493	Powell's	" . "	-
4494	Steurer's	" "	
4495	Voillerner's	" "	
4496	Otis' Meatus	" I	
4497	Thompson's Pros	C 1 1 T 1 C 1 A T 1	75
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URETHRAL INSTRUMENTS-DILATORS.



See preceding page for prices

	URETHRAL INSTRUMENTS.	
FIG. 4498	Desormeaux's Endoscope\$45 oo to \$95	00
*4499	Skene's " 2	00
*4500		15
4501	Laveur's "	
4502	Glass Mirror Urethral Speculum	35
*4503		50
4504	Meatus	50
*45°5 *45°6		00
*4507	Brown's " " 3	35
*4508		25
4509		25
4510	Wier's Meatoscope	00
4511	Porcelain "	60
4512	Silvered Glass Meatoscope	60
4513	Smith's Urethroscope	35
	4503	
	4505 N° 2 N° 3 SEARC & SMITH, CHICAGO. 4508	

URETHRAL INSTRUMENTS-URETHROTOMES.

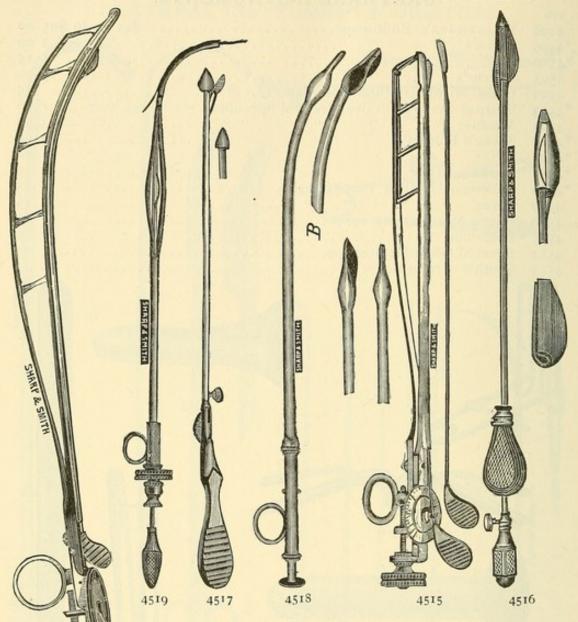


Fig. 4517. Gross' Straight Urethrotome.

It is nothing more, as may be seen in the wood cut, than a metallic exploratory bougie, the slender shaft being provided with a handle, grooved for the reception of a steel rod, to one end of which is attached the blade, and to the other a button,

through the retraction of which is attached the blade, and to the other a button, through the retraction of which the former is thrown out of the under surface of the bulb, so that the incision may be made along the floor of the urethra. The extent to which the blade can be projected is regulated by a lateral screw near the handle. The length of the contrivance is eleven inches, of which three are taken up by the handle, button and screw. In actual practice I have found two such instruments to be all that are required. In one, which is intended for strictures of moderate caliber, the bulb is equal to No. 15 of the French catheter scale; while in the other the bulb corresponds with No. 23, which suffices to define coarctations of much larger size. In exceptional cases, still larger bulbs may be demanded.

URETHRAL INSTRUMENTS—URETHROTOMES. FIG. *4514 Otis' Straight Urethrotome (latest pattern)......\$22 50 " Curved " Bulbous *4515 (" " *4516 *4517 Gross' Straight "Curved 5 00 *4518 *4519 4520 4521 Maisonneuve's 4522 Teevan's *4523 Bumstead's *4524 Civiales' 4526 Peters' 4 50 4527 Bates' " 11 25 *4528 Nall's " 27 50 *4528 11 Nall's Kinloch's *4529 20 00 *4530 10 50 No 4523 4530 4524

All instruments designated by a * are illustrated.

URETHRAL INSTRUMENTS-URETHROTOMES AND URETHROMETERS. Mastin's Diagnosing Urethrotome. \$11 25 "Instrument for Subcutaneous Urethrotomy 4 50 Pritchett's Rotating Urethrotome. 18 75 Westmoreland's Urethrotome. 9 00 Peters' 4 50 Banks' 15 00 Otis' (modified by J. Blake White's), Urethrotome. 30 00 Dr. J. Blake White's 15 00 Milnes' Dilating Urethrotome. 12 75 4540 Stearns' Dilating Urethrotome 9 00 4541 Wyeth's 27 00 4542 Hunter's " 27 00 4543 Hunter's " 19 50 URETHROMETERS. *4531 *4532 4533 4534 4535 4536 4537 *4538 4539 " 27 00 19 50 " 37 50 " and Urethrometer 30 00 Brown's 4543 Young's 4544 4545 Rogers' Walker's External Urethrotome..... 4546 I 35 4547 Otis' Urethrometer..... Weir's 4548 Gross' 4549 4532 4537 4538 4547

*4550 *4551 *4552 *4553 *4554 *4555 *4556 *4557 *4558 *4559 *4560 *4561 *4562	Sharp Point Little Probe "Dupuytren's Little's Sharp Po Gouley's Beaked Blizzard's Probe "Wyeth's Sharp Piffard's Fossil Sciviale's Bistour Dupuytren's Downwood's Bisector Hutchinson's Little	point Lithotomy I Pointed Bistour Stricture Cutter y Caché	Bistoury		\$ II	50 50 40 25 20 50 50 50 50
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All instruments designated by a * are illustrated.

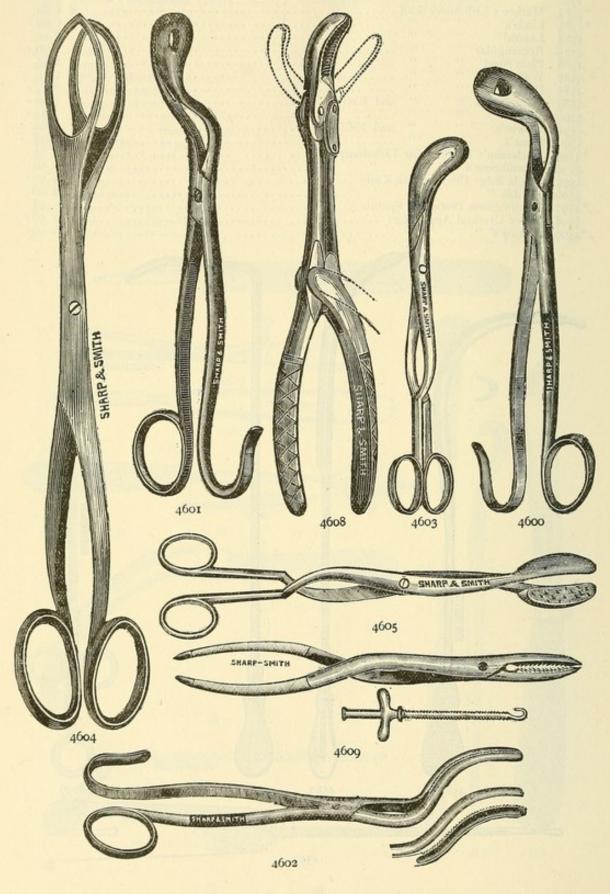
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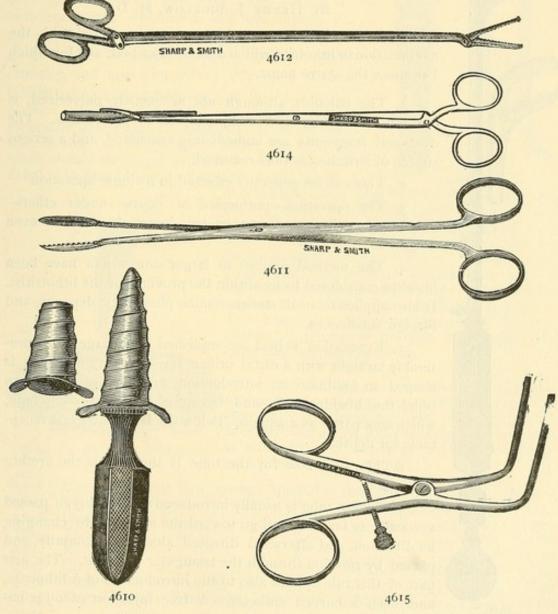
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*4563	Gouley's Meatotome			8005
4564	Mitchell's "		· • • • • • • • • • • • • • • • • • • •	
*4565	Otis' "			
4566	Civiale's "		• • • • • • • • • • • • • • • • • • • •	
*4567 4568	Piffard's " Simpson's "		·····	
4569	Piffard's Meatometer			0 0
*4570	Bush's Gorget			
*4571	Hooked Gorget			2 25
*4572 4573		ades		1 3
4574		····		I 90
4575	Scoop and Gorget			1 85
4576	Sims' Scoop			I 50
*4577 *4578				
	Dowell's Gorget and S	taff		I 90
4579 4580	Little's Lithotomy Dir	rector		1 15
4581	Gouley's "	"		I 20
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4	EMANUE	SPATES		
	SHARPE	SPECT I		
	SHAME	4580	4577 4578	4572

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FIG.	Markoe's Lithotomy Staff			A
*4582 *4583	Little's " "			\$ 1 50 1 50
4584	Lateral " "			I 50
4585 4586	Rectangular " "		· • • · • • • • • • • • • • • • • • • •	
4587	Walker's " "			
4588 4589	Buck's " " Whitehead's " "		• • • • • • • • • • • • • • • • • • •	
4590	Woods' " "			I 75
4591				3 00
4592 *4593	Syme's " " Buchanan's Rectangular I		• • • • • • • • • • • • • • • • • • • •	
4594				
4595 4596	Wheelhouse's Single Edge Circumcision Deable "	Knife	•• •••• •••••	1 60
*4597	Circumcision Probe and Sp	oatula		
4598	Silver Urethral Applicator	s		I 50
*4599	McCoy's ". "		•••••	2 00
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URETHRAL INSTRUMENTS-FORCEPS.



URETHRAL INSTRUMENTS-FORCEPS. FIG. *4600 Curved Bladder Forceps *4601 Double 4 40 *4602 Thompson's Bladder Forceps..... 4 40 Curved Lithotomy Forceps..... *4603 2 25 *4604 Teevan's " " fenestrated..... straight.... *4605 Little's 2 25 Stone Crushing Forceps..... Extracting 4606 4 50 4607 *4608 2 25 Gouley's Double Lever Lithoclast ... Dolbeau's Lithoclast. Lithotomy Guide. *4609 5 25 *4610 2 80 *4611 I 50 *4612 Alligator 4 00 4613 Mathieu's curved..... 4 50 .. ** *4614 Collins' 4 00 *4615 Hutchinson's Prepuce



All instruments designated by a * are illustrated.

URETHRAL INSTRUMENTS-Lithotrites and Evacuators.

*4616	Bigelow's latest Lith	otrite.			 	 	 	§	830	00
4617	Ferguson's	66								
		44			 	 	 		27	00
	Thompson's									
4620	Mathieu's	46								
	Jacobson's	"								
4622	Heurteloup's	44	and							
	Gouley's	"			 	 	 		27	00
	Keyes'	"			 	 	 		27	00
4625	Chismore's Evacuat	ing Li	thotrit	e	 	 	 		18	00

LITHOLAPAXY.

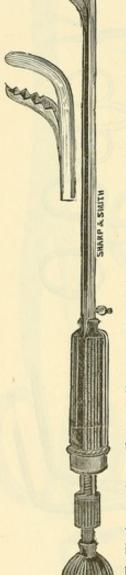
Rapid Lithotrity with Evacuation.

BY HENRY J. BIGELOW, M. D.

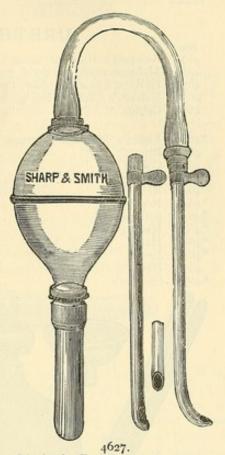
The following are the chief points connected with the modification in lithotrity which I have described, and for which I propose the above name.

- 1. The calculus, although not necessarily pulverized, is crushed as rapidly and completely as is practicable. The dust and fragments are immediately evacuated, and a serious source of irritation is thus removed.
 - 2. This can be generally effected in a single operation.
- The operation—performed of course under ether may be if necessary, of one or two hours' duration, or even longer.
- 4. The method applies to larger stones than have been hitherto considered to lie within the province of the lithotritist. It also applies to small stones, nuclei, phosphatic deposits, and foreign substances.
- 5. Evacuation is best accomplished by a large tube, preferably straight with a distal orifice, the extremity of which is shaped to facilitate its introduction, and, during suction, to repel the bladder wall—and by an elastic exhausting bulb, which acts partly as a siphon. Below the latter is a glass receptacle for debris.
- The best size for the tube is the largest the urethra will admit.
- 7. Such a tube is usually introduced with facility, if passed vertically as far as it will go toward the anus before changing its direction, and afterward directed almost horizontally, and passed by rotation through the triangular ligament. The first part of this rule applies also to the introduction of a lithotrite, and even a curved catheter. A free injection of oil is im-

4616. and eve Bigelow's Lithotrite. portant.



- 8. A small meatus should be enlarged, or a stricture divulsed, to allow the passage of a large
- 9. If the bladder be not small, a large and powerful lithotrite is always better than a small
- 10. That this may have room for action, the escaping water should be replaced occasionally, through a tube inserted a few inches into the urethra by the side of the lithotrite. But the bladder should not be over distended.
- 11. To save time, and also to prevent undue dilatation of the vesical neck, a non-impacting lithotrite is desirable. The jaws of a non-fenestrated instrument will not impact, if the male blade is furnished with alternate triangular notches by which the debris is discharged laterally, and also with a long thin spur at the heel fitted to a corresponding slot in the female blade-provided the floor of the female blade, especially at the heel, be made nearly on a level with its rim. To repel the bladder, the female blade should be longer and a little wider than is usual. It should have also low sides easily



Bigelow's Evacuating Apparatus.

accessible to fragments, relying for strength less upon these than upon a central ridge below the heel. In the male blade of such a lithotrite the apices of the triangles should be a little blunted. Lastly, a nonfenestrated female blade protects the floor of the bladder, during a long sitting. A fenestrated instrument directs sharp splinters against it. The latter also delays the process of disintegration, by delivering through its opening the same fragments many times.

Stand for Bigelow's Evacuating Apparatus.

12. In locking and unlocking a lithotrite repeatedly in a long operation, it takes less time and is easier to turn the right wrist, as in my instrument, than to displace the thumb of either hand in search of a button or lever, as in previous instruments.

FIG.	and the second		S. Charles and S. Line					
*4626	Bigelow's latest	Evacuating	Apparatu	is (see pag	ge 728)	 	322	50
*4627	Bigelow's old sty	le "	"	and Stan				
4628	Otis'	"	"			 	22	50
4629	Thompson's	"	"			 	10	00
4630	Nelaton's	"	66			 	22	50
4631	Clover's	"	66			 	10	50
4632	Walker's	"				 	16	50
4633	Keyes' straight I	Evacuating '	Tube with					
4634	" curved							

		UREI	UKUL	INSTRUM	111110.		
FIG.	D . U	1 1 0	C 1				A
4635	Reliquet's U	rethral Stone	Crusher	sher	• • • • • • • • • • • • • • • • • • • •		
4636				and Breaker			
4638	Nelaton's U	rethral foreign	body instr	ument			30 00
4639	Collins'	" Toreign	. body mist	rument			22 50
4-39			PH	IMOSIS.			
*4640	Fisher's Ph	mosis Forcen					\$ 2 25
4641	Briggs'	"					
4642	Cohn's	**					0 10
4643	Nelaton's	**					
4644	Ricord's	44					. 3 00
*4645	Roger's				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • •	2 25
*4646 *4647	Skillern's						
*4047	Knox's	16 16					
*4648 *4649	Hall's Levis'				· · · · · · · · · · · · · · · · · · ·		2 25
4650	Henry's						3 00
*4651	Girdner's						2 65
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NEW OPERATION FOR PHIMOSIS.

By P. G. SKILLERN, M. D.

Fig. 4646.

I wish to invite the attention of the profession to a method of performing the operation of circumcision which I originally proposed and have since performed upon several cases of phimosis. The object sought to be obtained is to excise both prepuce and mucuous membrane at the same time, so that when the forceps are removed the glans penis will be at once entirely clear of both. In the ordinary manner of operating, it frequently occurs that the lining membrane of the prepuce covers and entirely surrounds the glans after the foreskin is removed, so as to necessitate slitting it up afterward. This is a real annoyance, and also protracts the healing considerably.

In performing this operation, the foreskin is to be retracted until the junction of skin and mucous membrane is reached, or as nearly so as may be desired; then three small hooks attached to a chain—somewhat similar to those contained in postmortem case, but smaller—are inserted from within outward, at



4646

equidistant points, first through the mucous membrane, then through the skin, thus fixing the two in their new relation to each other, so that when traction is made the mucous membrane is put upon the stretch. A grooved director is then passed around the glans, so as to break up any existing adhesions. Now the chain being kept taut, the forceps (see figure) are applied, and a threaded needle passed twice through the fenestra of the forceps, so as to leave two long threads passing through both skin and mucous membrane. The prepuce is then divided close to the blade of the forceps, and the latter removed. After ligaturing the small vessels, if necessary, the threads are raised on a director from the center between the remaining prepuce, and divided so as to leave four separate and distinct sutures, which, when tied, will leave both skin and mucous membrane nicely coaptated.

This is the operation as done with the author's forceps. The results obtained by it in several cases in which it has been used, have been all that could be desired.

48 South Bond Street, Philadelphia.

A NEW PROCEDURE IN THE OPERATION FOR PHIMOSIS. Fig. 4649.

By R. J. Levis, M. D., Surgeon to the Pennsylvania Hospital, and to the Jefferson College Hospital.

The object of the instrument illustrated in the cut is to facilitate the entire excision of the inner inelastic mucous membrane of the prepuce, without removing any, or more than may be required, of the outer normal skin. In some cases of phimosis total circumcision is necessary, but in a considerable proportion only a partial ablation of preputial integument is essential, and the inconvenience may be readily overcome by the method I suggest, without causing disfigurement, or indeed, making much change from the normal appearance of the organ. In most instances only the inner lamina of the preputial fold is morbidly involved, and the excessive removal of the outer layer is an error which is liable to be committed in the usual manner of operating.

LEVIS' OPERATION FOR PHIMOSIS-Continued.

In general form the instrument somewhat resembles the ordinary mathematical compasses or dividers. The limbs, or blades, terminate in blunt points, and are deeply serrated on their outer surfaces, with points or teeth set backward, like fine saw teeth, for the purpose of firmly holding the mucous membrane, without the risk of slipping when traction is made. The blades are forced

apart by a thumb screw.

In operating, the blades, closed to a point, are introduced within the prepuce up beyond the corona of the glans. They are then, by turning the thumb screw, strongly separated, so as to render the mucous membrane tense. Traction is then made, and the outer elastic skin is drawn back fully, so as to be away from the portion to be excised, and excision is effected by transfixing the prepuce through the middle with a bistoury, and cutting laterally in both directions toward the blades of the instrument. Any remaining portion of inelastic tissue may be removed with the scissors, and the operation is completed by attaching the cut edge of skin to the edge of mucous membrane remaining around the cervix by a few stitches. In this manner the inner inelastic mucous membrane may be removed, while all the normal outer integument remains.

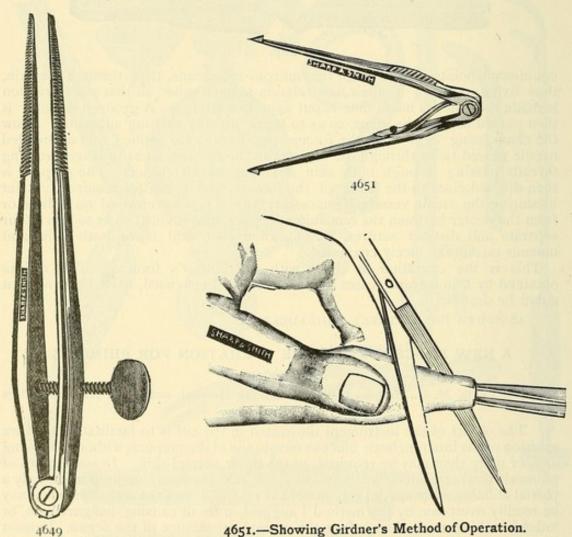
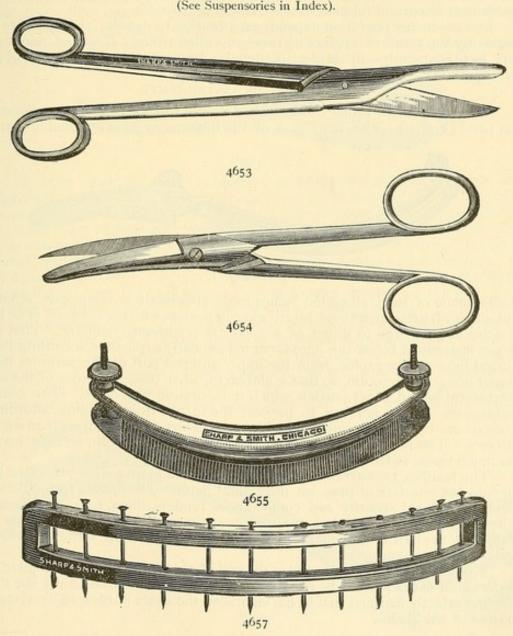


Figure 4651. This instrument is introduced *closed* into the preputial opening, then, relaxing the spring, causes the barbs to transfix, first the mucous membrane, and then the skin.

URI	ET	HRAL	INST	RUME	NTS-	PHIMOSIS	S, VARICO	CELE
FIG.							the state of the state of the state of	

4652	Baruch's Circumcision Scissors	2 00
*4653	Taylor's " "	3 75
*4654	Curved on flat " "	I 00
*4655	Lewis Varicocele Clamp	3 00
4656	Sayre's " "	3 00
*4657	Andrews' " "	4 00
4658	Wood's "	1 85
*4659	Henry's Scrotal "	6 50
*4660		6 50
*4661	" Cartilage Scissors	3 75
4662	Masturbation Clamp	75
4663	Keyes' Varicocele Needle	I 00
4664	Whitfield's " "	I 25
4665	Wyeth's Cocaine "	I 00
4666	Miliano's Scrotal Compressor	I 25
4667	Carroll's "	I 00
4668	Howe's " "	2 40
	(See Suspensories in Index)	Annual Control



URETHRAL INSTRUMENTS-VARICOCELE.

[Extract from the "Medical Record," May 28th, 1881.]

(Read before the New York Academy of Medicine, April 21st, 1881.)

REMARKS ON AMPUTATION OF REDUNDANT SCROTUM FOR THE RELIEF OF VARICOCELE.

Illustrated with New Instruments to Facilitate the Operation.

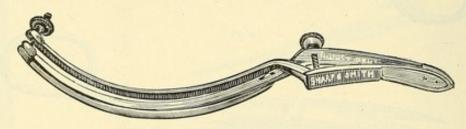
By M. H. Henry, M. A., M. D., Late Surgeon-in-Chief State Emigrant Hospitals, Ward's Island, New York, Etc., Etc.

* * In the removal of a redundant scrotum in the manner I shall describe, for the relief of varicocele, no more than ordinary skill is called for. The success of any delicate surgical operation depends mainly on the care and management before, during, and subsequent to the operation. I have ventured to allude to many little details because I am fully impressed that they bear a most important relation to the chances of success.

Success in any operation depends on attention to details. Failures are too frequently the result of neglect of these so called trifles. Cases of minor surgery have frequently—by neglect of details—been converted into cases of major importance.

DESCRIPTION OF INSTRUMENTS.

This instrument, which I have called scrotal forceps or clamps, consists of two parts (Fig. 1.) The main part of the instrument has two double curved



4659-Fig. 1.

blades, made of steel, about ten inches long, sufficiently heavy to give strength and admit of pressure without injury when in contact with the tissues. The handles are large enough to admit of a good grasp without cramping. That part of the instrument below the joint is curved as nearly as possible according to the natural lines of the raphæ, from the upper anterior part of the scrotum down to and under the scrotum, so that it embraces, when placed in front of the scrotum the entire and exact portion which it is desired to remove. The coating surfaces are evenly notched to prevent the tissues from slipping, affording a more secure hold on the soft parts, with less pressure and less injury than smooth surfaces. The blades are only thick enough to give strength, without leaving too much tissue in front.

The handles are curved so that while they maintain a direct median line, they do not interfere or press on the genital parts. The double spring, besides giving additional security and compactness, renders them, to a great extent, self-acting, easy of manipulation, and that, at times, of very great consequence, ability on the part of the operator to perform the operation without the aid of additional assistance.

The screws in the handle and at the end of the blades afford a complete and perfect hold of the parts to be removed. They are not adjusted until the operator is perfectly satisfied that he has embraced the exact portion to be removed in front of the blades.

URETHRAL INSTRUMENTS-VARICOCELE.

The extra blade is made of steel, nickel plated, and is maintained in the right anterior surface of the clamp by two small pins that fit in grooves cut in the clamp. It is easily inserted with a little pressure, and removed as easily by pressing downward and forward; it is then dislodged by slightly raising the extreme end. The extra blade, when in position, leaves a fenestra to afford the surgeon the facility of inserting all his ligatures, should he prefer it, before dividing the parts. The thickness or amount of the tissue left in front of the main blade and between that and the extra blade, which is the guide for the part to be removed, is ample to assist union, and if the division is a clean one, and the stitches are close and evenly inserted, the pressure and tension are so slight or rather, so divided over the entire cut surfaces, that there is little probability of ulceration through the stitches before union has taken place.

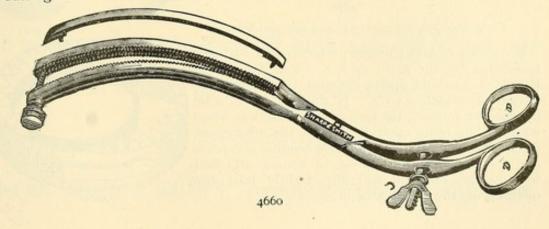
When the part has been removed, the extra blade is displaced, leaving a free border exposed in front of the main blade about a quarter of an inch in thickness. In a few minutes the whole wound can be stitched without any inconvenience. The clamp is, of course, not removed until this is accomplished.

Besides the clamp, the only instruments necessary are the scissors or scalpel, needles, with either silk or fine silver wire for sutures, a few acupressure needles, a few serres-fins, silver pins and some adhesive plaster.



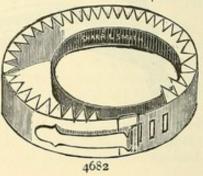
4661-Fig. 2.

For the removal of the redundant portion I prefer scissors to the knife. I am inclined to think the hemorrhage is apt to be less and the cut edges heal more readily by first intention. I cannot give any positive explanation for this, but such is my impression. When the double layers of the scrotum are tightly compressed between the blades of the clamp, it forms a very dense, tough substance, and requires a pair of very strong, sharp scissors to cut through. It is as dense as cartilage. A strong pair of scissors will, with some extra effort, serve the purpose; but to insure an easy and clean removal of the part, I use a cutting instrument which I have named cartilage scissors (Fig. 2). I have dispensed with the rings. These scissors can be grasped and handled with the utmost ease. By the aid of the springs on the inner sides of the handles they are self-acting so far as opening the blades. They are curved on the flat side. They are not only useful for this operation, but will, I think, be found to serve better, and are handled with greater facility, than any other scissors wherever a cutting instrument is needed for cartilage or other dense or thickened tissues.



URETHRAL INSTRUMENTS. Asgirators. See pages 540 to 548.....\$ 4669 Harrison's Bladder Trocar..... 4670 German Silver Hydrocele Trocar..... 4671 " metal case.... 4672 Set of 4 4673 *4674 Curved Reversible 4675 4676 (with set screw) Hydrocele Trocar..... 4677 Cock's Instrument for tapping the bladder per rectum.... 11 25 *4678 Getz' Trocar and Aspirator in case..... 4679 Mallez 4680 *4681 Straight Tube " I 00 *4682 Spermatorrhœa Ring..... SHARP & SMITH 4674 4678 For description, see pages 548 and 549, and below.

Note.—A convenient and perfect female catheter is formed by the parts a, b, c, e and f, and the largest size canula and a catheter tip (instead of trocar tip) attached to f. If the bladder is to be injected or washed, the instrument is used as when washing any other cavity. To use the instrument for washing or injecting the male bladder use parts b, c, e, i and g, with such size of canula attached to c as the end of will slip tightly into the opening of the male catheter.



URETHRAL INSTRUMENTS. FIG. Hunter's Urethral Tourniquet.....\$ 4683 Dolbean's Lithotomy Dilator..... 4684 4685 Walker's Prostatic Divulsor 4686 Penis Congester.... Bumstead's Lamp..... 4687 Hard Rubber Caustic Holder.... 4688 40 Dick's Caustic Catheter Holder..... 4689 2 65 4690 Debris Tube and Obdurator.... 1 85 Circumcision Spatula..... 4691 40 Mussey's Bladder Curette.... 4692 3 40 Gouley's Sharp Hook..... I 00 4693 Brown's Air Tampon for Hæmorrhage.... 4694 3 00 4695 Pasteboard Catheter Scales. No charge. Metal Catheter Scales, all Gauges......ach. 3 00 *4696 14 17 16 18 15 4696

PLEASE DO NOT CUT OR MUTILIATE TRIS BOOK.

In ordering, state number of page and figure, and we ean promptly fill your order.

Ask for "SHARP & SMITH'S" Instruments in ordering through dealers.

APPLIANCES FOR DEFORMITIES AND DEFICIENCIES, CONGENITAL OR ACQUIRED.

PRICES QUOTED ARE TO PATIENTS.

The period when the mechanical treatment of deformities was chiefly a question of brute force is not so remote that the remembrance of it should have altogether escaped from the minds of the medical professors. Formerly surgeons sought to compel by violence, directly or indirectly applied, a distorted spine to resume its normal position. An idea of the primitive method is to be found in the practice, now extinct, of constructing apparatus for the treatment of spinal curvature upon an ideal type of a symmetrically formed spine, and exercising force with the intention of causing the curves of the distorted spinal column to approximate to those of the instrument. The mechanist now recognizes the fact that the laws of nature must be set in operation. Hence he applies himself diligently to study those laws by which the symmetry of the human frame is maintained, as well as the mode of action of the different causes which lead to a deviation from the normal standard. Anticipating these causes, he seeks to check the further progress of the disease, and to remedy its sure results. He no longer seeks to secure his object by a mere empirical use of mechanical force, but he seeks to attain it by a just adaptation of the means at his command, founded upon a careful appreciation and accurate calculation of the kind, direction and amount of force required. The evils of an empirical system of mechanical appliances were shown not only by the inefficiency or actual unfitness of the apparatus made for a given purpose, but also by the imperfection of their construction. They were commonly made either more complex than was necessary, or so simple as to be worthless, or so heavy and cumbersome as to weary the body, and so act as to constrict the muscles, or so light as to yield to the distension. Lightness of an instrument is too often sought at the expense of more important properties.

These evils are the result of an insufficient knowledge of the lesions to be treated. The scientific mechanist constructs his appliances from an accurate estimate of the character and arrangement of the force needed, and of the strength of material required to meet the object he has in view. Thus he avoids on the one hand too great complexity, and on the other a deceptive simplicity of construction. He thus combines durability with the greatest attainable lightness consistent with efficiency. This branch of mechanical surgery needs a special training, and cannot be acquired without a certain amount of surgical education.

We pay special attention to the careful and correct fitting of braces.

Surgeons residing at a distance whose patients cannot visit us for adjustment, will have their orders promptly attended to by sending us the particulars found accompanying each illustration.

We manufacture a variety of shoes to meet every form which the foot can assume. There are four varieties of primary club foot, viz. Talipes Valgus, Equinus, Varus and Calcaneus. Two or more of these varieties may exist together, forming sub-varieties. Talipes Valgus, or lateral yielding of the ankle joint outward, combined with extension and sometimes obliteration of the arches which compose the plantar surface, or sole of the foot, is among the most common of these deformities of the lower extremity, which calls for mechanical treatment.

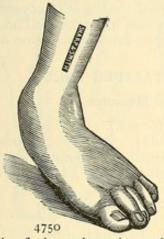
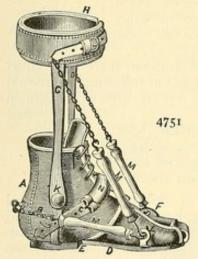


Fig. 4750 exhibits diminution of the niched arches of the foot; the toes are averted, and the external malleolus buries its contours in the external tarsal fossa. In every case it should first be decided whether divisions of the tendons be advantageous, or per contra. In severe cases of Valgus there can be but little doubt that as the peroneal muscles aid in raising the external margin of the foot, divisions of their tendons will often materially lessen the period of mechanical treatment by instantly removing one of the main obstacles, by tenotomy. But a large portion of cases recover without operation by using Dr. L. A. Sayre's Club Foot Shoe, (Figs. 4751 and 4751-A.) The shoe pictured below is arranged for valgus or varus. This simple but ingenious shoe, contrived by Dr. Sayre, is so constructed that it can be applied and secured accurately to the deformed foot, before the elastic force is attached, instead of adjusting the foot to the shoe. This shoe is made with two lateral rods of steel running up to the calf of the leg, with a joint for its ankle, and it has in the sole opposite the medio-tarsal articulation, a ball or socket or universal joint, and three elastic muscles for the purpose of mak-

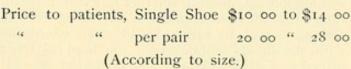
ing flexion and eversion, and an elastic strap in front to secure heel in position; the upper leather laces neatly over the foot, adapting itself more perfectly than if arranged with straps and buckles.



Figs. 4751, and 4751 A. Sayre's Club Foot Shoes.

In ordering these shoes, send the following Measurements.

	INCHES
of foot	
of calf	
of instep	
of ball of foot	
above ankle	
oor to garter	
	of calf of instep of ball of foot above ankle



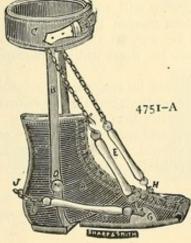
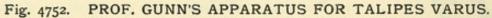
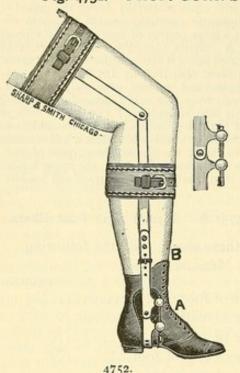


Fig. 4751-A is same as 4751, except that pressure in front to keep heel in position is of "leather," and directly next the foot inside of shoe.

DEFORMITY APPARATUS.—TALIPES VARUS.

This deformity is, in a majority of instances, of congenital origin. Its distinguishing features are retraction of the heel, an inversion of the toes, and a rotation upward of the entire foot, the inner lateral margin of which very often holds a position rectangular to that of the normal position of the limb. The foot, as is shown, is longitudinally turned, so that the external margin stands on the floor, whereas the internal margin is uppermost. The foot touches the ground anteriorly from the external malleolus; the back of the foot has a forward and the plantar surface a backward direction, which, of course, implies inversion of the toes.





Directions for Measurement.

Patient's name (or sex).

Which leg (or both). Inches.

Length from floor to ankle joint.
 Length from floor to knee joint,

4. Length from floor to knee joint, inner inside.....

Length from floor to knee joint, outside.....

6. Length from floor to upper third of thigh

7. Circumference of ankle.....

8. Circumference of calf.....

9. Circumference of upper third of

10. Length of sole of foot.....

11. Circumference of ball of foot..

Circumference of instep.....
 Circumference above ankle,....

This apparatus is especially useful in cases of children one year and upward. Steel bars pass up on each side of the leg, having joints at knee and ankle, which allows motion of joints and at the same time prevents heel from drawing up. The part extending to upper third of thigh prevents brace from turning on leg, holding the foot in natural position. We have found by experience that all short appliances extending only to garter will turn on leg, and thus allow foot to turn. In all cases where the foot cannot be held straight with the hands without pain the tendons should be cut, so the foot can be placed in a straight shoe. The operation should not be done until apparatus is ready to apply at once.

To apply the brace the screw at ankle-joint should be removed to enable you to get heel well down in shoe. The shoe must be laced tightly before placing brace in position on leg. Put screw in place after brace is adjusted.

This apparatus can be lengthened as child grows, and new shoes put on as often as required. Full tension of screw at ankle should not be put on tendo Achilles directly after operation, but should be gradually tightened for the first three or four days.

Fig. 4752 Price to Patients for Apparatus for one leg.....\$15.00 to 20 00 " " both legs.... 30.00 to 40 00 (According to size.)

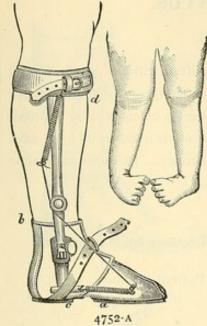


Fig. 4752-A. IMPROVED SHOE FOR TALIPES VARUS.

Directions for Measurement.

- 1. Length of foot.
- 2. Circumference of calf.
- of instep.
- 4. " of ball of foot.
- 5. " above ankle.
- 6. Length from floor to garter.
- 7. Right or left foot.

Price to Patients, one shoe (according to

size)......\$10 00 to 14 00

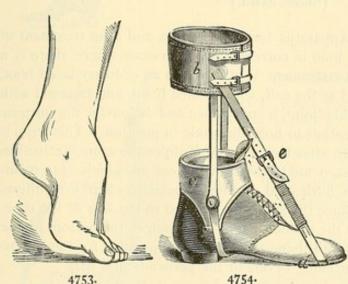
Price to Patient, two shoes (according to

size)......\$20 00 to 28 00

TALIPES EQUINUS.

The chief anatomical characteristic is a permanent contraction of the tendo Achilles, by which the os calcis, the posterior pier of the plantar arch, is raised to such an extent as to cause the whole weight of the body to pass through the front of the foot only, thus destroying the natural heel and toe action during progression. Fig. 4753 shows Talipes Equinus. The plantar arch is materially increased, and the toes, more especially the large ones, are drawn back. The Achilles tendon is found to be extremely tense, and is rendered still more so by any attempt to flex the foot.

Fig. 4754. SHOE FOR TALIPES EQUINUS. Directions for Measurement.

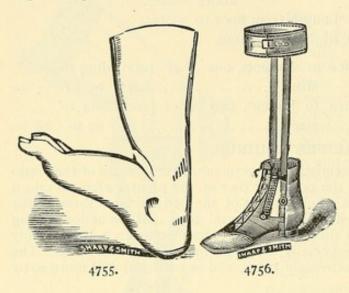


- 1. Patient's name (or sex.)
- 2. Patient's age.
- 3. Weak ankle, resembling varus or valgus?
- 4. Right, left, or both feet?
- 5. Tendo achilles contracted?
- Length from floor to ankle joint......Inches.
- Length from floor to garter.....
- 8. Circumfer'nce of calf
- (If you wish us to furnish shoes, send the following additional measurements.)
- 9. Length of sole of foot.
- 10. Circumference of ball of foot....
- 11. Circumference of instep.....
- 12. Circumference above ankle.....

Fig. 4754 Price to Patients for one shoe (according to size)..\$ 8 00 to 12 00 " two shoes " "...16 00 to 24 00

TALIPES CALCANEUS.

The patient walks on the heel with the toes uplifted without much lateral distortion (see Fig. 4755); the plantar arch is contracted, by which occurrence the outer extremities of the metatarsal bones and the os calcis will be approximated, and the sole of the foot is almost invariably contracted in its long axis. These are the distinguishing features of this deformity. In such cases, shoe figure 4756 is most efficient.



Directions for Measurement.

- 1. Patient's name.
- 2. " weight.
- 3. " age.
- 4. Right or left foot.
- Length from sole to ankle joint,
- 6. Length from sole to calf.
- 7. Circumference of calf.

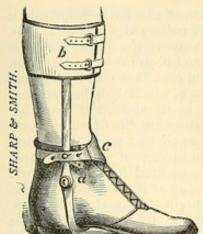
Fig. 4756 Price to patients for brace for one leg......\$10.00 to 20 00

" " two legs...... 20.00 to 23 00

(Shoes extra.)

Fig. 4757 represents an Apparatus for Weak Ankle, and after treatment of Talipes, which will retain the limb in correct position in cases where there is a tendency to Club Foot. The instrument is attached to an ordinary laced boot, has two lateral rods connected at the calf, with padded band, and fastened with straps and buckles, has an ankle joint, a stud above and below for the purpose of applying a strap of stout leather to hold the ankle in position. This strap is used only in Weak Ankles. In after treatment of Talipes the same mechanism is used, but furnished with a stop ankle joint, the object of which is to maintain the plantar surface in a horizontal position, especially where it manifests any tendency to obliquity. Since the stems are riveted to the sole of the shoe, and connected at the calf by the padded band, they compel the bottom of the foot to remain at right angles with themselves. It is impossible for the sole to become oblique without a shortening of one of the perpendicular bars.

See following page for illustration of Weak Ankle Braces.



4758

WEAK ANKLE BRACE.

Directions for Measurement.

- Patient's name (or sex). Patient's age. Weak ankle, resembling varus or valgus? 3. Right, left, or both feet?
- Tendo Achilles, contracted? Length from floor to ankle joint...... Inches.
- Length from floor to garter....

 Circumference of calf.....

 If you wish us to furnish shoes, send the following
- additional measurements:
- IO. Circumference of ball of foot.....
- Circumference of instep..... Circumference above ankle.....

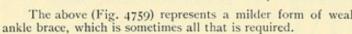
WEAK ANKLE BRACE.

Directions for Measurement.

- Send 'aced shoe to fit foot, or give size of foot, 2. Patient's name (or sex).
- Length from floor to ankle.....

 Length from floor to garter...... Length from floor to ankle..... Inches.
- 5. Circumference at ankle..... 6. Circumference at garter.....
- Which foot, right or left? 8. Which way ankle bone tips, in or out? (Shoes extra.)
- *4758 Price to Patients, for single brace, according to *4759 Price to Patients, for two braces, according to

The above (Fig. 4759) represents a milder form of weak



4759

Fig. 4760-BIGGS' BUNION APPARATUS.

This apparatus consists of a delicate lever of spring steel, with an oval ring in the center which is provided with hinges at its anterior and posterior margin. The apparatus is attached to the instep by a laced band, and the toe to the extremity of the spring by a piece of webbing. It affords the articulation freedom of motion in the natural plane, whilst the malposition of the toe is gradually rectified by constant lateral traction. It can be worn in a shoe.

Directions for Measurement.

Place the foot on paper and trace with pencil. Circumference of ball of foot...... Inches. Price to Patients, single...... \$ 8 00 to 12 00 Price to Patients, double...... 16 00 to 24 00

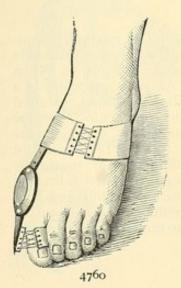
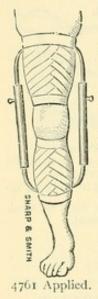


Fig. 4761 represents an instrument for extension of the Knee Joint. It is constructed in the following manner: Two bands or collars of stout sheet iron, about one inch wide, embrace the limb, the one just above the ankle, the other at the upper third of the thigh. The bands are hinged posteriorly, and in front slide together like a dog collar. They are connected on either side by a firmly riveted steel rod, in the center of which works a screw, which can be retained at any given point by a small thumb screw working in its slide, and fastening to the thread of the larger screw. To apply this instrument the Canton flannel adhesive plaster is required. It is applied from the ankle to a point just below the knee, and from a point just above the knee to the top of the instrument upon the leg perpendicularly. The plaster strips are secured in their place by a roller bandage. The connecting rods are extended, the articulating surfaces of the tibia and femur separated, and the limb brought nearly straight again. Sponge is used to absorb the deposits that generally form in and around the joints in this condition of chronic inflammation. If this instrument is applied in the manner above described, and when extension is exerted, the patient will be enabled to bear almost the entire weight of the body upon the limb. With this instrument and the aid of a pair of crutches, the patient will be enabled to exercise in the open air with perfect comfort.



SAYRE'S KNEE EXTENSION APPARATUS.

The necessary measurements in ordering this apparatus are as follows:

- Circumference of Thigh.... Inches.
- 2. Circumference of Leg above Ankle.. "
- 3. Circumference of Knee.....
- 4. Length from above Ankle to upper third of Thigh.....

Price to Patients.....\$20 00

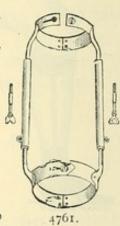
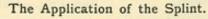
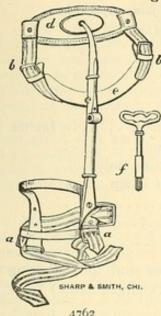


Fig. 4762 represents a splint for Morbus Coxarius. The instrument consists of a flange of steel three or four inches long and about one inch wide (according to the size of the patient), slightly curved, and which, when cushioned, fits directly under the crest of the ilium. At each extremity is a buckle to secure the perineal band, made of buckskin, filled with bran or stuffed with hair, and with ends of web (non elastic) to attach to the buckles. On the outer side of the flange is a ball and socket, or universal joint, to receive the head of the splint which runs down the thigh to within three or four inches of the extremity of the femur, and is capable of being made longer or shorter by a ratchet worked with a key. Near its lower extremity is attached a branch, which, curving over the thigh, extends as far down as the main splint, and both terminate in broad ends with a roller, over which a webbing attached to the adhesive plaster plays, and is secured to the splint by the means of buckles near each lower extremity.

See next page for description of Fig. 4762.

Fig. 4762.—SAYRE'S HIP APPARATUS.





The application of the splint is as simple as its construction. Take strong adhesive plaster, spread on twilled muslin; cut two fan-shaped pieces (shape of accompanying cut), one large enough to reach from the perineum to within two or three inches of the condyle of the femur, on the inner side of the thigh, the other from the trochanter major to a point directly opposite the end of the inner plaster. Sew on the narrow end of each (a) one of the webbings represented (aa) [not on the sticky side.] Apply them to their places, and after pressing them with the warm hand, to obtain a firm adhesion, secure them further by a well adjusted roller. The

secure them further by a well adjusted roller. The instrument contracted, is now laid over the thigh, the webbing (a) firmly fastened over the rollers to the buckles (aa) and the remaining one around the thigh. The perineal band is now adjusted rather

firm, and the instrument extended with the key, just enough to make the patient comfortable, and then locked by pulling the slide down over the spring.

In order to prevent the limb from swelling below the bandage, Dr. Sayre recommends the use of an elastic stocking or knee-cap.

Dr. Sayre has improved his first device in many respects, and the instrument now employed by him is a short thigh spllnt, as shown in Fig. 4763.

It consists of a pelvic band passing partly around the body under the crest of the ilium, well padded on its inner surface, to which usually two perineal straps are fastened for counter-extension; its outer surface holds a ball and socket joint, from which runs a steel bar or rod down the outer side of the thigh to within about two inches of the lower end of the femur. This outer bar is divided into two sections, one running within the other, and gauged or controlled by a ratchet and key, which can make it longer or shorter.

At the lower extremity of this outer bar is a projecting branch going over to the inner surface of the thigh to receive the attachments of the plaster. Both of the lower extremities terminate in a cylindrical roller, over which the tags of the plasters are attached to the two buckles placed at the lower ends of the apparatus.

Directions for Measuring Figures 4762 and 4763.

- 1. Circumference of body between crest of
 Ilium and Trochanter Major.....Inches.
 - 2. Distance from same point to center of Knee-joint..... "
- 3. Circumference of Thigh two inches above Knee-joint.....
- 4. Circumference of middle of Thigh.... "
- Mention if for right or left Hip.
 Sayre's or Sayre's Improved Splints.

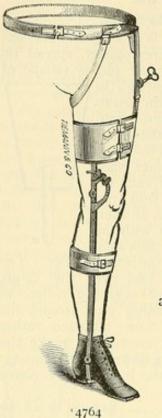


Fig. 4764.- Hutchinson's Hip-joint Apparatus.

DIRECTIONS FOR MEASUREMENT.

- 1. Name of patient.
- 2. Age of patient.
- 3. Weight of patient.
- 4. Right or left leg.
- Length from floor to ankle joint Inches.
- 6. Length from floor to knee-joint..... "
- Length from floor to trochanter major.... "
- 8. Length from floor to crest of illium..... "
- 9. Circumference of calf..... "
- 10. Circumference of thigh..... "
- 11 Circumference of pelvis..... "

If you wish us to furnish shoes send the following additional measurements: (Shoes charged extra.)

- a. Length of foot...... Inches.
- b. Circumference of ball of foot..... "
- c Circumference of instep "
- d. Circumference of ankle.... "
- Price to Patients, small size......\$25 to 30 00 " large size......30 to 40 00

Fig. 4765.-Washburn's Hip-joint Splint.

This is a simple, straight bar of steel, jointed to a pelvic band. It is intended for poor patients, and has neither racks, pinions, nor screws. Extension is made, after fastening the lower end with adhesive strips, simply by the degree of tensity to which the lower perineal straps are adjusted. A knee-cap assists in keeping the splint in place.

DIRECTIONS FOR MEASUREMENT.

- Length from ankle to dorsum illi......Inches.
- 2. Circumference of pelvis "

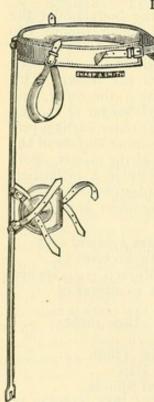
Price to Patients.....\$7 00

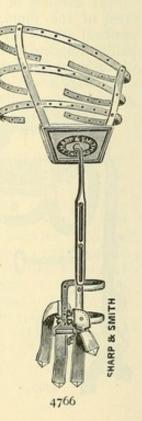
Fig. 4766.-Hyde's Hip Apparatus.

DIRECTIONS FOR ORDERING.

Length from trochanter to knee-joint. Circumference of thigh above knee. Which leg, right or left?

Price to Patients....\$17 00 to 20 00





4765

Fig. 4767 shows Dr. Louis A. Sayre's Long Extension Splint for Hip Joint disease. This Splint extends from the crest of the ilium to the sole of the foot, and turned under it, from which position extension is made. Adhesive straps are applied to both sides of the whole leg in the usual manner, the inside strap terminating in a buckle at the waist belt, and the outside strap terminating in a short piece of webbing, which is passed through a slit in the apparatus, thence under the foot, and through another slit at the end of the foot piece, and buckled at the inside strap just above the internal malleolus. Thus extension is made from the bottom of the foot. Thus, also, when the patient attempts to walk it is the instrument which strikes the ground and sustains his weight without the least increasing the strain on the adhesive straps.

In fact, it is an ever present crutch, allowing motion of the joint, but not allowing weight to be borne on it. Extension is kept up continually, more surface is allowed for adhesive straps, and only the legitimate strain is ever thrown upon it, never the weight of the body. There is one other advantage which this instrument has over others. Usually the physician has to depend much upon the care and judgment of others. With the splint terminating in the middle of the leg, there is no definite point where it should be. Hence there is no need of getting the most definite directions and calling in the aid of others to know if it is acting well, but the patient himself can tell if anything is wrong, The least slipping or relaxing of the straps he must feel, and will have them readjusted.

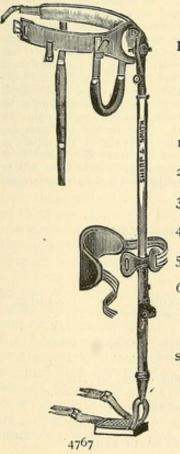


Fig. 4767. DR. LOUIS A. SAYRE'S LONG SPLINT FOR HIP-JOINT DISEASE.

Directions for Measurement.

- 1. Name of Patient.
- 2. Age of Patient.
- 3. Weight of Patient.
- 4. Right or left Leg......Inches.
- 5. Length from sole to crest of Ilium..... "
- 6. Circumference of Pelvis at Iliac Crests... "

Price to Patients, \$25 00 to 45 00, according to size and finish.

Directions furnished for applying these Apparatuses

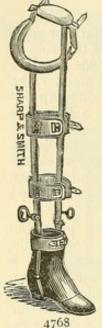


Fig. 4768 represents Dr. Bauer's latest improved Instrument for Extension (in a vertical line), which is attached to a well fitting laced boot, thus appropriting the foot for extension and the tuber ischii for counter-extension. The ratchet and key are the moving power, and do away with adhesive plaster. This apparatus needs no further explanation; its construction speaks for itself.

Directions for Measurement.

Patient's age. 2. Patient's weight (estimated). 3. Right or left leg.

Patient's name.

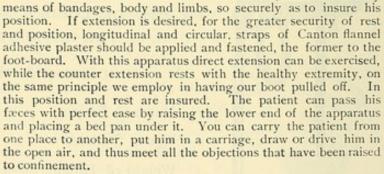
- Length from the sole to the tuber ischii (sound leg) Inches. 5.
- 7· 8. Circumference of thigh.....

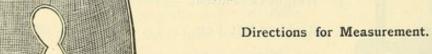
Send a shoe or the following additional measures if you wish us to furnish one:

Length of foot. Inches. Circumference of ball of foot.....

Price to Patients, \$25 oo. Shoes extra.

Fig. 4769 shows Dr. Bauer's Wire Breeches. In the second stage of Hip Disease, where rest and an unchanging position is required, this instrument is resorted to for the accomplishment of so important an object. It is also used in cases where the hip joint has been exsected. A semicircle is cut away to admit of applying dressings to the wound. The apparatus consists of a heavy wire frame fitting the posterior part of the body, and reaching from the axillary cavity to the sole of the feet. The foot plates are movable by means of screws and bands. There is an opening for the arms. To protect it from the corroding influences of urine or of fæces, that part of the apparatus most exposed, is covered thickly with varnish. It is lined with cotton batting. The Patient is placed in the apparatus while under the influence of chloroform, and fastened by





4769

Ι.	Patient's na	me.
2.	Patient's ag	e.
3.	Patient's we	ight.
4.	Length from	sole of foot to axilla, Inches
5.		sole of foot to perineum "
6.	Circumferen	ce of calf "
7.	44	" knee "
7. 8.	6.	" thigh
9.	41	at the nates "
10.		of pelvis at iliac crests "
II.	44	of waist
12.	**	of chest under axillæ "

Price to Fatients, \$15 00 to 25 00.

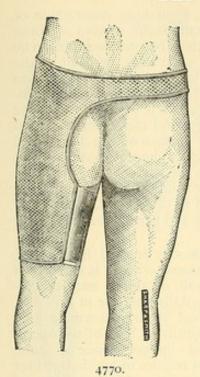


Fig. 4770. Hamilton's Wire Gauze Splint. This consists of an iron wire frame, moulded to the outside or back of the pelvis and thigh, covered with wire gauze. It is kept in place by a pelvic and a broad thigh band, and secured with buckles. Dr. Hamilton advises its use whenever it is desired to secure immobility of the joint, together with exercise in the open air.

DIRECTIONS FOR MEASUREMENT.

Ι.	Name of patient.	
2.	Age of patient.	
3.	Weight of patient (estimated).	
4.	Right or left side.	Inches.
5.	Crest of ilium to the condyles of the	
	femur	
6.	Circumference of the pelvis at iliac crest.	- 66
7· 8.	Circumference at the nates	66
8.	Circumference of the upper part of the	
	thigh	66
9.	Circumference of the thigh above the	
9910	knee	44
	Price to patients	\$15 00

Fig. 4771. DR. L. A. SAYRE'S WIRE CUIRASS.

See following page for illustration.

This is used in cases of hip-joint disease of the third stage and excision of the neck of the femur. It consists of strong wire netting, well padded inside.

The cuirass being properly prepared and well padded, the patient is laid in it so that the anus is opposite the opening and free from any possibility of obstruction, when the well leg is the first to be dressed, by making it perfectly straight and screwing up the foot rest until it is brought firmly against the heel of the patient; having a pad between the foot and the rest to absorb the perspiration; the instep is then well padded with cotton or a blanket; and a roller is carried firmly round it and the foot rest, running up over the limb; but before going over the knee a piece of pasteboard, or leather, or several pieces of folded paper, are placed over the leg, knee and thigh, and the roller carried firmly over this extemporized splint for the purpose of preventing the slightest bending of the knee, when the roller is carried up the entire length of the thigh, around the perineum and over the outer arm of the instrument, and several times back through the perineum, and then across the pelvis, by which means the well limb is made a firm counter-extending force.

Two strips of adhesive plaster from two to four inches in width, according to the size of the patient, are then placed upon either side of the operated limb, and secured with a nicely adjusted roller over the foot and up the limb and thigh, as far as the abscesses on it or the wounds will permit, being careful to leave a sufficient length of the plasters at the lower extremity, free for the purpose of applying them to the foot rest when extension is made, and firmly secured by a well adjusted roller. The foot rest is then screwed up to meet the heel of the shortened limb, and these strips of adhesive plaster are brought down around the foot rest and securely fastened. The foot rest is then extended by the screw, slowly and gradually, at times waiting a few moments for the muscles to yield, which have been so long contracted, until the limb is brought

down to its full extent. It sometimes happens that, from long contraction of the abductors and the tensor vaginæ femoris, subcutaneous section of those



tendons and fascia will be requisite before the limb can be brought to its proper position, even after the head of the femur has been removed. After the limb is brought into this position a roller is carried from the foot over its entire surface; a large wad of oakum is plaited around the wound to absorb the discharge, and the roller is carried firmly over the wound, inner surface of the thigh, and around the pelvis. I place great importance upon this latter part of the dressing, as we thereby compress the tissues, and prevent the burrowing of pus, the oakum, which has already been placed in the wound, allowing of free drainage, no matter how tight the roller may have been applied.

Immediately after the patient is dressed in this way, and has recovered from the anæsthetic, he is capable of being stood up against the wall, or riding out in a carriage or boat, and can take his daily exercise in this way. I have, in several instances, had them removed a long distance, some miles, in fact, within an hour of the operation and without the slightest inconvenience or pain. This dressing will probably not require to be changed for from 48 to 60 hours, or until secretion has been formed to moisten the dressings, when the oakum plug can be removed without hemorrhage. If this dressing does not come away easily, warm water injections will readily float it out. The wound made clean, is again filled with Peruvian balsam and dressed as before. After this it may require dressing once or twice a day, according to the amount of discharge, and the child should be removed from the entire instrument as often as is requisite. The well leg should be removed from the instrument at least once a week, and free movements given to all the joints,

ankle, knee and hip, otherwise we may anchylose them, although they are not diseased. The wire cuirass should be used from a month to two months, according to necessity, after which the patient can be put upon the long splint and allowed to exercise, thereby increasing his prospects of perfect motion of the new joint.

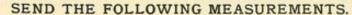
MEASUREMENTS REQUIRED:

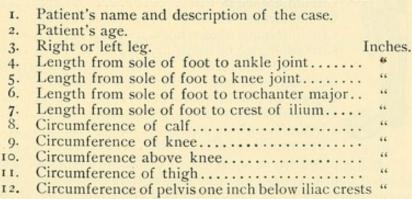
I	Sex of patient.	Circumference of body at nates.
2	General appearance of patient.	Length from axillæ to perineum
3	Distance between base of neck, from	(back).
	one side to the other, passing over 12	Length from vertebra prominens
	the ears and head.	to perineum.
4	Circumference of head at the eyes. 13	Length from perineum to sole of foot
5	" neck.	inside.
6	Length from top of skull to the ver- 12	Length from crest of ilium to sole.
	tebra prominens.	Circumference of thigh at perineum.
7	Circumference of body under axillæ. 16	" midway be-
8	" at the waist,	tween perineum and knee-joint.
9	" between crest 1;	Circumference of calf.
	of ilium and trochanter major.	8 " ankle.
	Price to patients \$20 to \$45, according	

Fig. 4772. APPARATUS FOR HEMIPLEGIA.

(Pa.alysis of one limb.)

The apparatus represented by Fig. 4772 is for hemiplegia, affecting the limb to the hip joint. We have often had occasion to make it, and found it to answer a good purpose, both as a support, and in aiding the restoration of the mobility of the muscles. It answers to the same description as Fig. 4774, but is carried up to the pelvis. On to a broad steel pelvic band we fasten the artificial muscles for flexion or extension, as the case may require. It may also be worn with good results after treatment of hip joint disease, when, by adding a perineal band, the weight of the body is borne by the apparatus.





Patients will furnish their own laced shoes, or send the following additional measurements, if they wish us to furnish them:

a Length of sole of footIr	ches.
b Circumference of ball of foot	**
c Circumference of instep	44
d Circumference above ankle	"
Price to patients, apparatus for one leg, \$30 to	\$40.

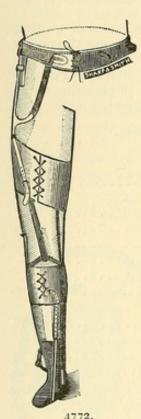
Price to patients, apparatus for one leg, \$30 to \$40 Shoes extra.

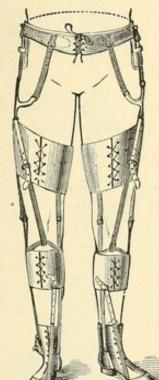
Fig. 4773. APPARATUS FOR PARAPLEGIA.

(Paralysis of both limbs.)

The apparatus for paraplegia answers to the same description as the one for hemiplegia, except that it is double. It is used when both the lower extremities are affected. A general description of the case is necessary to guide us in placing the artificial muscles in the right spot. The directions for measurements are the same as for the apparatus for hemiplegia, Fig. 4772.

Price to patients \$35 to \$70. Shoes extra.





4773.

Flg. 4774.—APPARATUS FOR PARTIAL PARALYSIS OF THE LEG OR THIGH.

This cut shows an apparatus in every way applicable in cases of wasting palsy, or when certain groups of muscles become atrophied, losing the power to perform their proper functions.

With this apparatus, the muscles are excited into action, and, aided by artificial substitutes, made of elastic rubber or steel, placed on the instrument so as to gently exercise the affected parts, will recall them to a sense of duty.

X A	Fig. 4774.—Directions for Measurement. Patient's name and age.	
8	Right or left leg.	
	Length from sole of foot to ankle-joint	nches.
11 //	Length from sole of foot to knee-joint	66
19 / 9	Length from sole of foot to upper third of thigh	46
LLE	Circumference of calf	66
W S	Circumference of knee	"
0 DE	Circumference above knee	44
HAP &	Circumference of thigh	44
IIIA /	Send laced shoes. If you wish us to furnish shoes, the f	ollow-
I H	ing additional measurements are required:	
W.	Length of sole of foot	nches.
	Circumference of ball of foot	66
00	Circumference of instep	46
4774	Circumference above ankle	44
	oth legs are of equal length, the above apparatus is sufficient; but	if the
	limb is shorter than its fellow, the extension apparatus, Fig. 4776	
	ined with it. This will add \$8 oo to the price stated below.	, must
Price to	Patients, Single Apparatus, full length\$25 00 to	
**	" Double " " 30 00 to	00 00

Fig. 4775.—SHORT LEG EXTENSION.

(Shoes extra).

We make an Extension Apparatus, Fig. 4775, to correct the Patient's limp, and to guard againt the danger of spinal curvature, induced by the result of infantile paralysis, when the bones have not kept pace in growth with those of the corresponding extremity.

It consists of a steel sole and pillars. The steel sole is underlaid with leather, which is riveted to it.



4775. (We make several patterns.)

Fig. 4775.—EXTENSION FOR A SHORT LEG. STEEL SOLE AND PILLARS.

Directions for Measurement.

- 1. Have the patient (both feet bare) stand up; place books or blocks of wood under the short foot until the shoulders and pelvis are in horizontal plane; then measure these books or blocks, which will be the height required for extension.
 - 2 Send us a well-fitting shoe.
 - 3. Right or left leg.

If we are to furnish shoes, send the measure as directed.

Fig. 4776 Represents a Cork or Willow Wood Soled Shoe, to be Applied to a Limb that is Shorter than its Mate.

The importance of this Shoe is that it gives stability. It thus allows of the Patient's body being sustained with ease in walking. The cork or willow sole is made of such height as to correspond with the length of the other leg.

In measuring for this Shoe, please observe same directions as with Fig. 4775.

*4776 Price to Patients, Willow Extension .. \$ 5 00 *4776 " Cork " .. 10 00

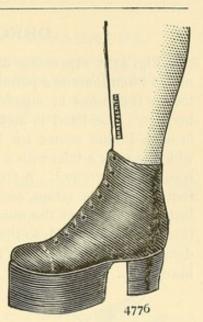
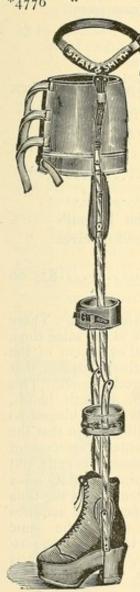


Fig. 4777.—BRACE FOR PARALYSIS AND SHORTENING OF LIMB.

Price to Patients......\$30 00 to 50 00 (Corset and Shoes extra.)

This illustration shows a Brace devised for Patients having hip-joint disease, together with partial paralysis and slight spinal curvature, and consequent shortening of the limb. The Brace is provided with a leather-covered cork sole extension, giving the proper length to the deformed limb, as well as assisting in giving proper and even support to the spine. This Brace gives power and force to the paralyzed limb, allowing the physical force to control the parts more effectively than could be otherwise done, thereby assisting nature to more fully perform its functions, thus preventing the wasting away of the limb. When desired, we furnish either a special Corset made to order, or one of the perforated leather ones, shown by Figs. 4705 and 4706, page 767.

Send shoe, giving full particulars of case, that we may be assisted in making a correct fitting, as well as acting brace.



4777

Fig. 4778 represents an Apparatus for cases of Shortening. It is most useful when there is a permanent shortening of the limb resulting from anchylosis. It consists of a padded thigh band, secured to the limb with straps and buckles. The band is attached to a strong metal stem by a hinge. The stem is open in the center for lightness, and has a foot plate fastened below, into which is sunk a tube with a rubber bottom, which fills up the space between the foot and the ground. A strong knee cap passes over the patella, and, with the foot and ankle straps, secures the leg firmly to the apparatus. When this instrument is worn the weight is received by the thigh band and transmitted thence to the ground, so that the knee is guarded from all strain, while the tendency to spinal deformities is arrested, which is always the result of a shortened lower limb.

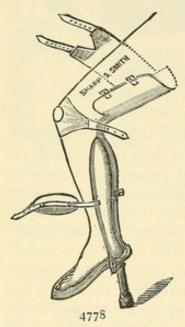


Fig. 4778. Directions for Measurement.

- . Patient's name.
- 2. Right or left Leg.
- 3. Length from Sole of Foot to Knee-joint. Inches.
- . Length from Knee-joint to upper third of Thigh.....
- . Circumference of the Thigh..... "
- 5. Circumference of the Calf..... "
- 7. Degrees of the angle of flexion.....
- Distance from the heel of the Patient's Shoe to the ground when standing erect

Price to Patients.....\$35 00

Fig. 4779 represents Sharp & Smith's Apparatus for Anchylosis. There are many cases where the joint is free from disease, but where at the same time, it assumes a distorted condition. In these cases a mechanical extension of the contracted muscles is so clearly indicated as a means of curative treatment, that anything which tends to facilitate this action may be considered a boon. This instrument consists of two lateral rods connected with thigh and calf bands, and a joint at the knee, a screw connecting the calf and thigh bands, hinged so as to admit of extension. By examining the drawing, it will be seen that the greatest amount of resistance must be found just at the anterior surface of the knee, over which the knee cap passes; secondly, against the calf; and thirdly, at the thigh. The center joint becomes the fixed point of rotation for the thigh, and by levers thus diminishing the angle of the knee but, as the tibia is acted upon by the lower band and knee cap in such a manner that it acquires a disposition to rotate backward around its own center, and as the same thing cannot occur at the thigh because it is firmly fixed to the pelvis, posterior laxation of the head of the tibia must take place, although this is generally of so small an extent as to be hardly noticeable. For illustration see next page.

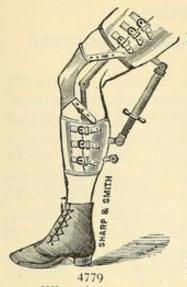


Fig. 4779.—SHARP & SMITH'S APPARATUS FOR ANCHYLOSIS. (We make several Patterns.)

(For description of this Apparatus, see preceding page.)

Directions for Measurement.

- Right or left Leg.
- Patient's name.
- Patient's age. 3.
- Length from floor to Ankle-joint Inches. 4.
- Length from floor to Knee-joint..... 5.
- Length from floor to upper third of Thigh 6.
- Circumference above Ankle.....
- Circumference of Calf..... 8.
- 9. Circumference above Knee.... 10.
- Circumference of Thigh..... II.
- When long apparatus, extending to bottom of foot is wanted, and you wish us to furnish shoe, send the following additional measures: Inches.
 - a. Length of sole of foot.....
 - b. Circumference of ball of foot.....
- c. Circumference of instep..... d. Circumference above ankle.....
- Price to Patients for Apparatus......\$20 00

Fig. 4780.—MARKLEY'S PATELLA SPLINT.

This splint is intended for the treatment of fractures of the patella and dislocations of the knee joint, and may be utilized in cases of fractures either just above or below the knee.

It consists of two well padded iron troughs connected with hinges and circle stop so that it may be used straight, or flexed to any desired angle.

Traction on the pads may be made by means of the two long screws, which are shown on the under side of the splint, and turned by a wrench. Each screw is provided with a sliding nut, which moves in a slot cut in the trough and to which is attached the traction bands CC. The bands BB assist in holding the pads firmly in place, while the bands AA hold the splint to the limb. As this splint can be made useful in many ways it should be in the hands of every practitioner.

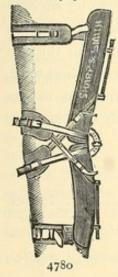


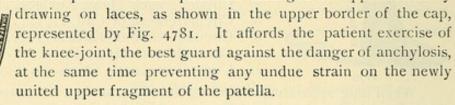
Fig. 4780. Directions for Measurement.

Length from above Ankle to upper third of Thigh. Inches. Right or left Leg..... Circumference of Thigh..... Circumference of Calf.....

Price to Patients......\$12 00

Fig. 4781.—KNEE-CAP FOR AFTER-TREATMENT OF FRACTURED PATELLA.

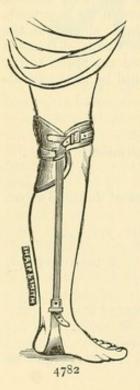
Authorities on surgery say that great care must be taken not to rupture the ligaments of the newly formed union, which so often happens after recovery of the patient from fractured patella. For the purpose of guarding against such a recurrence, we make the apparatus shown, Fig. 4781. It consists of a knee-cap made of buckskin or satin jean, which is adjustable to the knee by buckles or laces. It is provided with a pair of coaptation pads, to retain the newly united patella in place. These pads are arranged to approximate by



Directions for Measurement.

1.	Circumference above Knee	nches.
2.	Circumference of Knee	"
3.	Circumference below the Knee	44
Pri	ice to Patients	\$5 50

Fig. 4782.—LEWIS' APPARATUS FOR TREATMENT OF FRACTURE OF THE PATELLA.

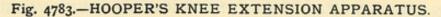


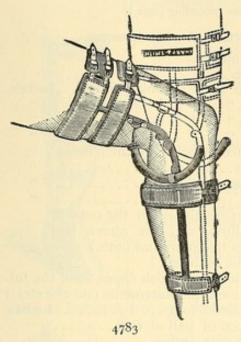
4781

This apparatus consists of a broad pad, resting on the popliteus, to keep the knee extended, and a narrow pad, fitting the upper border of the patella. A strap connected with the latter one is first passed through a ring attached to the popliteal pad, then continued down the leg on each side, being finally buckled to a lined foot pad. This makes the foot a fixed point for extension, and the ring through which the strap passes gives it also a direction backward, maintaining a firm hold of the upper fragment of the patella, whilst the lower fragment is readily kept in place by a strip of adhesive plaster.

Directions for Measurement.

1.	Circumference above	knee		 	 .Inches.
2,	Length from sole of	Foot to	Knee	 	 . "
Dei	ce to Patients				\$6.00





This apparatus consists of a band encircling the thigh, of another for the ealf, and of one above the ankle. These are fastened to two lateral shafts provided with joints at the knee. Two semi-circular brass tubes, fastened to the lower calf shafts, contain each a spiral spring, acting on bows fastened to the thigh shaft, thus exerting constant elastic extension, which is sure to overcome muscular contraction soon.

Directions for Measurement.

Circumference above knee	Inches.
" at knee	46
" below knee	
" above ankle	66
Length from above ankle to knee	"
" knee to upper third of	
thigh	

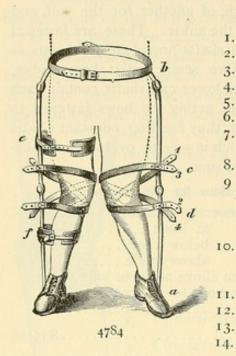
Price to Patients......\$35 o

Fig. 4784 represents our Apparatus for Knock Knee (Genu-Valgum). This deformity, when occurring in young children, is attended with very grave consequences, inasmuch as it rarely happens that both legs yield in the same ratio, or present the same angle of inversion. This deformity is commonly complicated with Talipes Valgus. Sometimes the latter appears as the pre-existing impediment, Knock Knee having been superadded in time. A careful examination of the trouble, under a proper degree of extension and counter-extension of the extremity, will disclose, as the direct cause of Knock Knee, a marked contraction of the external duplicature of the vagina femoris inserting at the capilalum fibulæ, and occasionally a contraction of the biceps femoris, which involves a disturbance of the normal perpendicular position of the entire leg, resolving it into an angle. In cases of simple ligamentous weakness, instruments furnished with knee joints are very useful, as they aid in sustaining the perpendicular position of the limb; but where there is deflection to any serious extent, nothing will be able to overcome the deformity but an apparatus without a joint at the knee, extending from the pelvis to the ground, as represented in Fig. 4784. It consists of two lateral stems, secured to the boot by copper rivets. A padded band encircles the body, and a knee cap secures the knee to the lateral stems, and padded straps above the ankle and around the calf and thigh combined, direct the force outward. This instrument is exceedingly light, and, as it admits of free muscular motion, answers admirably in these cases.

For illustration of Fig. 4784, see following page.

Fig. 4784.—APPARATUS FOR KNOCK-KNEES. (GENU-VALGUM.)

(For description of these Braces, see preceding page.)



Directions for Measurement.

Patient's name.
" age.
Length from floor to ankle jointInches.
" " knee joint "
" " hip joint "
" " iliac crests "
Circumference of pelvis one inch below "
iliac crests "
Circumference of thigh at c "
" leg at d "
(A stick to be placed on the outside
of the limb, and the above two
measures taken around both.)
Right, left, or both feet?
If you wish us to furnish shoes, send the fol-
lowing additional measurements (shoes extra:)
Length of sole of footInches.
Circumference of ball of foot "
" instep "
" above ankle "

Price to Patients for pair Braces (according to size).....\$30 00 to 40 00

Fig. 4785 represents Sharp & Smith's Apparatus for Bow Legs. Few distortions are more common, and yet they do not receive that attention which they demand. Parents, not understanding the cause of the deformity, think it will disappear as the child advances in years. Those who consider what influence one class of deformities will exert in the production of others, know that an incurvation of the tibia may, if neglected, lead to a loosening of the ligamentous attachments of the knee joint, disturbance of the functions of the hip joint, and even deflection of the spinal column.

The direction assumed by the tibia may be lateral, anterior, or a combina-

tion of both.

This deformity is primarily due to a softening of the bones, the result of a change in the chemical properties of the component ingredients of the osseous structure, viz., a diminution of earthy matters.

This deformity requires constitutional as well as mechanical treatment.

From the softened condition of the bones, the legs are unable to bear the

weight of the body, unaided by artificial means.

Our instrument is fastened to the sole of the shoe, consisting of two lateral rods extending above the knee, with joints at ankle and knee, and two round pads for the condyles to bear against the rods. The bars are connected by padded bands above and below the knee. On the side of the concavity we establish an artificial base, with two studs on the lateral bar, to which are attached elastic straps with buckles and sliding pad. These straps and pad are placed inside of the lateral bar, on the side of the convexity, and buckled on the concave side of the limb; by this means we get an extension of the tibia and fibula, and a depression of the arc by the elastic pressure, until the limb has been brought into a normal shape.

For illustration of Fig. 4785, see next page.

Fig. 4785.—BOW LEG APPARATUS.

(For description of this Apparatus, see preceding page.)

(For description of this Apparatus, see preceding page.)
Directions for Measurement.
1. Patient's name (or sex). 2. Which leg (or both)? 3. Length from floor to ankle joint
Price to Patients, per pair Braces\$20 00
Fig. 4786.—SHORT BOW-LEG APPARATUS.
Directions for Ordering.
1. State which leg, right or left, or both?
2. Distance from floor to ankle joint.
3. " " knee "
4. Circumference at calf.
Send laced shoe to fit, or give size of foot. The measure-
ment for length of brace should be taken inside of limb.
Price to Patients, per pair Braces\$15 00
Fig. 4787.—APPARATUS FOR ANTERIOR CURVATURE OF THE TIBIA.
Directions for Measurement.
1. Patient's name (or sex).
2. " age. 3. Anterior curvature of the tibia.
c→ 4. Which foot?
5. Length from floor to ankle jointInches. 6. "garter (c)"
7. Circumference of calf
If you wish us to furnish shoes, send the following additional measurements:
a. Length of sole of foot
b. Circumference of ball of foot
c. " instep " above ankle "
Price to Patients, Single Brace\$12 00 to 18 00

Fig. 4788 represents Dr. Lewis A. Sayre's instrument for extension of the Ankle Joint. This instrument consists of a firm steel or hard rubber plate, shaped to the sole of the foot, with a hinged joint at the heel, attached to a rod slightly curved at the bottom, and extending up the back of leg to a point near the knee.

Over the instep is an arch like the top of a "Stirrup" with a hinged joint at its summit, from which springs another rod, which runs up the front of the leg, and is of the same length as the other.

These rods are made with ratchet and cog, for extension, and connected at the top by a band of sheet iron, on one side of which is a hinge, and on the other a lock like that of a dog collar.

The instrument is applied with Canton flannel, adhesive plaster (made expressly for extension purposes), cut in strips about one inch in width, long enough to reach from the ankle to a point near the tuberquity of the tibia, and placed perpendicularly all around the limb.

The plaster is secured in its position, to within an inch of its upper extremity, by a well adjusted roller bandage.

The instrument is then applied, and the foot firmly secured by a number of strips of adhesive plaster to prevent its slipping, and the ends of the plaster at the top of the instrument turned over the collar, which has been previously locked just tight enough to be comfortable, and secured by a turn or two of the bandage. A roller should be carefully applied over the foot to prevent the plaster from slipping.

This Apparatus was applied in the presence of the class at Bellevue Hospital by Dr. Sayre, on the 24th of February, 1864, in the manner above described. The patient was a sixteen year old girl; as soon as the instrument was properly adjusted, she stood upon her feet, without the aid of crutch or cane, for the first time in two years, and without any pain whatever, but the instant the screws were shortened, the pain was intense.

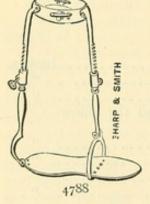
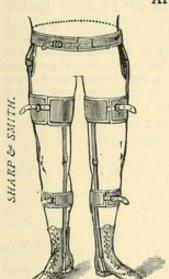


Fig. 4788. SAYRE'S ANKLE EXTENSION APPLIANCE.

Directions for Measurement.

Price to Patients.....\$22 00

DEFORMITY APPARATUS. APPARATUS FOR WEAK LIMBS.



Directions for Measurement.

1.	Patient's name.	
2.	" age.	
3.	Length from floor to ankle joint Inc	ches.
4.		**
5.		66
4· 5· 6.		"
7.	Circumference of pelvis 1 inch below	ec .
8.		44
9.		44
	Sand well fitting laced shoe or if you wis	

Send well fitting laced shoe, or if you wish us to furnish them, the following measurements:

a.	Length of sole of	foot	nches
b.	Circumference of	ball of foot	46
c.	"	instep	44
d.	"	above ankle	66

Price to Patients, adult's size (shoes extra)\$35 oo to 70 oo " children's " 25 00 to 35 00

Fig. 4790.—APPARATUS FOR OVER-RIDING TOES.

The apparatus for over riding, or "hammer toes," consists of a steel sole, arranged with slits corresponding to the spaces between the toes. A strap of webbing is passed through these slits and over the contracted toe (or over

each and all, as the case may require), and buckled or tied under the sole, tense enough to straighten the toe. This apparatus is kept in place by a thin silk, linen, or cotton covering, laced to the instep, and may be worn in an ordinary shoe.

Directions for Measurement.

Place the foot on paper and trace with pencil.

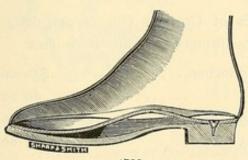
Circumference of ball of foot.

instep.

4790

Price to Patients, Apparatus for one foot...... 7 00 to 15 00 Fig. 4790 " two feet..... 14 00 to 30 00





Consists of a spring tempered steel sole, constructed of the exact shape of the arch of the foot in its normal position. This sole is placed in the shoe and fastened at the heel by a screw, having the anterior portion free to move as the weight of the body is thrown upon it.

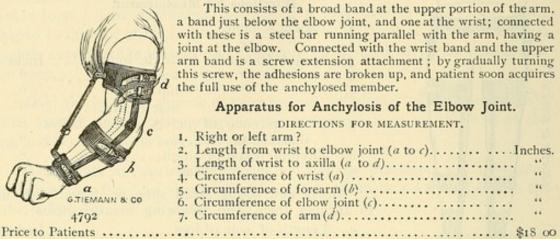
Directions for Measurement.

Send a well fitting strong laced shoe.

2. Send a plaster cast of the foot with its arch elevated to the normal position.

Fig. 4791 Price to Patients......\$4 50 to 6 00

Fig. 4792.—APPARATUS FOR PARTIAL ANCHYLOSIS OF ELBOW JOINT.



This consists of a broad band at the upper portion of the arm, a band just below the elbow joint, and one at the wrist; connected with these is a steel bar running parallel with the arm, having a joint at the elbow. Connected with the wrist band and the upper arm band is a screw extension attachment; by gradually turning this screw, the adhesions are broken up, and patient soon acquires the full use of the anchylosed member.

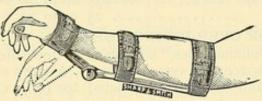
Apparatus for Anchylosis of the Elbow Joint.

DIRECTIONS FOR MEASUREMENT

	DIRECTIONS FOR DIMENSORMANTIA	
	Right or left arm?	
2.	Length from wrist to elbow joint $(a \text{ to } c)$ Incl	nes
3.	Length of wrist to axilla (a to d)	
	Circumference of wrist (a)	**
5.	Circumstence of forearm (0;	66
6.	Circumference of elbow joint (2)	4.6
7.	Circumference of $arm(d)$	

Fig. 4793 represents an Apparatus for Contracted Wrist. It is intended for correcting cases of flexed wrists, caused either by contraction of the muscles or by partial anchylosis.

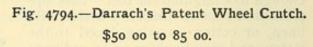
The cut fully shows the manner in which force is applied, and, if well fitted, good results can always be obtained.



Directions for Measurement.

I. Circumference of arm just below the elbow. 2. Circumference of arm between wrist and elbow. 3. Circumference of hand between wrist and thumb joint. 4. Length of forearm to wrist. 5. Length from wrist to thumb joint.

Price to Patients (according to size) \$20 00 to 30 00



DIRECTIONS FOR MEASUREMENT.

Width of body in direct line from armpit to arm-pit; distance from arm-pit to floor. To measure width of body correctly, place a stick under each arm, close to the body, projecting in front parallel, and take distance between (not including curve of breast.)

Prices of Crutches (Fig. 4794), designated by distance from arm-pit to floor.

	16	to	25	inches									. ;	\$50	00
	25	to	35	**										60	00
	35	to	45	"										70	00
•	45	to	55	"										85	00

Sunshades and Fixtures, from \$6 00 to \$12 00.



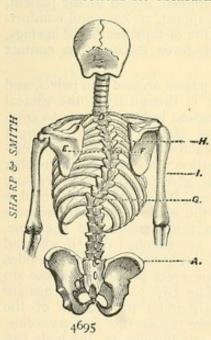
SPINAL DEFORMITIES AND APPARATUS.

In cases of Spinal Disease, when we cannot have the patient for the proper adjustment of the instrument, if practicable, a plaster of Paris cast of the trunk would be desirable to model the apparatus from, in order to obviate the liability to error, and to insure a proper application and save the medical attendant much alteration and manipulation. In order to show the deformity, the attendant may place a plate of glass upon the spine of the patient, and so adjust it as to cover the whole trunk, taking care that the patient stands with his spine in the medial line of the plate as straight as possible (heels together). By means of a delicate brush and some paint the contour may be accurately drawn upon the glass. By this means the curved lines of the spine and its deviation can be marked. This done, a large sheet of paper must be placed on the glass and the lines of the body transferred thereto. With the above contours, together with a description of the case, the following measurements are required, viz.: Circumference of the body at the crest of the ilium and under the axillæ, and the length from the crest of the ilium to the axillæ.

Inasmuch as the human body is purely mechanical in the formation and arrangement of all its parts, from the largest organs to the finest cells, it follows that any variation from the primitive arrangement of any one of these must involve corresponding morbid manifestations, not only in the parts immediately concerned, but also in those which are associated with them, either by juxtaposition, continuity or function.

The equilibrium of the spine is constantly being disturbed by the irregular distribution of weight, or from habit or indolence, an indisposition to sit erect, and the constant strain unduly exercised against the weakened ligaments, added to the gravital weight of the head and shoulders, finally induce a permanent change of form.

Directions for Measuring for Figs. 4696, 4697, 4698, 4699 and 4703.



- Patient's name (or sex). age. weight (estimated.) Inches. 4. Distance from sacro-lumbar articulation to vertebra prominens... (C to D)5. Distance from sacro-lumbar articulation to first vertebra involved. (C to G) 6. Distance from sacro-lumbar articulation to last vertebra involve.. (C to D)Distance from crest of ilium to axilla, right side.....(A to H) Distance from crest of ilium to axilla, left side.....(A to H) 9. Distance from the center of one scapula to the center of the other. (E to F)10. Horizontal (transverse) diameter of
- below the iliac crests.

 In addition to the above measures, please state if the *Convexity of the Curve is to the right or left side.

the protuberance.

11. Circumference of the chest under

12. Circumference of pelvis, one inch

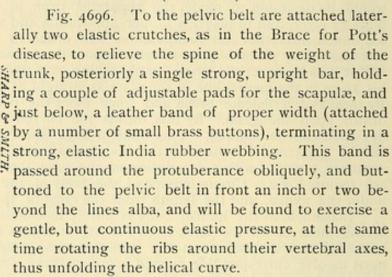
axilla.....(*H*)

*In the Figure of the accompanying Skeleton it is to the right.

WE MAKE A SPECIALTY OF DEFORMITY APPARATUS.

SPINE BRACE FOR LATERAL CURVATURE.

(SCOLIOSIS.)



Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$35 00

SPINE BRACE FOR POSTERIOR CURVATURE.

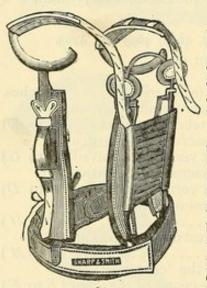


Fig. 4697. "It is intended to afford an entirely elastic continuous and gentle pressure to the parts to which it is applied, giving to the patient, along with adequate support, an easy and comfortable feeling. It is made of light tempered springs, and softly padded wherever it comes in contact with the body.

"The belt below passes around the pelvis, and the principal weight is thrown upon the gluteal region. The front portion is broad, so as to compress the protruding abdomen. Two upright parallel bars pass on each side of the posterior elevation, having a portion of silk elastic rubber between them, which gives a constant pressure upon the protuberance. If the latter is inflamed, a portion cut out of the elastic material prevents direct pressure upon the extremity of the bone. Upon these side bars are attached two elliptic and

padded springs, yielding to every pressure, and adapting themselves to the sides of the spinal column and keeping the body in an erect position. These are removed or applied by a very simple process. The two padded crutches are elastic, and elevate the body by pressing mostly under the margin of the scapula, thus obviating any tendency to pressure upon the axillary veins. They are constructed in such a manner that the equilibrium of the body can be restored in case one shoulder is depressed."

Directions for measuring, see Fig. 4695, page 761.

Price to Patients......\$35 00

WASHBURN'S BRACE FOR POSTERIOR CURVATURE OF THE SPINE.

(Potts' Disease.)

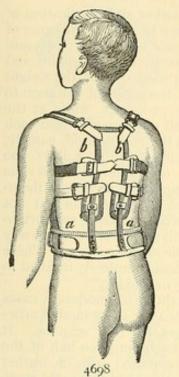


Fig. 4698. This Brace was designed and first used in the St. Luke's Hospital, New York, by Dr. Charles Washburn, and has since, as then, been very successful.

"Success with this apparatus depends entirely upon the faithfulness with which it is kept adjusted to the spine of the patient. It is only necessary that a gentle pressure should be maintained if it is constant. As the spine approaches its normal shape the curve of the brace will require to be altered from time to time. The steel has a soft temper, so that it will take the form in which it is bent when considerable power is applied, but will be sufficiently elastic for the purposes of this apparatus. With children's braces the necessary bending is readily accomplished by hand.

"In the accompanying figure aa is a steel band which passes half way around the pelvis, just above the trochanters, bb are two flat bars of steel, parallel to each other, and curved upon their flattened sides to the form of the spine to which the apparatus is fitted. These bars are curved a little less than the spine, so that when secured in position their elasticity will constantly operate to rectify the spinal curve. The cross bar at the upper ends of the parallel ones is firmly riveted to them, and is to cross the back just above the spines of the scapulæ. At the ends of this bar are affixed buckles to receive the shoulder straps; cc are two movable pads which slide upon the bars to which they are attached—these are best stuffed with chopped cork. These compresses are to be brought one upon each side of the projecting knuckle of spine and secured firmly by means of the screws provided for that purpose. Buckles are attached to various parts of the brace, by means of which it is secured to the front part of the apparatus, which consists, as shown, of a piece of twilled muslin, or other strong material, which covers the chest and abdomen, and is provided with straps. Such parts as are in contact with the body are carefully padded."

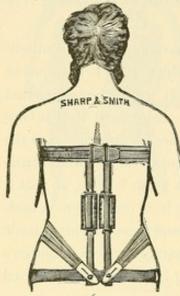
Directions for measuring, see Fig. 4695, page 761.

Price to Patients.......\$15 00 to 20 00

Fig. 4699.—DAVIS' APPARATUS FOR CARIES OF THE SPINE.

[Extracted from Hamilton's Principles and Practice of Surgery.]

"The principles which ought to govern the construction and application of mechanical supports, in cases of caries of the spine, are the greatest degree of lightness, compatible with the requisite firmness, accurate adaptation; pressure in opposing directions upon the spinal column, sufficient to insure support and



steadiness, and to transfer, in some degree, the weight of the spinal column from the affected vertebræ to their corresponding oblique processes, while at the same time these vertebræ shall not separate from each other in a manner to defeat the end desired, namely, their final union and consolidation by callus; the pressure being so applied on either side of the spinous processes, and not upon the processes themselves, so that it shall cause the least pain and not endanger ulceration or excoriation, giving support to the tumid or pendulous belly; interfering in no way with the free motions of the arms or legs. These indications we find more or less completely fulfilled in the apparatus of Davis, Bigg or Taylor."

This brace is only adapted to moderate cases where the curvature is between the sacro-lumbar articulation, and the lower edges of the scapulæ. It consists of a band of steel encircling one-half of the pelvis, and having the ends united with a leather

pelvis, and having the ends united with a leather band; to this are attached two upright parallel bars of thin well tempered steel, shaped to fit the spine and curvature, and having two pads placed in a proper position to exert a gentle pressure on the protuberance. The tops of these bars are held in place by a band passing around the chest, to which is attached a strong piece of cloth which forms the front of the brace.

Directions for measurement the same as for Tiemann's brace, No. 4695.

Directions for measurement, see Fig. 4695, page 761.

Price to Patients.....\$20 00

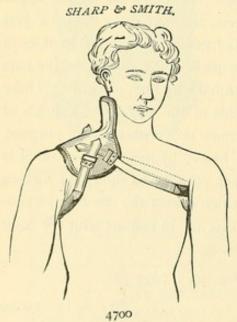


Fig. 4700.-WRY NECK APPARATUS.

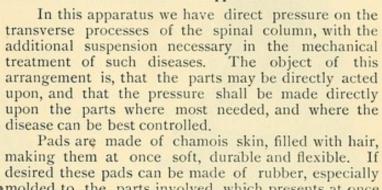
(We make several patterns.)

Directions for Measurement.

- 1. Patient's name (or sex).
- 2. " age.
- 3. Head leans to right or left side?
- Circumference of the neck..... Inches.
- Length of the neck at side, from clavicle to mastoid process....
- 6. Circumference of chest under axilla '

Price to Patients.....\$5 00

Fig. 4701.—Dr. Chas. Taylor's Apparatus for Potts' Disease of the Cervical Vertebrae and Chin Rest Attachment Applied.



Pads are made of chamois skin, filled with hair, making them at once soft, durable and flexible. If desired these pads can be made of rubber, especially molded to the parts involved, which presents at once a smooth and easy acting surface. To the brace is attached by buckles (as seen in cut), a broad, substantial belt crossing the abdominal parts and chest, assisting in holding the apparatus in a proper position.

Directions for Measurement.

Give as full particulars of the case as is possible, whether the curve is to the right or left, and if convenient, a plaster cast of the patient's back; if not possible, take a piece of soft lead, mould it to the back, being particular to give all of the indentations or prominences caused by the disease, covering the full length of the spine, and trace the curves on a paper to be sent with order; circumference of the body between crest of ilium and axilla.

Circumference of body one inch below crest of ilium. Distance from center of one scapula to center of the other.

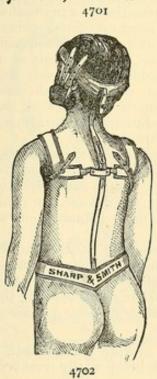
For the additional attachments controlling the cervical portion of the spine, give the following measurements: Vertebræ prominens to base of head. Circumference from vertebræ prominens around chin, giving particulars as to formation of inferior maxillary.

Fig. 4701. Price to Patients......\$30 00 to 50 00

Fig. 4702.—Dr. Thomas M. Markoe's Brace for Torticollis.

DIRECTIONS FOR MEASUREMENT.

1.	Patient's name (or sex).	
2.	" age.	
3.	" weight.	
4.	Distance from sacro-lumbar articulation to vertebra prominens	nches.
5.	Distance from sacro-lumbar articulation to base of skull.	**
6.	Circumference of pelvis one inch below iliac crest	
7.	Circumference of chest under axilla	"
8.	Circumference of the head	66
Pri	ice to Patients\$35 00 to	45 00



Sharp & Smith's Corset Brace for Posterior and Early Stages of Lateral Curvature.



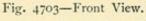
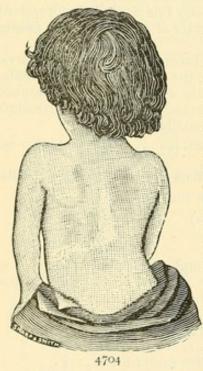




Fig. 4703-Back View.

Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$25 00



In the accompanying illustrations, Figs. 4704, 4705, 4706, we show the application of a perforated leather jacket to a case of antero-posterior curvature of the spine combined with a slight inclination to lateral curvacuture. The brace consists of a leather corset accurately moulded to the body and properly strengthened with well-tempered steel stays, shaped to conform to the contour of the body when in a normal condition, thus furnishing special support to the vertebræ involved.

Owing to its funnel shape above the waist and by means of crutches placed under the arms, it produces partial suspension, which not only pre-vents the further spread of the disease, but completely controls the disposition to inflammation so common to these cases.

Fig. 4704 shows the condition of the patient when presented for treatment. Fig. 4705 gives a front view of the corset after application. Fig. 4706 presents a rear view of the same, showing the steel stays bearing upon the transverse processes of the vertebræ.

These braces are a great improvement over plaster of Paris jackets, being much lighter, more comfortable and cleanlier, besides being easily removed.



4705 .- Front View.

They are perforated, permitting the free passage of air, and allowing the body to throw off its natural exudations.

We have applied a large number of them within the past two years, and so far as we have been able to learn, every one of them has proven satisfactory to both physician and patient

Better results have been obtained by sending the patients to us, that we may



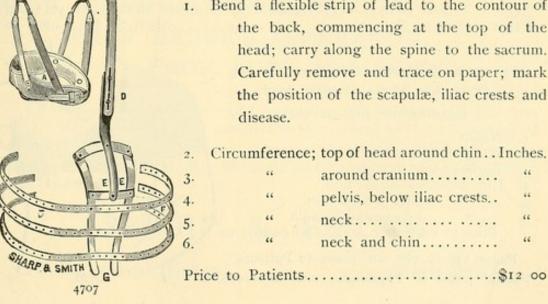
4705.-Back View.

apply the brace ourselves, but where this is not feasible we can secure a fit if furnished with a well-fitting plaster Paris jacket, having the diseased portion and all prominences carefully marked on the inside of the jacket. plaster Paris jacket, must, however, be applied while the patient is suspended by Dr. Sayre's or some similar method. No measurements are necessary other than the careful marking of the jacket, which should include the iliac crests and extend to or above the axillæ. Price to Patients \$25 00 to 40 00

SAYRE'S JURY MAST.

Directions for Measurement.

1. Bend a flexible strip of lead to the contour of the back, commencing at the top of the head; carry along the spine to the sacrum. Carefully remove and trace on paper; mark the position of the scapulæ, iliac crests and disease.



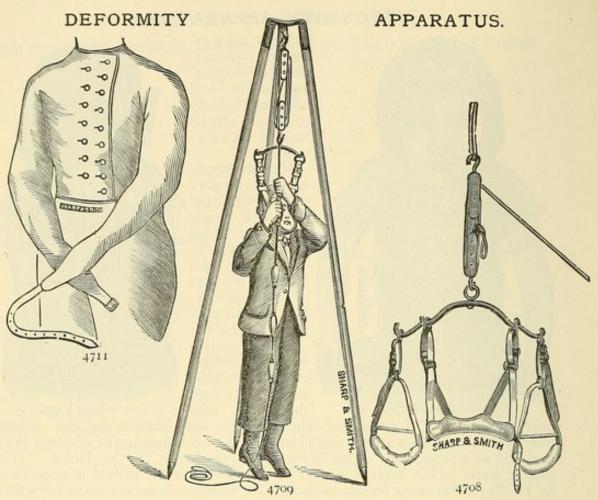


Fig. 4708.—Sayre's Suspension Apparatus.

DIRECTIONS FOR MEASUREMENT.

Age of patient.

2. Circumference of head around chin.

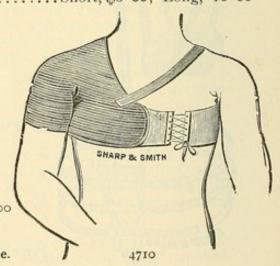
Fig. 4710.—Apparatus for Preventing the Dislocation of the Shoulder Joint.

DIRECTIONS FOR MEASUREMENT.

- I. Name.
- Weight (estimated).
- 3. Right or left shoulder.
- 4. Circumference of the arm.
- 5. " axilla to acromion.
- of chest under axilla.

 Price to Patients......\$6 oo to 9 oo

Pages 736 to 768, are prices to Patients. Special prices to Physicians, and the Trade.



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PROF. GUNN'S APPARATUS

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SPINAL CURVATURE,
ANCHYLOSIS OF KNEE,
ANCHYLOSIS OF ELBOW,
HIP-JOINT DISEASE,
WRY NECK,
CLUB FOOT, ETC.

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PROF. OWEN'S

AND

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FOR

SPINAL CURVATURE,

BOW LEGS, KNOCK KNEES,

ANCHYLOSIS OF KNEE,

ANCHYLOSIS OF ELBOW,

HIP-JOINT DISEASE,

CLUB FEET, WRY NECK.

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PROF. ISHAM'S APPARATUS,
PROF. BEEBE'S APPARATUS,
PROF. JAY'S APPARATUS.

We make a specialty of Deformity Apparatus, Elastic Stockings and Supporters. We give our personal attention to the correct and careful fitting of Deformity Apparatus. Surgeons from a distance will have their orders promptly attended to by sending us careful measurements, and as full particulars as possible.

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ARTIFICIAL LIMBS.

Send for Our Late Book on Artificial Limbs and Appliances.

We wish to call the attention of the medical profession, and all those who are interested in the latest and most useful improvements in mechanical surgery, to the merits of our limbs.

After having made and sold these limbs with unvarying success during a period of fourteen years, and upon their adoption by leading surgeons, and the favorable testimonials of hundreds who are wearing them, we feel justified in making the declaration, that for all the purposes for which an artificial leg is intended, they are without a rival.

Practical experience and the scientific adoption of mechanical principles to answer anatomical purposes, have resulted in the production of these, the most durable and successful imitations of the natural leg ever yet attained.

Heretofore inventors, in their attempts to imitate nature, have lost sight of the fact that an artificial limb is simply a machine, and that its merits are based entirely upon the superiority of its internal mechanism. In external appearance we claim nothing original, while internally they are unlike any other limb made. In contour and symmetry of motion they as closely resemble nature as is possible, and retain the elements of comfort (to the wearer) and durability.

The materials used in their construction are English willow, steel, rawhide and car spring rubber. We use but one cord, which is made of silk, covered with buckskin, making it very strong and durable. This cord is removable from both ends.

Our limb is not complicated, consequently is not liable to get out of order. It can easily be taken apart for the purpose of cleaning and greasing joints. Our knee-joints are of a recent patent of our own, and will outwear any four sets of joints in use by any other manufacturers. They will not work loose and rattle like other leg joints in general use, and are shaped to fit limbs so that they do not show through pants, when in a sitting position. The spring that regulates the flexing of foot is made of spiral steel, carefully tempered and so arranged that it can be easily removed and a new spring substituted in case of breakage without the necessity of sending limb to our factory. This spring does not become hard like rubber, but will always remain flexible. We seldom hear of one breaking, and no charge is made for them when wanted to replace a broken one.

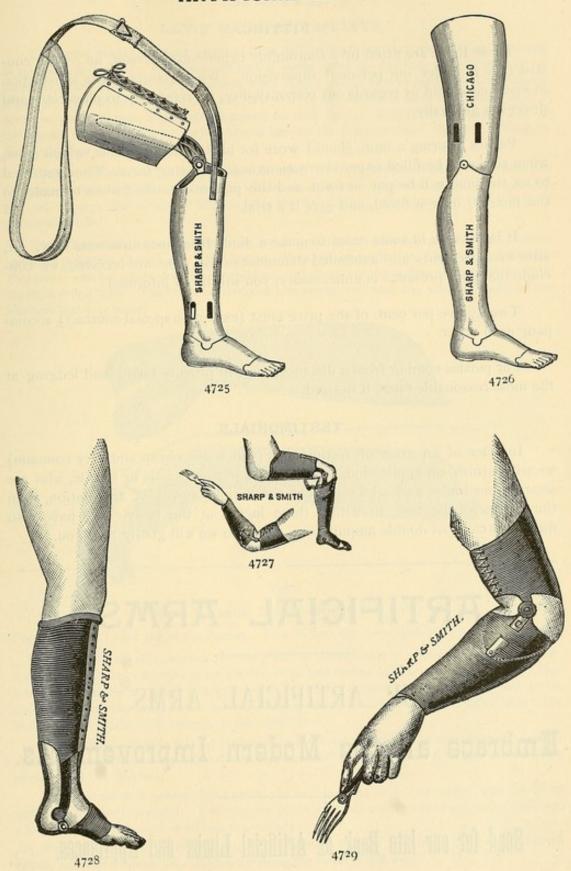
The toe spring is so arranged that the motion can be regulated to suit by simply turning a nut inside of foot.

Our laces are made of substantial leather, covered inside and out with buckskin, stitched with silk, and fastened with patent hooks.

The weight of these limbs is from 21/2 to 41/2 pounds, according to the weight of the patient.

Our artificial foot is fully explained in the cut, and is the most complete apparatus ever applied to what is known as "Chopart's Operation." We also construct an apparatus for the extension of shortened limbs.

ARTIFICIAL LIMBS.



ARTIFICIAL LIMBS.

FITTING.

These limbs are fitted by a thoroughly experienced person, and their construction is under our personal supervision. We guarantee entire satisfaction in every case, and as regards our responsibility, we refer you to physicians and druggists generally.

Parties desiring a limb, should write for blank measurements, which must, when received, be filled as per instructions accompanying them. When returned to us, the limb will be put in form, and the patients notified when to come to the factory, have it fitted, and give it a trial.

It is possible in some cases to make a limb from measurements only. If, after measurements and a detailed statement of the case are received, we conclude that your presence is unnecessary, you will be so informed.

Twenty-five per cent, of the price must (except on special contract) accompany each order.

For parties coming from a distance, we will procure board and lodging at the most reasonable rates, if desired.

TESTIMONIALS.

In place of an array of testimonials (which are cheap and very common) we will furnish, on application, the names of persons, male or female, who are wearing our limbs, and who represent the various forms of amputation, from the flexors of the foot to within three inches of the body. We have also numerous cases of double amputations, to whom we will gladly refer you.

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OUR ARTIFICIAL ARMS

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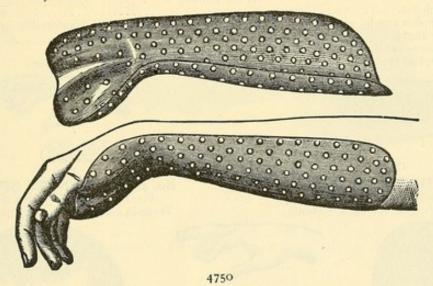
SPLINTS.

LEVIS' METALLIC SPLINTS.

The copper used in the manufacture of these Splints being less than one-eightieth of an inch in thickness, makes them very light and readily conformable by bending so as to suit the peculiarities of any limb, and yet the Splints when applied are as firm as the heaviest wooden appliances. They fit so accurately that but little padding is required; a piece of woven lint or of cotton or woolen flannel, is all that is necessary for their lining. A slight roughness is left on the outside of the Splints by perforations to prevent the bandage from slipping. They are nickel-plated to prevent oxidation.

They are invaluable when the parts are lacerated. As the perforations allow ventilation, and secretions are not confined and liable to be absorbed, as in every other kind of splints, but readily pass off through the numerous orifices, they do not become offensive like those made of porous materials.

These Splints are cooler, and lighter in weight, thinner in material, more correct in shape and more perfect in fit than any other Splints offered to the profession. They are all made in Two SIZES—one for adults, and one for children, and all, except the radius, fit the same on either the right or left limb. The following comprise a complete set, and are ample to apply to any fractures that may occur.



No. 1. Radius Splints-Right and Left.

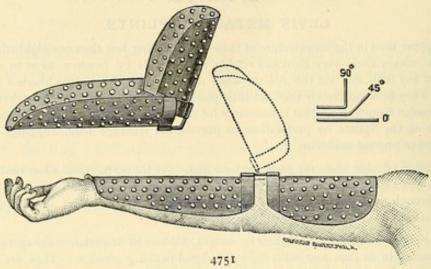
For Fracture of Lower end of the Radius. Four in each set. For each piece.........\$1 00

In the treatment of fracture of the lower end of the radius it is essential that proper allow ance be made for the curvature of the anterior or palmar surface of this part of the bone. This is insured in this Splint, which follows directly the radial curvature; and the fixing of the thenar and hypothenar eminences of the hand in their moulded beds, maintains the splint immovably in its correct position with reference to the radial curve.

To neglect of complete primary reduction of the displacement of the lower fragment, and to inefficient restoration and retention of the normal radial curve, are due the frequent unfortunate sequences of this fracture.

No dorsal splint is needed, but a small pad will in most cases be required over the dorsal surface of the lower fragment. For retention of the Splint an ordinary bandage, two inches and a half to three inches wide, is all that is necessary.

This Splint has the merrit of being applicable to all cases of fracture of the lower end of the radius, and also to many other injuries involving the forearm and wrist.

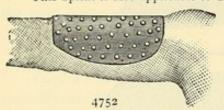


No. 2.—ADJUSTABLE ANGULAR SPLINT.

For all fractures of the elbow joint, and of the arm and forearm, excepting those at the lower end of the radius.

Two in each Set..... This Splint can be applied either anteriorly or posteriorly, and is comfortable and adjustable to any angle.

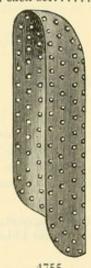
The pieces are detachable, and can be used separately. This Splint is also applicable to diseases, and to resections, of the elbow joint.

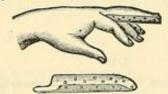


No. 3.—HUMERUS SPLINT. For Fractures of the Humerus. Two in each set each 50 cents.



No. 4.—PHALANGES SPLINTS.
For Fractures of Fingers or Toes. Three in each set.each piece \$0 15

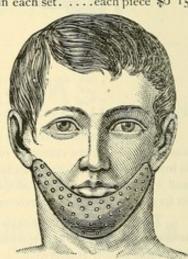




4754 No. 4.-IMPROVED PHA-LANGES SPLINT.

For Fractures of Fingers and Toes Three in each set...per piece \$0 15

We have made a great improvement in these Finger Splints by adding the extension which runs up on the palm of the hand. This tip also makes them adaptable to H A. Wilson's Metacarpal Splints.

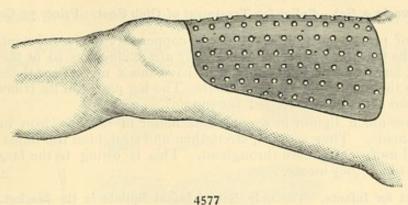


Two in each set...each \$0 75

4755 Two in each set .. each \$0 75 Fig. 4755.—No. 5.—Clavicle Splint.—This Splint forms a cap for the shoulder, and can be applied to fractures of the clavicle and humerus.

Fig. 4756.—No. 6.—Maxilla Splint.—This Splint forms a complete cap or covering for the

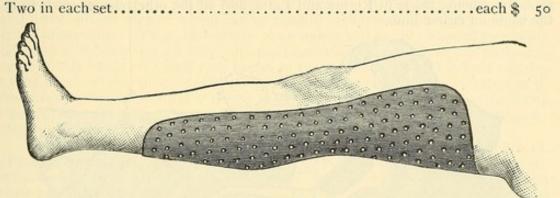
entire chin and lower maxillary bones, and keeps the fractured parts rigidly in the correct position.



457

No. 7. FEMUR SPLINT.

For fractures of femur, ribs and hip-joint.

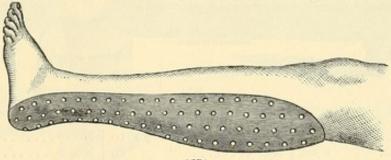


4578

No. 8. PATELLA SPLINT.

Two in each set.....each \$1 oo

This Splint can be applied to all fractures from middle of femur to middle of tibia and fibula, and is particularly well adapted for fractures of the patella and all other fractures occurring near the knee joint, either above or below it.



4579

No. 9. TIBIA AND FIBULA SPLINT.

For all fractures and other injuries of the leg below the knee, and especially adapted for those at or about the ankle joint.

Two in each set.....each \$1 00

The complete set consists of the twenty-one pieces just described, in a neat. compact case. \$15 00 per set.

No. 10.-Two in a Set.-Splint for Treatment of Club Foot. Price, 75 Cents Each.

Made of perforated and nickel-plated copper, in two sizes, for infants from three months to three years of age. They are made so as to fit the same on either limb, and are especially adapted to have shoes made over them, or to be fastened to the inside of ordinary shoes. The leg part can be trimmed off at the top of the shoe, unless needed for support.

They are much lighter in weight, and better in fit than iron braces can possibly be made. They support, strengthen and straighten the limbs by a very gradual and uniform pressure throughout. This is owing to the large surface of the limb which they incase.

Set for Infants. The only Set of Infant Splints in the Market.

This set consists of ELEVEN PIECES, and is only intended for infants of three years of age and under. They are made in the same shapes as the large sets, No. 1 being made in Rights and Lefts, and all the other shapes made to fit the same on either limb.



Prices of the Different Pieces.

No.	1each	\$0 7	5 No.	4each	80 10	No. 7each	\$0 25
No.	2 "	10	o No.	5 "	50	No. 8 "	75
				6 "	50	No. 9 "	75

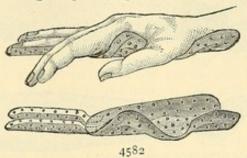
Above set (Fig. 4581) contains eleven pieces, put up in Walnut Case. Price, \$5.00.

This Infant Set will never be included in the regular Adult and Children Set, unless so specified in the order.

The regular set of twenty-one pieces, and this Infant Set of eleven pieces combined, thirty-three pieces in all, put up in one case. Price \$18.00.

NEW HAND SPLINT DEVISED BY H. AUGUSTUS WILSON, M. D., OF PHILADELPHIA.

No. II.—H. A. Wilson's Metacarpal Splint, Four in each Set. Price, 75 Cents for Each Piece. Finger Splints, 15 Cents for each Piece Extra

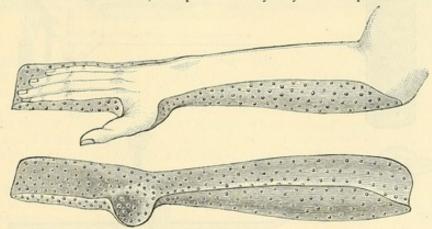


The usefulness of the above Splint is fully illustrated in the above cut. It is made in *Rights and Lefts* for *Adults and Children*, of thin, flexible, perforated and nickel-plated copper, which can be readily moulded to the parts as desired. It is indestructible by use, and can be thoroughly and easily cleansed by simply immersing in hot water—a very important consideration in this age of antiseptic surgery. It has been found very useful in the treatment of all kinds of injuries to the hand, where support and immobility are desired. In the treatment of fractures of the metacarpal bones, it meets every requirement, and at the same time permits of the judicious use of the fingers, thereby avoiding the trouble-some anchylosis that is so apt to follow injuries to the hand.

It is made adaptable for the adjustment of Levis' Metallic Splint, No. 4, (Phalanges) so that one or more of which may be used at a time, as the exigencies of the case require. The injured fingers are given full support in their adjusted position, leaving the sound one free for limited use, so as to avoid anchylosis.

NEW COMBINED FOREARM AND HAND SPLINT.

Made in two forms, as shown in the Figs. 4583 and 4584. These Splints are designed to fill a long-felt want for a Splint that could be universally used for all fractures and injuries to the forearm, hand and fingers. Thus, the bandage can be applied (if necessary) above and below the injury, leaving it open or exposed for treatment. In addition to their "Antiseptic" qualities, our Splints retain the members in their correct and normal position; these are very important and essential features, not possessed by any other Splints in the market.



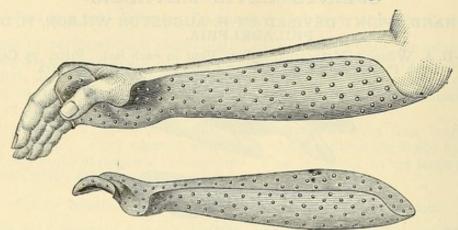


Fig. 4784. No. 13.....each \$1 00

COMBINED FOREARM SPLINT (IMPROVED BOND'S SPLINT.)
RIGHTS and LEFTS. ADULTS and CHILDREN. FOUR IN EACH SET.

For all Fractures and Injuries of the Forearm and Hand.

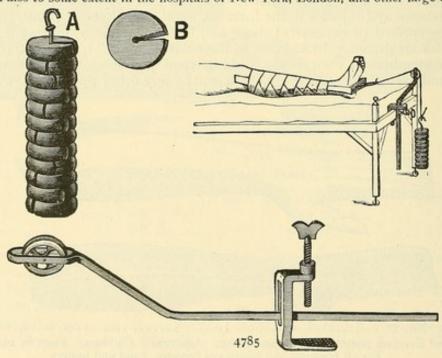
LEVIS' EXTENSION APPARATUS.

Designed by R. J. Levis, M. D., Surgeon to the Pennsylvania Hospital, and to the Jefferson College Hospital.

The application of the principle of weight-extension to the treatment of fractures, and in diseases and deformities of joints, is of such importance as to require more effectual and convenient apparatus than is ordinarily used. It is desirable that the mechanical appliances for this object should be convenient and inexpensive, portable, not cumbersome, and readily and securely applicable to various forms of bedsteads and couches. It is also important that the amount of tension by weight can be estimated, and varied to the requirements of the case.

of tension by weight can be estimated, and varied to the requirements of the case.

All these requisites are secured in an accurate and mechanical manner by the Apparatus devised by Dr. R. J. Levis, which has been used for a number of years in the Pennsylvania Hospital, and also to some extent in the hospitals of New York, London, and other large cities.



SPLINTS-LEVIS' EXTENSION.

(See Illustration on Opposite Page.)

The rod (A) fits the hole in the center of weight (B) nicely, excepting about an inch from the top, which is flattened in order to admit the weights being put on and taken off at that point, and at that point only.

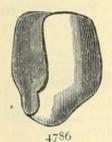
The wood cuts render a full description of the apparatus unnecessary. An adjustable clamp holds in position the upright rod which supports the pulley. The rod and pulley can be adjusted at any required elevation. The clamp will grasp either a wide or a narrow bar at the foot of the bedstead, or it can be attached to the back of a chair, to the end of a table, or to any object of sufficient security and steadiness. It can be reversed so as to grasp an under edge when such hold is more convenient.

The above apparatus is put up complete, with foot block and cord attached, ready for instant use, in a neat and substantial case. Price \$5.00.

AHL'S ADAPTABLE POROUS SPLINTS.

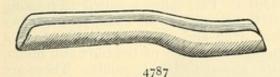
Detailed Description of the Sets-What Constitutes a Complete Set.

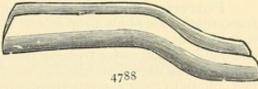
The complete set of Adaptable Porous Splints contains twenty-five (25) pieces for adults, and twenty-five (25) pieces for children, making in all fifty (50) pieces. They weigh altogether not quite five pounds, and are neatly packed in nests in a light wooden box with a firm fastening. This allows them to be conveniently transported in the physician's carriage.



Lower Maxillary Splint (Fig. 4786.) This splint embraces the entire chin, and forms a complete support to the fractured part while at the same time it allows, by its flexibility, sufficient motion to open the mouth slightly, to take food and drink. They are more comfortable than the gutta-percha splint. Retain it by Barton's bandage.

Adults' size, 75c. Children's size, 5oc.

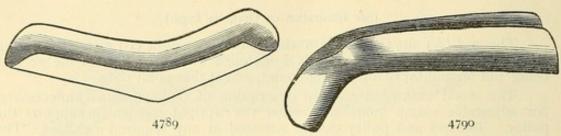




Inferior Forearm Splint for the Ulna (Fig. 4787) and Superior Forearm Splint for the Radius (Fig. 4788.) These two splints are intended for all fractures of the forearm, and also for sprains and dislocations at the wrist joint complicated or not with fracture. Very often actual fractures of the head of the radius or ulna are diagnosed as sprains, and result in semi-anchylosis. These cases, even when of several months' duration, can be treated with complete success with these splints. They are also admirably adapted to treating Barton's fracture, fulfilling every indication as well as Bond's Splint, requiring no pads or compresses, and being less likely to be followed by stiffness of the joint. They may be used either in combination or alone. As the radius and ulna are more liable to fracture than any other bones, ready-made splints are very convenient.

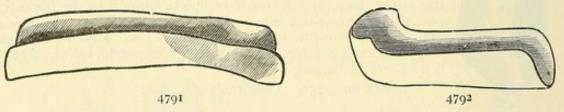
Adults' size, each, 75c. Children's size, each, 5oc.

SPLINTS-AHL'S FELT.



Elbow Splint (Fig. 4789.) This is for fractures and dislocations of the radius, ulna and humerus, at or near the elbow joint. In combination with the Inferior and Superior forearm splints, it is adapted to all fractures of the ulna and radius at the middle or upper third, or compound comminuted fractures of the same bones. Where both radius and ulna are fractured, bring the parts into contact, then apply splints, Figs. 4787, 4788 and 4789, and bandage over all from the hand to the shoulder. If the fracture is comminuted, cut a part or parts out of the splints, corresponding to the points of comminution, and bandage around them. The wounds can easily be dressed without disturbing the splints or bandages. As the swelling is reduced, tighten the bandages as the splints accommodate themselves to the reduction. The Elbow Splint is at an obtuse angle, to prevent the lapping of soft parts, and as being most natural to sling. Adults' size, 75c. Children's size, 50c.

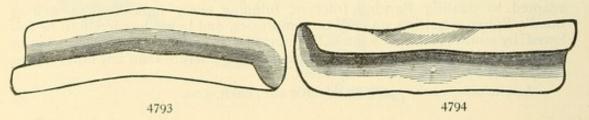
Anterior Tibia Splint (Fig. 4790). This splint is intended for fractures of the tibia proper, and especially for fractures, either simple or compound, in the vicinity of the ankle-joint. It reaches from the knee-joint to the instep, and embraces the ankle-joint perfectly. Fractures of the malleoli will be readily treated by combination of this and the following pieces. There are two splints of this kind to each set.



Posterior Fibula Splint (Fig. 4791.) This splint is suited to treating fractures of the fibula proper, and also in the vicinity of the ankle joints, either simple, compound or comminuted. Figs. 4790 and 4791 are combined for a complete apparatus for treating bad compound fractures of the tibia and fibula, either of the upper, middle or lower third, and at the ankle joints. There are two splints to each set, one for the left and one for the right limb.

Adults' size, \$1.00. Children's size, 75c.

Shoulder Splint (Fig. 4792.) Any fracture of the humerus can be successfully treated by a combination of the shoulder and elbow splints. The shoulder splint fits over the exterior face of the shoulder, and it is to be used with the short, slightly curved piece to be applied to the opposite surface. Adults' size, 75c. Children's size, 5oc.



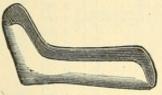
SPLINTS-AHL'S FELT.-Continued.

Anterior Knee-Joint Splint (Fig. 4793).—This splint is adapted to treat fractures of the tibia, fibula and femur near the joint, and also in connection with the anterior and posterior tibia and fibula splints, to treat all fractures of those bones. There are two splints to each set, one for the right

and one for the left knee-joint.

Posterior Knee-Joint Splint (Fig. 4794).—This splint, in connection with the anterior knee-joint splint, treats fractures of the tibia, fibula and femur near the knee-joint, and also the upper third of the fibula and tibia, and the lower third of the femur; and also in connection with the anterior and posterior tibia splints, treats all fractures of those bones. There are two splints to each set, one for the right, and one for the left limb. These splints can be used for the tibia and fibula also, when fractured about the middle of the shaft. Figs. 4793 and 4794 are used also for fracture of the patella, and are admirably adapted to keep it in position.

Adults' size, Figs. 4793 and 4794, \$1.00. Children's sizes, 75c.





Club-Foot Splint for Children (Fig. 4795).—This splint is intended for treating the club-foot of children, after operation, or without operation. which it does very successfully. There are two club-foot splints for each set.

If the application of these splints be commenced soon after birth, where this deformity is present, and so adapted (by the foot being bent sidewise at an angle to the leg portion) that they exert a constant yet moderate pressure toward the normal line of the limb, the deformity may, in some instances, be remedied without an operation.

Fig. 4795 Splint, 75c. Mention age of child.

Fig. 4796 Splint, adult size, 75c. Children's size, 5oc. Femoral Splints (Fig. 4796).—These splints are intended to treat fracure of the lower third and middle of the femur, and upper third, in combination with anterior and posterior knee-joint splints, as represented in Figs. 4793 and 4794. They encase the fractured limb perfectly.

Price of a complete set, embracing fifty pieces, put up in a neat box, with handle on top.....

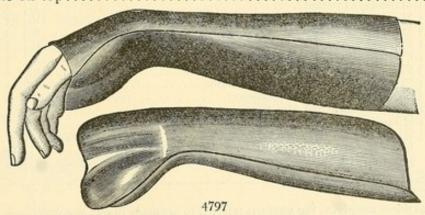


Fig. 4797. Palmar and Dorsal Splint (in position). Obviates the necessity of compresses or pads, and insures extension and position.

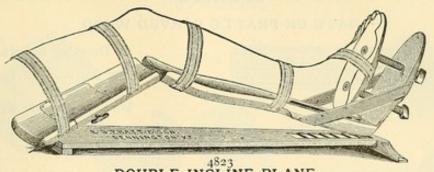
Adults' and children's size, each piece, 75c.

SPLINTS-AHL'S FELT.

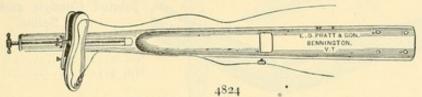
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4820 37— Hinged Pelvis and Splint (Male)	4819	36— Femur Perineal and Hip Support. R	3 00	
4821 38— Johnstone's Laced Splint for Knee (any size)	4820	37— Hinged Pelvis and Splint (Male)	7 50	
4022 39— Johnstone's Pett Jacket for Spinar Curvature	4821	38— Johnstone's Laced Splint for Knee (any size)	IO 00	
	4022	39— Johnstone's Pett Jacket for Spinar Curvature	25 00	

When no prices are given, the numbers referred to are made in one size only. Nos. 34, 35, 37, 38 and 39, are made to order only, and in any size desired. Orders for No. 39 MUST be accompanied by plaster cast of subject.

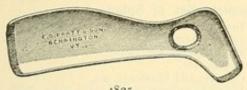
SPLINTS-DAY'S OR PRATT'S CARVED WOOD.



DOUBLE INCLINE PLANE.										
Small	00									
Medium	75									
Large 4	50									



EXTENSION BAR. Small.....



4825

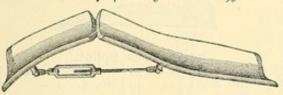
RIGHT ANKLE SPLINT.

No. 0. \$0 60 | No. 2 \$0 80 No. 1 0 70 | No. 3 0 95



LEFT ANKLE SPLINT.

Sizes and prices of Left Ankle Splints are the same as those of Right Ankle.

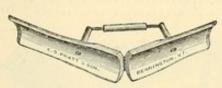


Jointed Patella Splint.—With Screw.

No. 1......\$1 50 | No. 3......\$1 80 No. 1.....\$0 60 | No. 3......\$0 80 No. 2...... 1 70 | No. 4....... 2 00 No. 2...... 0 70 | No. 4....... 0 95

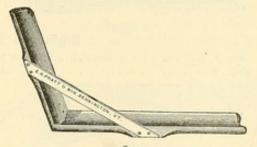


Patella Splint.



4829 Joint Arm Splint.-With Screw.

No. 1. \$1 50 No. 2. 1 70 No. 3. 1 85

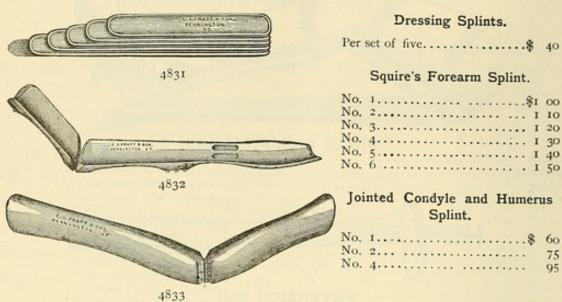


Condyle and Humerus Splint.

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No.	3.			E												0	C	15

SPLINTS.

DAY'S OR PRATT'S CARVED WOOD.



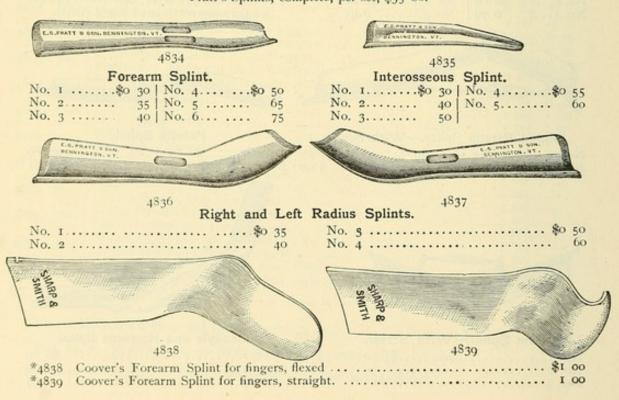
The Squire's Jointed Forearm Splint, the Jointed Condyle and Humerus Splint, and the Jointed Patella Splint, are not in the regular set of Splints.

The following comprise the Complete Set of Splints:

- I Extension Bar, small.
- " large.
- Double Incline Plane, small.
- " medium.
- large. 8 Radius or Crooked Hands, set.
- 6 Forearm or Straight Hands, set.

- 5 Interosseous, set.
- 3 Jointed Arms, set.
- 8 Ankles (new), set.
- 4 Patella, set.
- 3 Condyle and Humerus, set.
- 5 Dressing Splints.

Pratt's Splints, complete, per set, \$35 oo.



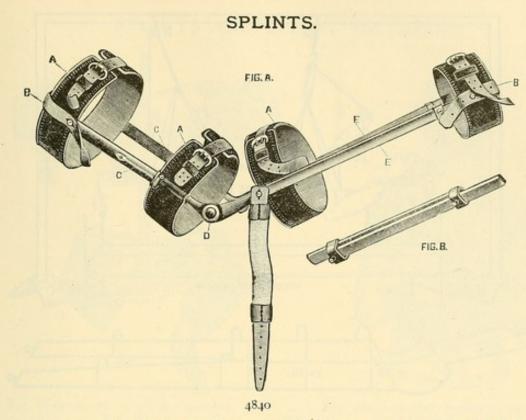
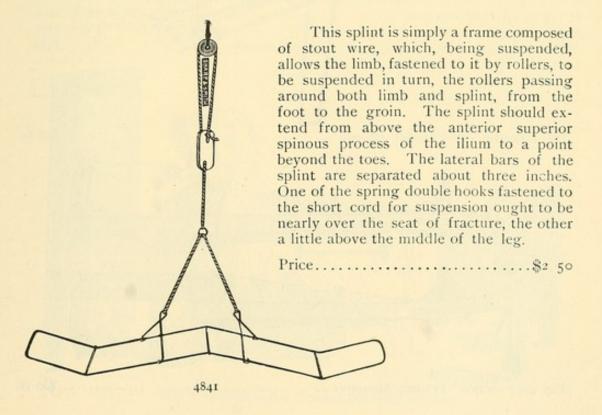


Fig. 4840-Bryant's Splint for Extension of Elbow at any angle, price \$18 75

Fig. 4841.—Dr. Nathan R. Smith's Anterior Splint and Suspending Apparatus for Fractures of the Leg and Thigh.



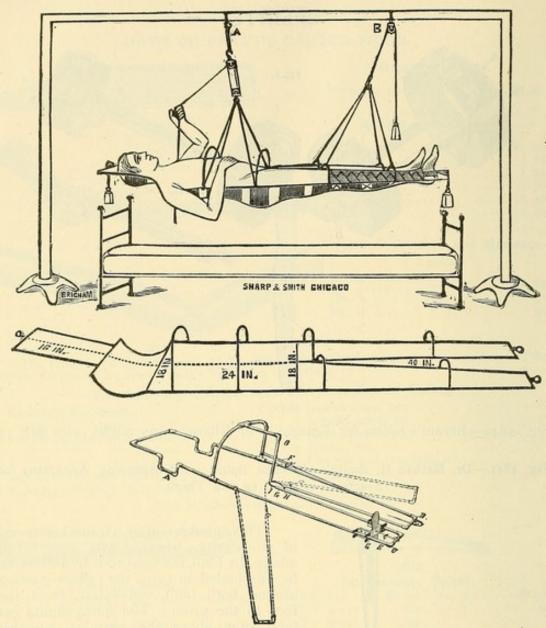


Fig. 4842—Dr. Verity's Splint complete... \$12 00

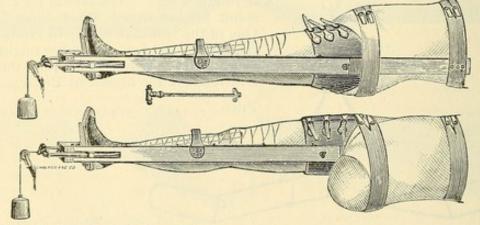


Fig. 4843—Staples' Fracture Apparatus \$40 00

SPLINTS AND SPLINT MATERIAL.

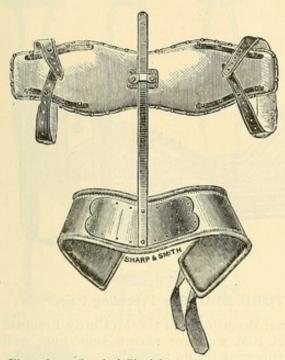




Fig. 4844—Staples' Clavicle Apparatus. \$15.00.

Fig. 4844—Staples' Apparatus for Fractured Clavicle, Applied.

4845	Plain Fracture Boxeseach,	\$3	00
4846	Gutta Percha Splint Materialper lb.,	2	00
4847	Binders' Board per sheet,		10
4848	Koehler's Adaptable Splint Material "	1	50
4849	Russian Felt Splint Materialper sheet, \$1 50 to	4	00
4850	Gilbert's Patent Set Splints	I	00
4851	" " Flannel Lined	I	25

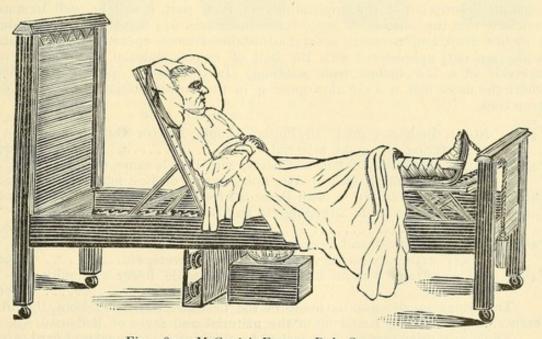


Fig. 4875-McCurdy's Fracture Bed-See next page.

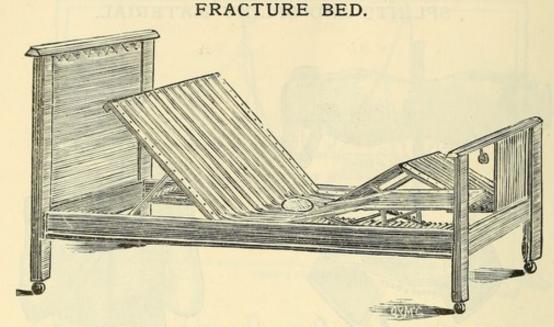


Fig. 4875.-McCURDY'S FRACTURE BED-See Preceding Page.

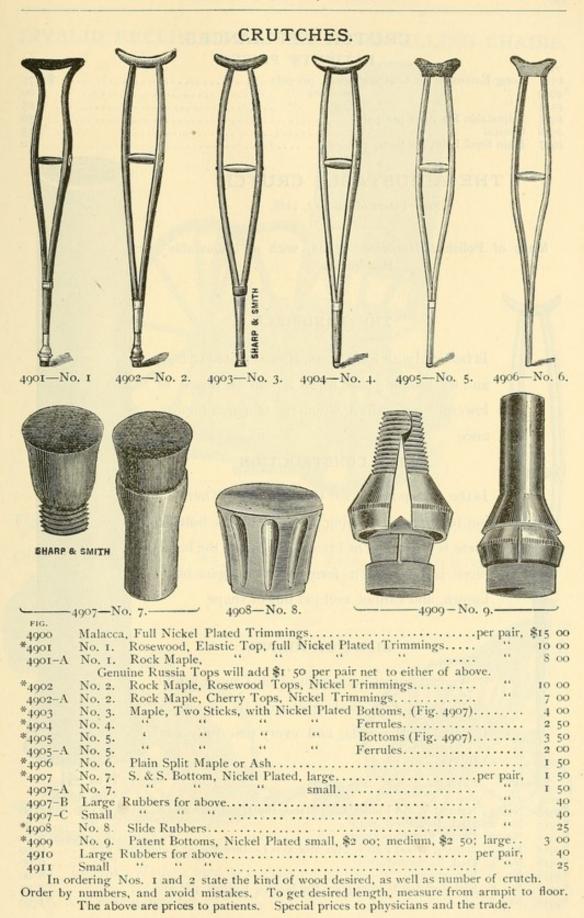
In presenting this page giving a brief description of the McCurdy Fracture Bed to the medical profession, we feel that we have shown something well worthy the attention of all interested surgeons trying to contrive a method by which fractures, amputations, injuries of the spine, pelvis, large joints and severe wounds, may be treated scientifically without shifting or moving the patient about when undesirable, besides preserving the invalid in any decubitus required, thereby aiding instead of retarding nature in her process of repair.

Every medical man who has had any experience in surgery, knows that the difficulty in the successful treatment of grave injuries arises from being unable, at will, to place the patient in a desirable position. This dreaded hindrance can be overcome in every respect by the features found in our bed, which the accompanying illustration will partly explain. Before entering into a separate description of the applicability of each part, it will be well to state concisely that the outside or basic frame measures $6\frac{1}{2}$ feet long, 3 feet wide, 4 inches deep, and contains several adjustable frames operated with ratchet work (see cut) upholstered with the best of canvas material, strengthened at intervals of a few inches with webbing. In the center opposite the point where the nates rest is a circular opening in the canvas, subject to the use of drop trap.

FIG.		
*4875	No. 1. Bedstead made of Poplar Frame, Ash or Oak, uphol-	
	stering of good material\$30	00
*4875	No. 2. Bedstead, Walnut or Cherry, with Panels same, or Ash or	
	Chestnut, Frame, Oak or Ash, upholstering of best material 35	00
*4875	No. 3. Same as No. 2, with Bedstead highly ornamental 45	00
*4875	No. 4. Frame made adjustable to any Bedstead, of best material	
	throughout 20	00
*4875	No. 5. Bedstead and Frame same as No. 2, made without the	
	lower extremity inclines, for Paralytics, Fevers, etc 32	00
*4875	No. 6. Frame without Bedstead or adjustable lower extremity	
	inclines	00
Th	e frame in all cases is made of the best material throughout, the c	
foronco	in price being based upon the meterial and stule of Padetand	

ference in price being based upon the material and style of Bedstead.

The above prices are for Bed packed for shipping, and placed on board cars.



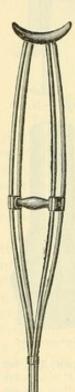
CRUTCH APPLIANCES. PATIENTS' PRICES.

PIG						
4912	Long Extension for Cruto	hes, small, per	pair.	 	 	 \$I 75
*4913		' medium				2 00
4914	" " "	' large	"	 	 	 2 25
4915	Adjustable Ice Spur per	pair		 	 	 50
4916	Conical " "					
4017	Plain Steel Point Ice Spu-	r. per pair.		 	 	 10

THE ADJUSTABLE CRUTCH.

Pluche Patent of June 12, 1888.

Made of Polished Hardwood Rods, with an Adjustable Handpiece.



THE HANDPIECE

Is fastened with Fine Brass, Nickel-plated Clasps, and by losening one screw it can be raised or lowered, as desired, which is of much importance.

THE CONSTRUCTION

Is the best possible for this purpose. There being four pieces coming together at the bottom, there is no danger of breakage. When the hand-piece is fastened, it forms the strongest brace known, and cannot well get out of shape.

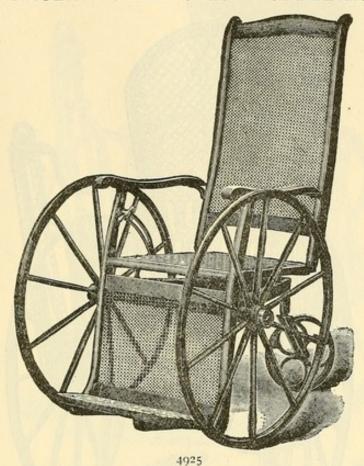
LIGHT OR HEAVY.

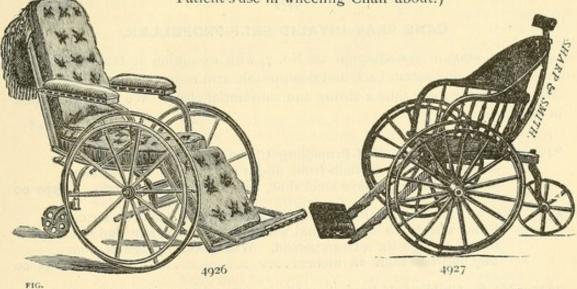
We can adjust the weight of the Crutch for the smallest child or the largest man by increasing the size of the rods, and every pair fully warranted.

No. 41 Fig. 4913.

PIG.											5. 4913.		
			Natural Wood			Mahoga	any Har	ndpiece a	nd Sadd	le, per	pair\$	55	00
*4918	No.	2.	Dark Rosewo	od, with		"		"	"		"	5	00
			Ebony Finish,										
±4918	No.	1.	Natural Wood	Finish	with	Morocco	Leath	er Spring	Saddle,	per pa	ir	6	CO
*4918	No. 5	5.	Dark Rosewoo	od with		4.				***		6	00
			Ebony with			"	"		**	**		6	00
*4918	No. 7	7.	Nickel-plated	Bottom-	piece	for hole	ling Ru	bber, per	pair			1	00
*4918	No. 8	3.	"				**	and	Spur, 1	per pair	r	I	50

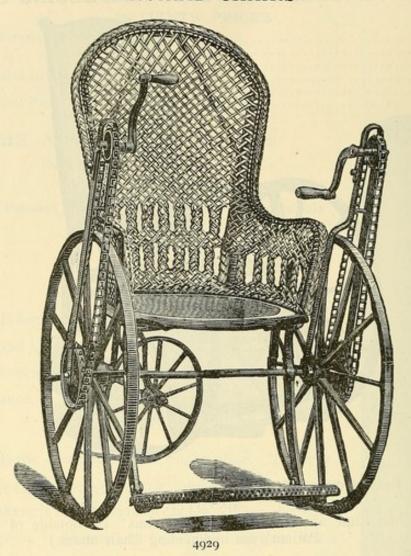
INVALID RECLINING AND SELF-PROPELLING CHAIRS.





	Invalid's Whee										
4927	" Chair	, No. 3		 	 	 	 	 		 . 25	00
4928	" Chair	for Children	n	 	 	 	 	 		 . 12	00

INVALID CHAIRS.

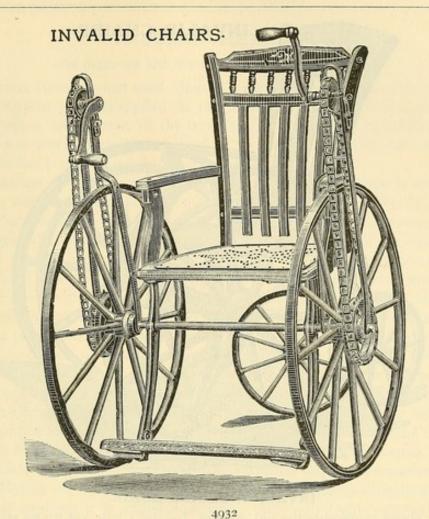


CANE SEAT INVALID SELF-PROPELLER.

Is the same in construction as No. 7, with exception of seat, which is of cane with a roomy rattan back and comfortable arm rests, thus making it a very cool and at the same time a strong and substantial chair. We make this chair in two sizes.

FIG.

- *4929 No. 4. Full size Self-Propelling Chair, size and construction same as No. 5; 28-inch front and 14-inch hind wheels, made of steel spokes, hollow steel rims, and round rubber tires....\$50 00
- No. 6. Child's Self-Propelling Chair, general appearance same as above cut, wheels same as No. 8. Axles and seat in same proportion. Will pass through a doorway not less than 26 inches. 30 00

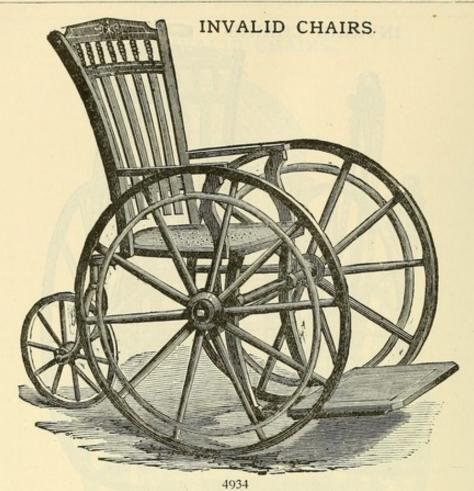


SELF-PROPELLING INVALID CHAIR.
Patented June 29, 1880.

This chair will prove a most valuable companion to invalids, not only on the street, but far more so in the house. The foot rest can be swung up so as to facilitate easy access to the seat. The motion of the cranks being transmitted by its sprocket wheels of but three inches in diameter to those on the front wheels of six inches in diameter, the working power is doubled, so that weak persons can propel it with ease. The machine will work comparatively well on a rough or sandy road, when ascending a moderate inclination; its speed is that of an ordinary walk.

*4932 No. 7. Full size Self-Propelling Invalid Chair. Also constructed in the manner as represented in above cut. The seat is similar to a roomy office chair. The front wheels are 28 inches in diameter, hind wheels 14 inches, and are made of the very best material. All connections are of malleable iron, the axles of steel, sufficiently strong enough to carry a weight of 500 lbs. Will pass through a 28-inch doorway......\$25 00

No. 8. Child's Self-Propelling Invalid Chair, has 24-inch front and 12-inch hind wheel; the seat frame measures 16x15, substantially made of oak, with perforated veneer seat. The back is 20 inches high, and has comfortable arm rests. The connections are of malleable iron, the axles of steel, and wheels have welded oval tires. Will pass through a 26-inch doorway.....\$21 00



INVALID ROLLING CHAIR.

The above represents the old style of Invalid Chair, set up on strong, substantial wheels, propelled by means of an outside rim to save hands from contact with dirt; the occupant can thereby propel himself easily from place to place at pleasure. The wheels are made of the very best material, and have heavy welded tires. The axles of steel, connections of malleable iron, well braced and bolted together.

*Fig. 4934 No. 9. Full size Invalid Rolling Chair, constructed in the manner as represented in above cut; the seat is similar to a roomy office chair. Has 28-inch front wheels and 14-inch hind wheel, made of the very best material. All connections are of malleable iron, the axles of steel, quite strong enough to carry a weight of 500 lbs. Will pass through a 28-inch doorway. Price.....\$20 00

Fig. 4935 No. 10. Child's Rolling Chair, designed for children up to 14 years of age; has 24-inch front and 12-inch hind wheels. Seat frame measures 16x15, substantially made of oak, with perforated veneer seat; back is 20 inches high, and is supplied with comfortable arm-rests. The connections are of malleable iron, the axles of steel, and wheels have welded

oval tires. Will pass through a 26-inch doorway. Price, \$16 oo N. B.—We make Nos. 4, 5, 6, 7, 8, 9, 10 with three styles of wheels—Wooden Wheels, Steel Suspension Wheels, and Rubber Tire Suspension Wheels. Unless specially mentioned by purchaser that Wooden Wheels are preferred, will send Steel Suspension Wheels, the price being the same. Rubber Tire Suspension Wheels to fit above style of chair, \$15 extra.

TRUSSES-HERNIA.

(See pages 802 and 803 for Net Prices of Trusses.)

The term Hernia, when used simply, is considered equivalent to the English word Rupture, and as applied to the abdomen only. Rupture, according to the common acceptation of the term, is a disease consisting in the passage of any part or parts naturally contained in the abdomen, out of that cavity.

Hernia has been divided into true and false, or spurious.

The former are those protrusions of the abdominal contents in which the parts carry before them a portion of the serous membrane lining the cavity. The latter are the cases where the parts pass into a neighboring serous cavity, as in Congenital Diaphragmatic Rupture. Various affections of the testes, their coats and vessels, have been denominated false in contradistinction to those above defined as True Hernia. The former diseases are attended with swellings in the groin and scrotum, the seat of the most frequent kind of Hernia.

Hernial difficulties have also been divided into external and internal. The former is a protrusion of the abdominal contents with an obvious tumor. The latter are instances of strangulation, caused by certain internal changes not indicated by external swellings, as when the bowels pass through an opening in the diaphragm, or into a preternatural cavity formed in either of the peritoneal duplicatures, or when they are confined by preternatural cords or adhesions. Since the protruded parts may become strangulated in these various cases, as in common Ruptures, they have been regarded as a species of Hernia. When the protruded parts remain in the opening without showing themselves externally, the Hernia is called incomplete. If they come through entirely, and form an external swelling, it is called complete. Although visible external tumors exist in most instances it is not a universal symptom. Inguinal, Femoral or Umbilical Ruptures may be so small, and so deeply seated, as not to be recognizable externally, especially in fat persons.

Fig. 4950 represents a patent truss that we were one of the first to adopt. It is adjustable right to left, and to any desired angle. It is made in three styles, consisting of the French, hard (oval) and soft (oval) shaped pads, and combines all of the advantages of the "French," "Chase" and "Imperial" Trusses.

We have very satisfactory results in the application of these trusses, and we recommend them highly to parties who cannot come to us to be fitted.

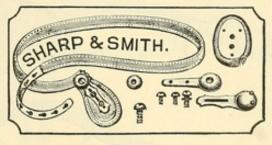


Fig. 4950

We pay personal attention to the careful fitting of Trusses.

TRUSSES.

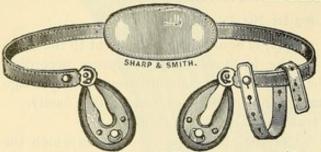


Fig. 4954—Double Imperial Truss......\$6 00

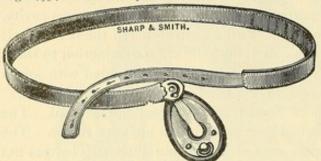


Fig. 4953-Ball and Socket Lock Pad \$5 00

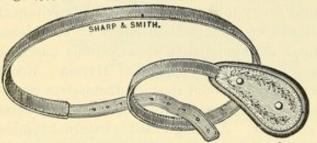


Fig. 4955-Single French Truss ... \$3 00

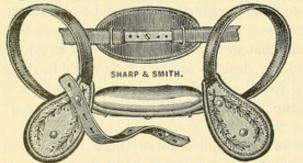


Fig. 4956-Best Double French Truss . \$5 00



Fig. 4957—Child's or Youth's Single Truss, Fine French. \$1 50 to 2 50.

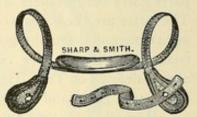
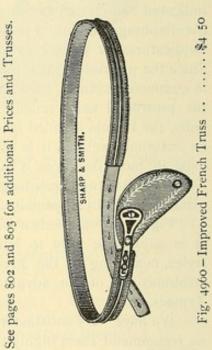


Fig. 4958—Child's or Youth's Double Truss Fine French. \$3 50.



TRUSSES.

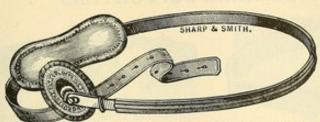


Fig. 4961-Self-Adjusting Truss, Single.....\$4 00



Fig. 4969—Child's Truss, Single, Ebony Pad... \$1 50

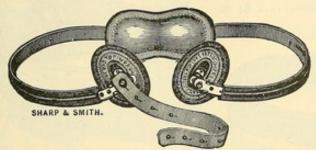


Fig. 4962-Self-Adjusting Truss, Double....\$6 00

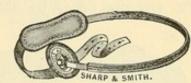


Fig. 4963—Infant's Self-Adjusting..... \$2 50

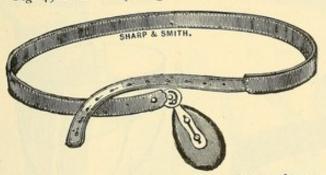


Fig. 4967—Chase's Extension Cedar Pad....\$3 50



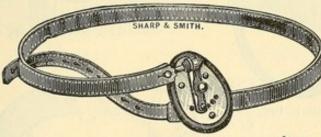


Fig. 4972—Ratchet Truss, Single\$5 00

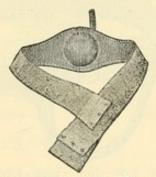


Fig. 5004—Soft Rubber Umbilical Child's Truss,
.........\$1 50 to 2 00

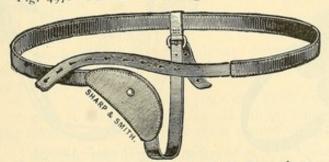
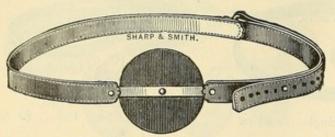


Fig. 4974-German Truss, with Under Strap, \$4 00

See pages 802-803 for additional prices and trusses.

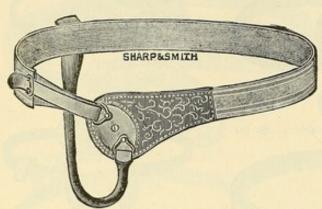
TRUSSES AND ABDOMINAL SUPPORTERS



SHARP & SMITE.

Fig. 4999—Child's Bow Umbilical Truss....\$2 00 to 2 50

Fig. 4998—Bow (spring) Umbilical Truss..... \$4 00



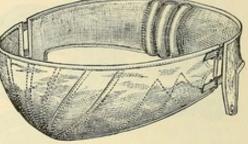
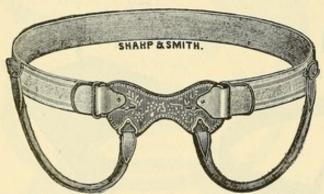


Fig. 5010—Gray & Foster's Abdominal Supporters, \$2 50

Fig. 4975-New York Elastic, Enamel Pad Truss, \$4 00



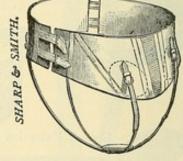
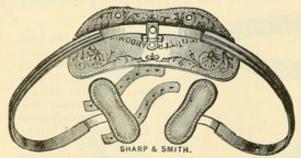


Fig. 5018--Noeggerath's Abdominal Supporter.... \$5 00



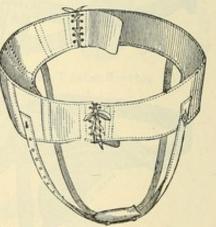


Fig. 5019—Thomas' Abdominal Supporter...... \$6 ∞

Fig. 5017—Improved Spring Supporter, \$5 00 and 6 00

See pages 802 and 803 for additional Prices and Trusses.

ABDOMINAL SUPPORTERS.

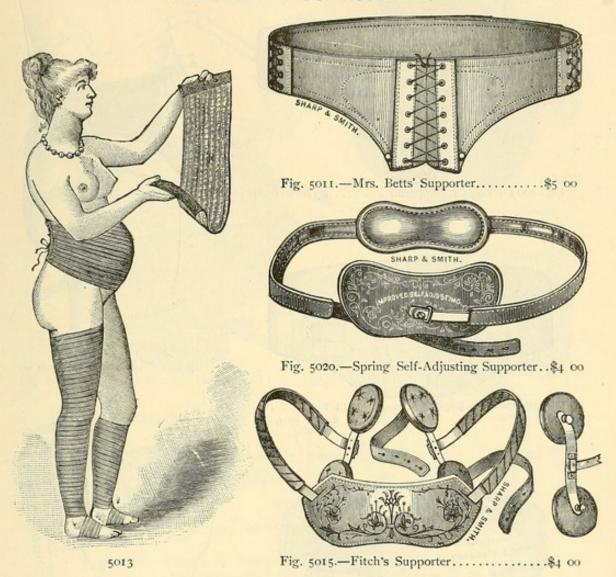


Fig. 5013.—THE EMPIRE ABDOMINAL SUPPORTER

Is Superior to all others for the following Reasons:

1st. It adapts itself to every movement of the body, giving strong and even support.

2d. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3d. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the back-bone, relieving the sinews of their overwork.

4th. Its easy appliance (lace and draw on over the head or feet).

5th. It is cheap, durable. It can be washed when soiled, proper care being taken to cleanse in lukewarm water, and dry in the shade.

In ordering, give the measure of the abdomen. The Supporter should be from four to ten inches larger, according to the degree of support required.

See page 803 for additional Prices and Supporters.

ABDOMINAL SUPPORTERS.

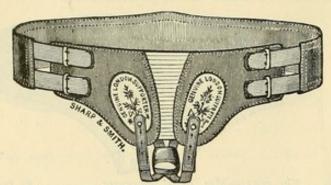


Fig. 5009.—London Supporter.... \$3 00 to 6 00

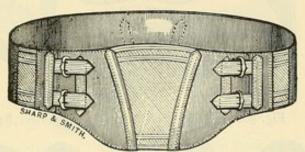


Fig. 5007.—Fine French Supporter, Silk Front. \$5 00 to 6 00

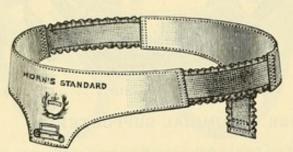


Fig. 5021.—Doily Belt for Menstrual Period .. \$0 75



Fig. 5022.—SanitaryPads for Menstrual Period, per doz\$1 oo

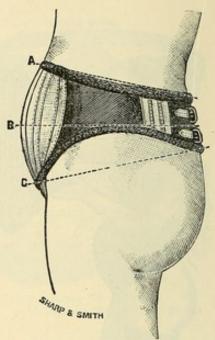
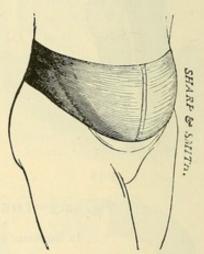


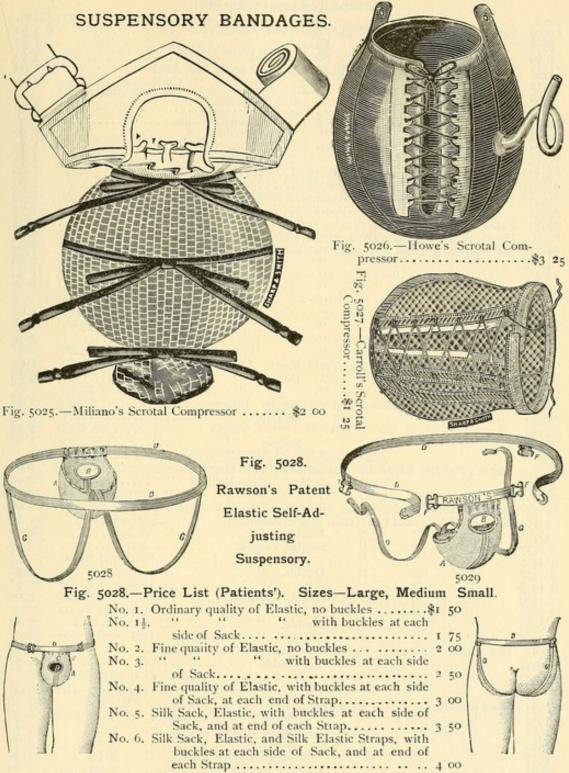
Fig. 5007.—Silk Front Supporter—Applied.\$5 oo to 6 oo



Directions for ordering and measuring Abdominal Supporters, see page 274.

We keep on hand, and make to order, other styles of Abdominal Supporters.

See page 803 for additional Prices and Supporters.



Explanation of the Cuts.—Fig. 1.—a, Sack of silk, linen or cotton net, which will not interrupt the action of the respiratory organs of the skin; b, An opening with an elastic ring, or band c, which keeps the material of the sack closed around the penis and exterior portions of the testicles; d, An elastic band which encircles the body and passes around the hips downward toward the penis, is made either with or without buckles, as in Fig. 2, or permanently, as in Fig. 1; g, Elastic straps, passing over the buttocks and attached to sack, a, beneath, which keeps the sack, a, in position, so as not to pinch the testes; and in whatever position the person may put himself, the sack will remain in place—the straps only yielding, and accommodating themselves to the movements. See page 803 for additional Prices and Bandages.

802 NET PRICES OF TRUSSES, SUPPORTERS, Etc.

(Illustrated on pages 796 to 801.) PHYSICIANS. *4950 " Enamel "
" Soft Oval Pad "
" Double (any of above style) Pad, Adults.
" Single " " Children's...
" Patient's Price for 4950 4950 5 00 4951 4952 4952 *4953 Imperial Adjustable (Ball and Socket) Truss, Single, Adults..... 2 00 Imperial Adjustable (Ball and Socket) Truss, Single, Adults

"Double, "

"Double, "

"Single, Infants

"Youth's

"Double, Infants

"Youth's

"Youth's

"Youth's *4954 *4955 I 75 *4956 2 75 *4957 I 00 *4957 *4958 *4958 *4959 *4960 *4961 Self Adjusting Cross Body, Ball and Socket Truss, Single, Adults..... 2 00 *4962 2 50 *4963 I 50 16 16 16 11 1 4964 2 25 4964 4965 4965 4965 1 4966 " (Patients) \$4 00 1 4966 *4967 Chase's Extension Cedar Pad Truss, Single, Adults..... I 50 Chase's Extension Cedar Fad Truss, Single, Rduits

Double, "

Enamel Pad " Single, Infants.

Double, "

Youths. 1 4968 2 00 1 4968 4969 I 25 *4970 2 25 *4970 " Single, " (Patients) \$2 50 4971 I 50 / 407I Foster's Ratchet Adjustable Enamel Pad Truss, Single, Adults..... 2 00 4972 14973 4 00 1 4973 4974 Elastic Band Enamel Pad Truss, Single, Adults,.... I 50 4975 " " Double, " " (Patients) \$3 00

" " Double, " (Patients) \$3 00

" " Single, Infants. (Patients) \$3 00

" " Double, " (Patients) \$3 00

" " Double, " (Patients) \$3 00 *4976 2 00 2 00 1 4977 4977 2 50 4978 4978 4979 2 00 4979 4980 2 50 (4980 " " " (Patients) \$3 50 *4981 Best Common Chamois Pad Truss, Single.... I 00 Double..... 14982 "(Patients) \$3 00 (4982 PATIENTS. PHYSICIANS. Hard Rubber Truss, any style Pad, Single, Adults, \$ 4 00 4983 \$2 50 " Double, " Single, Infants 4984 6 00 4 50 Celluloid Truss, any style Pad, Single, Infants

Double,

Double,

Single, Youths

Double,

Single, Infants 4985 2 50 I 50 2 50 3 00 4986 2 00 4987 2 50 I 50 4988 3 00 2 00 5 00 4989 3 50 8 00 5 00 4990 2 50 I 75 499I " Double, "
" Single, Youths..... 3 50 3 00 4 00 4992 2 50 2 25 4993 3 00 5 00 3 75 4 00 7 50 4997

NET PRICES OF TRUSSES, SUPPORTERS, Etc. 803

(Illustrated on pages 796 to 801.)

UMBILICAL TRUSSES.

	UMBILICAL TRUSSES.	
FIG.		SICIANS.
*4998	Bow (spring) Umbilical Truss, Enamel Pad, Adults\$4 co	\$2 50
*4999	1 outils 3 00	2 00
*4999	Infants 2 00	1 00
5000	Elastic Umbilical Truss, Celluloid Pad, Adults 4 00	3 00
5001	(extra raige) Centrold Fad, Addits 5 00	3 75
5002	Centroid Fad, Fouths 3 00	2 00
5003	Intants 2 50	I 75
*5004	to the state of th	75
*5004		75
5005	Empire Umbilical Truss 1 00	75
		SICIANS.
*5006	All Silk and Rubber Abdominal Supporters Silk, \$7 50 Cotton,	
*5007	Fine French (Silk Front) " "	2 50
5008	(Linen Front)	2 00
(5008	(rations) \$4 00	
*5009	London Abdominal Supporter	1 50
*5010	Gray & Foster's Abdominal Supporter	1 50
*5011	Mrs. Bett's " "	3 50
	Linquist's " "	2 00
1 5012		
*5013	Empire	1 13
5014		2 50
(5014	" (Patients) \$4 00	
*5015	Fitch S	2 50
5016	Frictional	1 85
*5017	Improved Spring	3 75
*5018	Noeggerath s	3 50
*5019	1 nomas	4 00
*5020	Spring Self Adjusting Abdominal Supporter	3 00
*5021	Doily Belt (for Menstrual Period) Abdominal Supporter	50
*5022	Sanitary Pads " " "per doz.	60
	SUSPENSORY BANDAGES.	
*5025	Miliano's Scrotal Compressor	\$ 1 25
*5026	Howe's " "	2 40
*5027	Carroll's " "	I 00
*5028	Rawson's No. 1 Suspensory Bandage	I 10
*5029	" No. 1½ " "	1 30
*5029	" No. 2 " "	1 50
*5029	" No. 3 " "	I 85
*5029	" No. 4 " "	2 25
*5029	" No. 5 " "	2 65
*5029	" No. 6 " "	3 75
5030	Schnoter's Silk " "	I 10
5031	" Linen " "	75
5032	" Cotton " "	60
*5033	Syracuse No. 10 " "	30
*5033	" No. 16 " "	40
*5033	" No. 21 " "	60
*5033	" No 26 " "	75
*5033	" No. 31 " "	95
*5033	" No 36 " "	2 25
5034	Sharp & Smith's Hand Made Silk Suspensory No. 1	75
5035	" No. 2	60
5036	" Cotton " No. 5	38
5037	" Silk, Extra Small Suspensory	60
5038	" Silk, Extra Large Suspensory	I 15
100000	SHOULDER BRACES.	1000000
*5040	Laced Back Shoulder Brace, Ladies.	\$ 1 00
*5041	Steel " " "	I 00
5042	Fancy Laced Back Shoulder Brace, Ladies	2 00
*5043	G. & F. " " (4 sizes)	I 50
*5044	" " Mens	2 00
*5044	" Youths	I 75
*5044	" " Boys	I 50
*5045	London Shoulder Brace, all sizes	75
0.10		13

SHOULDER BRACES.



Fig. 5041.—Steel Back Fig. 5043.—G and F Ladies' Laced Back Shoulder Brace.....\$2 00 Shoulder Braces.....\$1 50

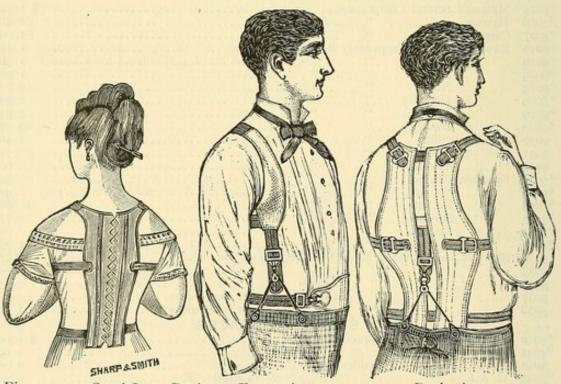


Fig. 5040.—Steel Lace Back

Back view. Front view. Shoulder Brace....\$2 50 Fig. 5044.—G and F Laced Back Brace. Men's \$2 50. Youth's \$2 25. Boys' \$2 00

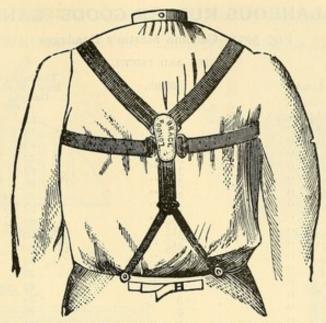


Fig. 5045-London Shoulder Brace, \$1.25.

MISCELLANEOUS RUBBER GOODS.

Pure Gum Bandages, for Varicose Veins and Swellings.

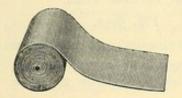


Fig. 5050

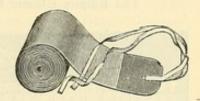


Fig. 5051

Fig. 5051-Physicians' Net Prices.

2	inch	x 6 feet\$0	50	21/2	inch	X 12 f	eet	 \$1	00
2	44	x 9 "	65	2 1/2	66	x 15	44	 I	25
2	"	x 10½ "	75	3	**	x 6	"		75
2	"	X 12 "	85	3	"	x 9	"		90
2	"	X 15 " 1	00	3	"	X 10 1/2	"	 I	00
21/2	2 "	x 6 "	65	3	"	X I 2	44	 I	25
21/2	ź "	x 9 "	75	3	"	X 15	"	 I	50
21/	3 "	x 10½ "	85						

All of our Bandages are of Pure Gum, and the Prices quoted are on the *medium weight* bandage, which is generally used.

Fig. 5050 represents the "plain bandage" without the tapes that are shown in Fig. 5051.

MISCELLANEOUS RUBBER GOODS-BANDAGES.

Fig. 5051-Genuine Martin's Bandages.

		SIZES AND PRICES.		
No.	Length.	Width.	Thickness, Stub's Wire Gauge,	Price.
1	10½ feet.	3 in.	22	\$2 00
IA	101/2 "	3 "	24	1 75
IB	101/2 "	3 ''	28	I 50
2	21 "	31/2 "	22	4 50
2A	21 "	31/2 "	24	4 00
2B	21 "	31/2 "	28	3 00
3	6 "	214 "	22	75
3.4	6 "	214 "	24	60
4	15 "	31/2 "	20	4 00
5	5 "	31/2 "	20	1 30
6	7½ "	31/2 "	20	2 00
7 8	14 "	3 "	24	2 00
8	14 "	3 "	28	I 75
9	21 "		22	4 00
94	21 "	3 " 3 " 3 "	2.4	3 00
9B	21 "	3 "	28	2 50
0	12 "		22	I 75
1	15 "	214 "	22	2 25
12	2 "	214 "	22	50
13	2 "	3 "	22	60

SHARP & SMITH,

Sole Agents for Chicago.

The Empire Elastic Bandage, Specially Adapted for Varicose Veins.

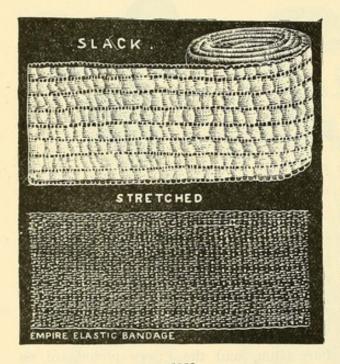


Fig. 5052.

THE ADVANTAGES OF THIS BANDAGE ARE:

ist. Its Porosity—It never causes itching, rash, or ulceration under the bandage.

2d. Its Elasticity, which will enable the surgeon or nurse to put it on at any required tension, and which will follow a swelling up or down, as the case may be, a feature unknown to any other bandage.

a feature unknown to any other bandage.

3d. Its Absorbent Properties.

4th. Its Easy Application to any part of the body, not being necessary to fold it over, as with other bandages, as it follows itself with equal uniformity around any part of the anatomy.

5th. Its Self-holding Qualities. No bother with pins, needles and thread, or strings, so tiresome to surgeons, as simply tucking the end under the last fold insures its permanent stay, until its removal for purpose of cleanliness.

6th. The only bandage that is Superior to the Elastic Stocking for varicose veins.

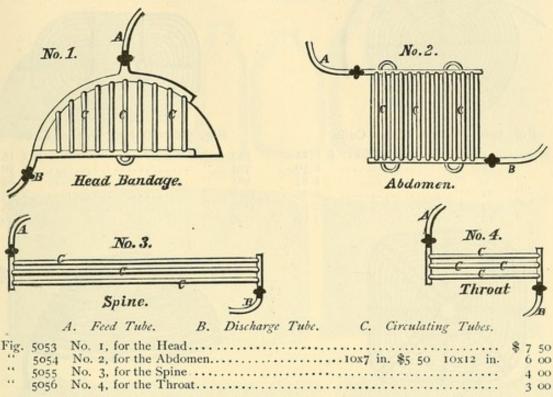
5052

PRICE LIST OF EMPIRE ELASTIC BANDAGES.

2 in. x 3 yds.	(stretched)	\$0 30	2 in. x 5 yds.	(stretched)	\$0 50
21/2 in. x 3 yds.			21/2 in. x 5 yds.	**	-
3 in. x 3 yds.		45	3 in. x 5 yds.		75

MISCELLANEOUS RUBBER GOODS.

SITWELL'S WATER BANDAGES.-Hot or Cold.

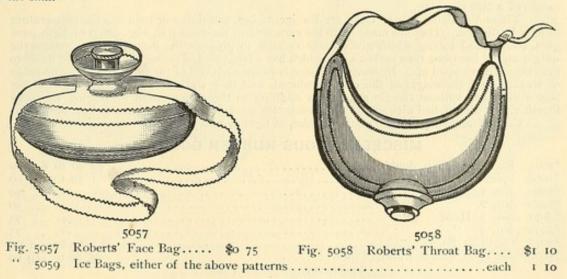


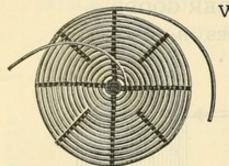
The above bandages will be found invaluable in the treatment of Brain Fever, Concussion of the Brain, Sun Stroke, Typhoid Fever, Puerperal Fever, Diphtheria, and any ailments where the temperature requires to be diminished, sustained, or heightened.

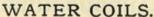
DWIGHT ROBERTS' PATENT HOT WATER BAGS.

These bags are made of fine white rubber, vulcanized under the Goodyear Process, have nickel-plated stoppers, and are warranted perfect. The face bag (see Fig. 5057) is oval shaped, to use around the nose or face.

The Throat Bag (see Fig. 5058) for Hot WATER is curved to fit the neck, with a rubber band and buckle that holds the heat closely to the throat, opening the pores, and softening the skin.







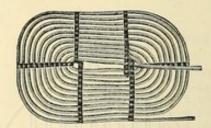


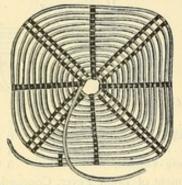
Fig. 50	60-Round	Water	Coils.
---------	----------	-------	--------

Diameter	5	inch									\$ 1	15
"	7	"									I	50
-16	9	"									1	85
**	II	"									2	25
**	13	"									2	65

.......

Fig.	5061-	-Oblong	Water	Coils
------	-------	---------	-------	-------

5×3	inches												\$ 1	15	
7×4													I	50	
9×5	"												1	85	
10x6	**												2	25	
IIX7	"												2	65	
IIX8	"												3	00	



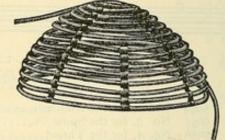


Fig. 5062-Square Water Coils.

6x	6	inches												8	1	85
Sx	8	"										. ,	 		2	25
roi	10	44									. ,				3	00
12x	12	11											 		3	75
14X	14	***											 		4	50

Fig. 5063-Head Coils.

7 in.	diameter,				
Th	ese coils (I	Fig. 50	63) are	made o	f extra

amount of pressure without stopping the flow of water.

Fig. 5063-A-Throat Coils.

9 in. x3 in	\$ I 25	11 in. x3 in	\$ 1 80
10 " x3 "	I 50	12 " x3 "	2 10

These coils (Fig. 5063 A) are finished with rings at each end, and can be easily adjusted by

means of a tape or string.

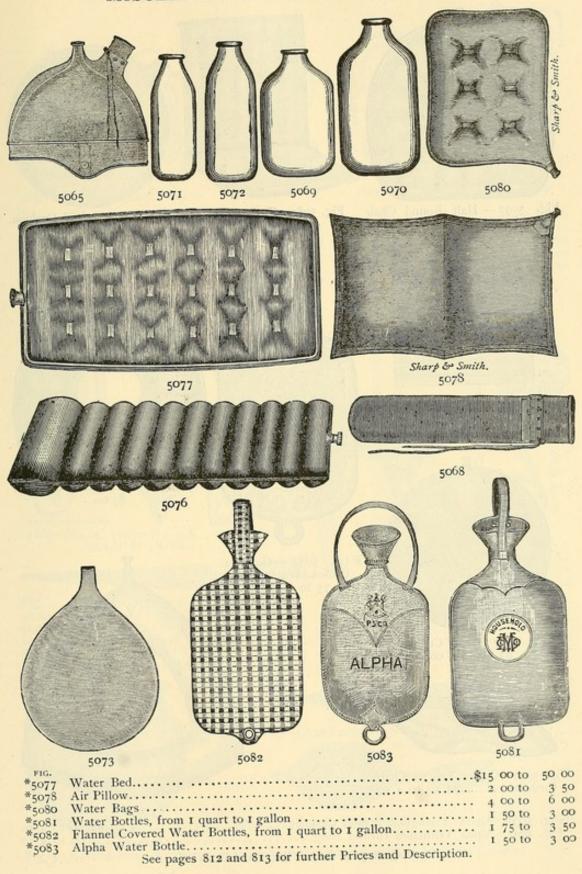
These Ventilated Water Coils are for increasing, sustaining or reducing the temperature as may be desired. They are made (with the exception of the head coil, Fig. 5063) of light pure gum, steam cured tubing which gives water enough to produce the desired effect, reduces the weight and at the same time makes a coil which has a free passage through it, and is not liable to get clogged or stopped up. By leaving a space between each coil of the tubing, a free circulation of air is insured, the weight of the coil is reduced, and they will affect the temperature quicker than coils made without the air space. In addition to the cement used in putting the coils together, they are stitched with silk which increases the strength, and adds greatly to their durability.

Coils of any shape or size made to order, of light or heavy tubing.

MISCELLANEOUS RUBBER GOODS.

*5065	Rubber Ice Cap, double \$2 50 to \$ 3 00
*5068	Spinal Ice Bags
*5069	No. 1, Spinal Ice Bag 50
*5070	No. 2, " " 50
*5071	No. 3, Head " 75
*5072	No. 4, " " 75
*5073	Oval Gas Bags
*5076	Air Beds, with or without Pillow
al h	CONTINUED ON NEXT PAGE.

MISCELLANEOUS RUBBER GOODS.



MISCELLANEOUS RUBBER GOODS.

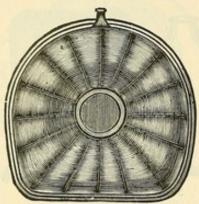


Fig. 5092 — Half Round Chair Cushion......\$5 00

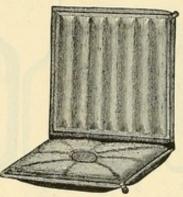


Fig. 5089—Chair Cushion, \$4 00 to 6 00.

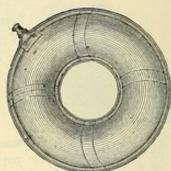


Fig. 5086—Invalid Cushion, \$2 00 to 4 00.

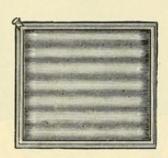


Fig. 5090-Square Reeded Chair Cushion.....\$2 50 to 4 00



Fig. 5093 - Hospital Cushion, \$5 00.

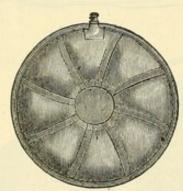


Fig. 5087-Chair Cushion, \$3 50 to 4 00.



Fig. 5084 — Goodyear Crown Water Bottle, \$1 75 to 3 oo.

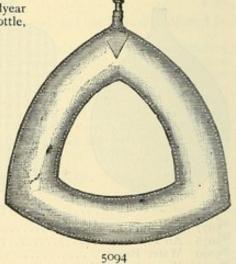
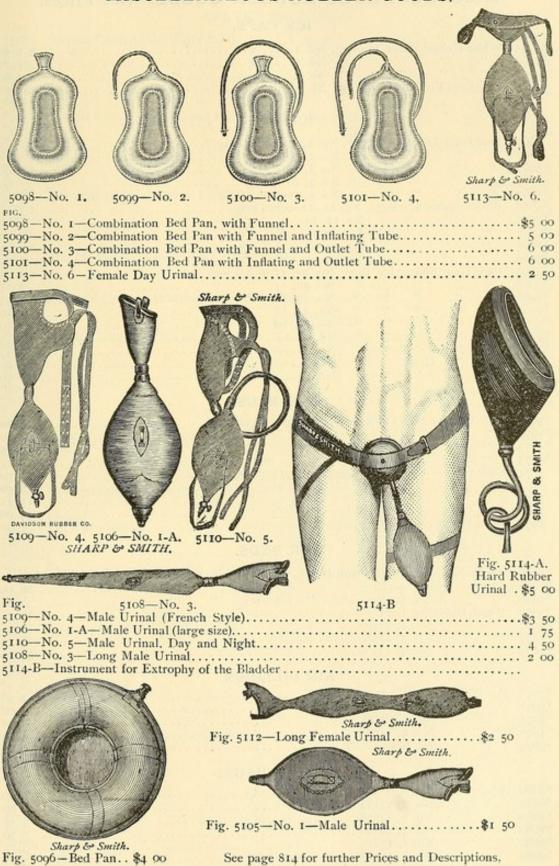


Fig. 5091-Center Reeded Chair Cushion.....\$2 50 to 4 00

See Page 813 for further Prices and Descriptions.

MISCELLANEOUS RUBBER GOODS,



MISCELLANEOUS RUBBER GOODS.—Net Prices.

	ICE CAPS.
FIG.	102 011 0.
*5065	White Helmet Shape Ice Cap, No. 1
*5065	" No. 2
*5065	200
5066	Pure Gum Flat Shape Ice Cap, No. 4
	ICE BAGS.
5067	Pure Gum Throat Ice Bags, No. 1, 7 inches long\$ 75
5067	" " No. 2, 8 " "
5067	" " No. 3, 9 " " 90
5067	" " No. 4, 10 " "
5067	10.5, 11
*5068 *5068	White Spinal Ice Bags, No. 11, 12 inches long
*5068	" No. 12, 14 "
*5068	" " No. 14, 18 " " 1 25
*5068	" " No. 15, 20 " "
*5068	Pure Gum Spinal Ice Bags, No. 21, 12 inches long 1 25
*5068	" " No. 22, 14 " " 1 25
*5068	" " No. 23, 16 " " 1 25
*5068	" " No. 24, 18 " " 1 50
*5068	" " No. 25, 20 " " 1 50
*5069	" " No. 1
*5070	10. 2
*5071 *5072	nead No. 3 50
50/2	" " No. 4 50
	GAS BAGS.
*5073	Pure Gum or Slate Color Oval Gas Bags, 3 gallon
*5073	" " 5 " · · · · · · · · · · · 2 50
*5073	" " " " 8 " 3 25
*5073	" " " " 10 " 5 25
5074	Slate Color Oblong Gas Bags 18x24 15 gallon 7 50
5074	" " 20x30, 25 " 8 50
5074	24×30, 35
5074	Brass Stop Cocks for Gas Bags
5075	Diass stop cocks for oas bags
	AIR BEDS.
*5076	Air Beds, No. 1, 32x80-with Pillow, \$25.00; without Pillow \$20 00
*5076	" No. 2, 42x80— " " 30.00; " "
*5076	" No. 3, 52x80— " " 38.00; " "
*5077 *5077	Water Beds, No. 1, 24x36
*5077	" No. 3, 42x80
*5077	" No. 4, 52x8o
2011	10. 4, 32.00
	AIR PILLOWS.
*5078	Air Pillows, No. 1, 9x13\$ 1 50
*5078	" No. 2, 10x16 2 co
*5078	10. 3, 12810 2 25
*5078	10. 4, 1423 2 50
5079	(for Neck)
	WATER BAGS.
*5080	Water Bags, No. 1, 13x15 \$ 3 00
*5080	" No. 2, 14x14
*5080	" No. 3, 14x18 3 50
*508o	" No. 4, 16x16 3 50
*5080	" No. 5, 17x19 3 75
*5080	" No. 6, 18x18 3 75

MISCELLANEOUS RUBBER GOODS.—Net Prices.

				WAT	TER	BOT	TTI	LES.							
#5081	Rubber	Cloth-Lin	ed Water	Bottle	e No	1.1	one	rt			· Jacob de la company		\$	T .	00
*5081	"	"		,	No.		44								25
*5081	11			•	No.	3, 3	66							I	50
*5081	**				No.	4, 4	"								75
*5081	"	"			No.		**								00
*5081					No.										25
*5082 *5082	Kubber	Cloth-Lin	ed Flanne	: Cov	ered	wate	i be		0. 2,						25
*5082	44	44		44					0. 3,						-
*5082	64	44							0. 4,						00
**5082	14	**		**			**		0. 5,						25
*5082	6.6	**		**			**	N	0. 6,	6 "					50
*5083	The Al	pha Rubbe	r Water I	Bottle,		rt								I	10
*5083		- 11			2 "										35
*5083					3			• • • • • •		• • • • •					65
*5083 *5083	- 11		**		4			• • • • • • •					• • • • •		95
*5084	The Co	odvear Cr	own Rubb	or W	5 ater B	ottle	20								25 25
*5084	THE GO	ouyear Ci	11 11		arci in	ottic,	3								50
*5084							4								75
5085	Fountai	n Syringe	Attachme	nt for	Wate	r Bot	tle.						set		75
		, ,						ONS							
****	Townslid	Cuelden 1								inak					25
*5086 *5086	invand	Cushion,	white or a	state (No.	2,	Diame	ier,	0.0			\$		25
*5086	**	44	44	44		No.	3	**	11						50 75
*5086	**		44	**		No.	4	**	12						75
*5086	11.	4.6	**	**		No.	5	**	13	22					00
*5086	**	44	- 11	44		No.	6	**	14					2	00
*5086	44	"	"	"		No.	7	"	15					2	25
*5086	"		::	**		No.	8		10	44 .					25
*5086	"					No.	9		17						50
*5086		- //=				No.	10		18					2	75
				CHA	IR C	US	HIC	NS.							
*5087	Round	Chair Cusl	hion, Rub	ber ar	nd Clo	th, N	lo.	, Dian	neter	. 15 in	nch.		8	2	25
5088	**	44		•			lo. :	2,	**	17					75
*5089	Invalid	**		•	**							16x16		5	co
*5089	**	"			**		0. 2		"(16x16)		16x18		-	50
*5089	"	**			**		0. 3	,		16x18		18x18			00
*5089 *5090							6. 4		,	18x18		18x20	_		25
*5090	Chair C	ushion, So	uare Kee												75
*5090		44	"			1000000								1000	25
*5090	11	44	**	1	No. 4.	16x1	8								50
*5001		" Ce	nter Ree	ded, 1	No. 5.	12X1	6								75
*5091	"	"		1	No. 6,	14x1	6								00
*5091		"	"												25
*5091															50
*5092 *5093		111	alf Round											0.75	50
*5094		d Cushion nvalid Cus												-	00
*5094	Tripina I			2, 15											50 75
*5094	44	**		3, 17											00
5095	Alpha V	Ventilated				Ι,									25
5095	11	**	**		No.	2,	10	44	**						40
5095	**	44	**	**	No.			**						1	50
5095	- 44	**		"	No.	4.			**						60
5095				- "	No.	5.	-	**	**						75
5095	44	11			No.	6,									85
5095			**		No.	7, 8,			"						95
5095	**	11	44	**	No.	9,		**	**						10
	100				4.7.7.7	200	* /							-	-
5095	"	"	"	4.	No.	10,		4.6	**					2	25

MISCELLANEOUS RUBBER GOODS,-Net Prices.

FIG.	BED PANS.	
*5096	Plain Round Bed Pan \$ 2	75
5097	" " with Discharge Tube	50
*5098	Combination Bed Pan, No. 1, with Funnel, old style	50
*5099	" No. 2, Inflating Tube, new style 3	50
*5100	" No. 3, with Funnel and Outlet Tube 4	00
*5101	(f (f (f))	00
5102	Emmet's Bed Pan	75
5103	Drakely's Bed Pan	75
5104		00
5104-	A Earthen Bed Pan	00
	Jones' Bed Pan and Douche, see page 644.	
	URINALS.	
*5105		CO
*5106	" No. 1-A, for day use (large size) 1	15
*5107		00
*5108	" No. 3, for day and night use 1	25
*5109		25
*5110	" No. 5, for day and night use 3	00
5111	" No. 15, for day and night use. Style of No. 5 (child's	
	size) 2	50
*5112		50
*5113		25
5114	" " No. 16, for day use 2	00
*5114-	A Hard Rubber Urinal	75
5114-	B Instrument for Extrophy of the Bladder	
	RUBBER TUBING	
5115	Pure Gum Black Rubber Tubing, § inchper foot \$0	18
5116	" " " " " " " " " " " " " " " " " " " "	15
5117	" " " " " " " " " " " " " " " " " " " "	12
5118	" " , " , " , " , " , " , " , " , " , "	10
5119	11 11 11 11 11 11	08
5120	White Rubber Tubing, 1 inch	25
5121	" " " * " * " * * * * * * * * * * * * *	20
5122	· · · · · · · · · · · · · · · · · · ·	18
5123	" " " " " " " " " " " " " " " " " " "	14
5124	" " " " " " " " " " " " " " " " " " " "	12
5125	" " 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	II
5126	" " " " " " " " " " " " " " " " " " "	8
5127	" " " " " " " " " " " " " " " " " " " "	5
Rubber	r Drainage Tubes and Tubing, see "Miscellaneous and General Surgical Necessities," a	ind
	"Index."	

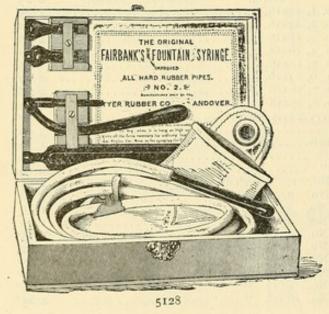
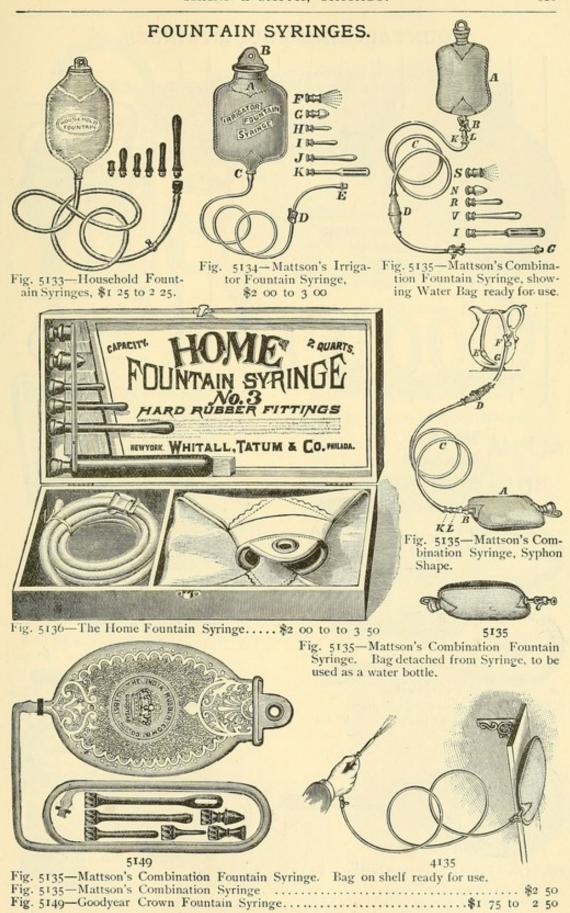


Fig. 5128.—Fairbanks' Improved Fountain Syringe.

This Syringe, like all of our Fountain Syringes, has all Hard Rubber Tubes. The Tubes fit in a "rack" in top of case, and include a Vaginal Irrigator Tube in addition to the other tubes which go with all Fountain Syringes.

These Syringes are put up in fine Polished Wood Cases.

Price......\$1 25 to 2 25



FOUNTAIN AND BULB SYRINGES.

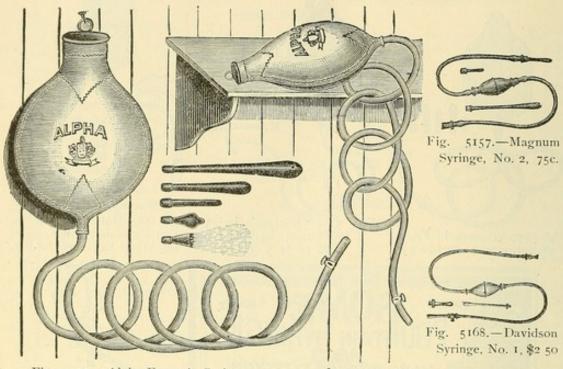


Fig. 5137.—Alpha Fountain Syringe...........\$1 50 to 2 50

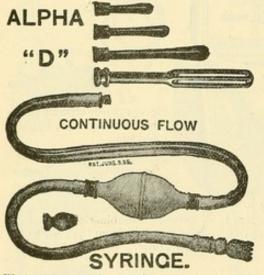


Fig. 5152.—Alpha "D", continuous flow Syringe.....\$2 00

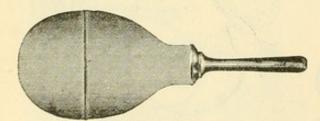


Fig. 5170.—Large Bag Rectum Syringe.. \$2 50 See page 818 for other prices and descriptions.

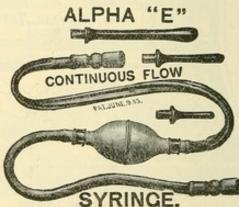


Fig 5153.—Alpha "E", continuous flow Syringe...... \$1 50

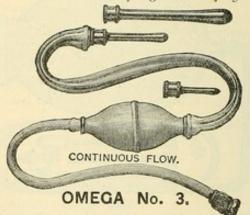
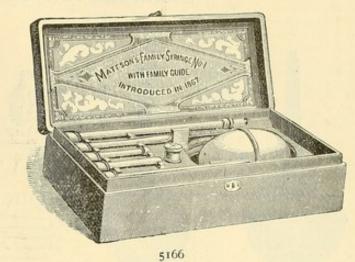


Fig. 5155.—Omega "No. 3", continuous flow Syringe.....\$1 50

Contradition Contradition of the Contradition

BULB SYRINGES.



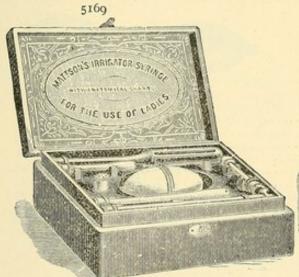


Fig. 5163. Mattson's No. 1, Irrgator Bulb Syringe...... \$2 50



Fig 5167. Physicians' Companion Syringe......\$2 50

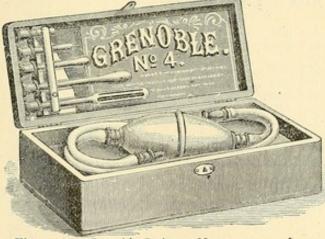


Fig. 5171. Grenoble Syringe, No. 4........\$2 00

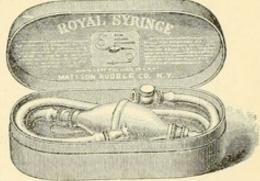
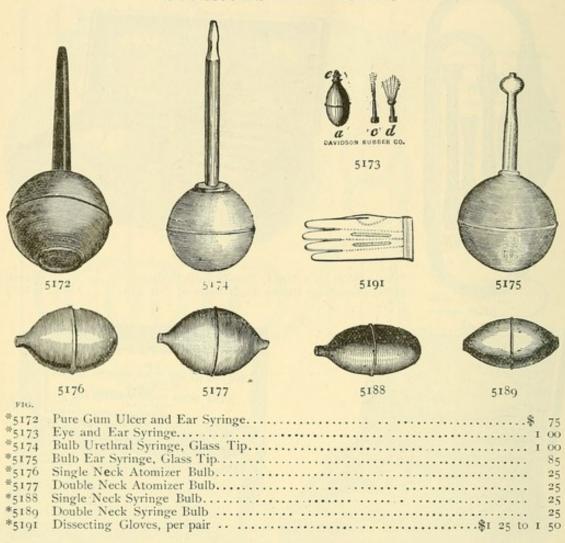


Fig. 5161.—Mattson's No. 1, Royal Bulb Syringe......\$1 50

See Page 819 for other Prices and Descriptions.

SYRINGES AND BULBS.



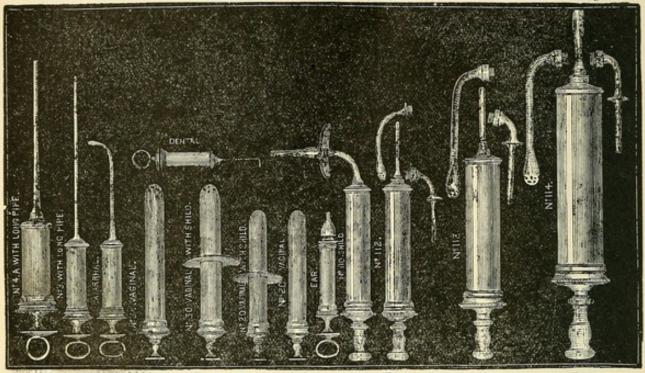
FOUNTAIN SYRINGES

*5128	Fairbanks	Fountain	Syringe,	No.	I, I	pint				 	 	 		 	 \$1	00
*5128		4.4		**												25
*5128	44	6.6	4.6	16	3. 2										I	50
*5128	11	4.6	44	**	4 3	44										00
5120	Climax	**	44	**	LI	pint							-			00
5130	44	4.4	61		2. I	quar										20
5131	44	64	- 64	**	3, 2	11										55
5132	**		44	- 66	4. 3	11										70
*5133	Household		11		11, 1	pint										50
*5133	11	**	**			quar										25
*5133		44	6.	" 1	2 2	dam										
			**			66										35
*5133	- 16	- 11			4, 3									 		50
*5133	35				5, 4	**										75
*5134	Mattson's	Irrigator	Fountain	Syri	inge,				art.	 	 	 ٠.		 	 I	50
*5134	4.4						2, 3	3 "		 	 	 			 I	75
*5134	**	1.6	"		**	4.4	3, 4	1 "		 	 	 		 	 2	00
*5135	" (Combinatio	n "		**			3 "		 	 	 		 	1	50
																1

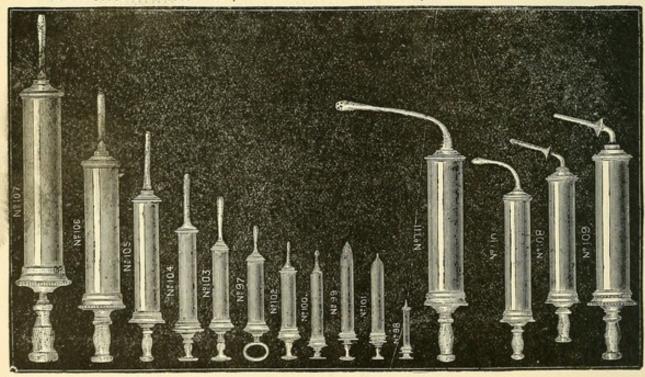
*5136	The "Home" Fountain Syringe, No. 2, 1 quart	er
*5136		\$I 50
5130	" " 3, 2 "	I 75
*5136	5, 3	2 00
*5137	The Alpha	I 25
*5138	3,	I 75
*5139	4,	2 00
*5140	Goodyear Crown " " 2, I quart	I 25
*5140		I 50
*5140		I 75
5141	Fountain Syringe Attachment for Water Bottle Set	75
5142	Glass Vaginal Syringe Tubeseach,	15
5143	Hard Rubber Vaginal Syringe Tubes "	25
5144	Glass Rectal Syringe Tubes	10
	Hard Rubber Rectal Syringe Tubes	
5145	Hard Rubber Rectal Syringe Tubes	15
	BULB SYRINGES.	
5146	The "Lady's" Syringe	\$2 50
5147	Molesworth's Vaginal Syringe No. 1	I 25
5147		1 25
5147	" " 3	1 25
5148	"Atlas" Hard Rubber Vaginal Syringe	
	"Alpha" "A" continuous flow	
5149		I 50
5150		1 50
5151		I 75
*5152	D	I 35
*5153	E	I 25
5154	" "I" " "	I 00
*5155	"Omega" No. 3 " " "	I 00
5156	Indispensable Cup Vaginal Syringe	3 00
5157	Hawley's Vaginal Syringe	2 50
5158	Magnum, No. 1, Bulb Syringe	60
*5159	" " 2, " "	50
5160	Chamberlain's Vaginal "	1 75
*5161	Mattson's No. 1 Royal "	
5101	Mattson's No. 1 Royal	1 00
5162	2	I 25
*5163	1 Inigator	I 75
5164		I 25
5165	" " 3 " "	I 00
*5166	" " I Family "	I 25
*5167	The Physician's Companion Syringe	2 50
*5168	" Davidson Bulb Syringe No. 1	I 50
*5169	" Goodyear Crown Syringe No. 513,	75
*5170	Large Bag Syringe for Rectum Injections	1 75
*5171	Grenoble No. 4 Bulb Syringe	1 50
3-1-	Orenous I to 4 same symmetry	- 3
	MISCELLANEOUS SYRINGES AND TUBES.	
*5172	Pure Gum Ulcer and Ear Syringe	\$0 40
*5173	Eye and Ear Syringe, Metal Pipes	50
*5174	Bulb Urethral Syringe Glass Tips.	75
*5175	" Ear " " "	60
	BULBS.	
*5176	Single Neck Atomizer Bulb	\$0 25
*5177	Double " " "	25
*5188	Single " Syringe "	25
*5189	Double " " "	25
5190	Dissecting Sleeves, per pair	I 25
*5191	"Gloves, Gents', per pair	I 50
*5191	" " Ladies', "	I 25
2-9-		3
	RUBBER SHEETING.	
5192	34 yard wide Rubber Sheeting, per yard	
5193	I " " " " " " " " " " " " " " " " " " "	75
5194	1¼ " " " "	1 00
5195	1½ " " " "	I 25

820 HARD RUBBER SYRINGES.

No.	Each.	No.	Each	. No	Each.
112	\$2 00	30	\$1 00	4-	A Extra Long Pipe\$2 00
113	2 00	20 Sh	ield I 00	De	ental 75
114	3 00	30	" I 50) Ea	ır I 00
20	75	3 E	tra Long Pipe I 25	5 Ca	tarrhal 1 25



No.	Ea	ich.	No.	Eac	ch. [No.	E	lach.
97	\$	75	103	 \$	75	108	\$1	75
98		50	104	 I	co	109	2	2 50
99						110		
100		50	106	 I	75	110 Shield	1	75
101		60	107	 2	50	III	2	00
102		60						



McINTOSH BATTERIES-Discount 20 per cent.

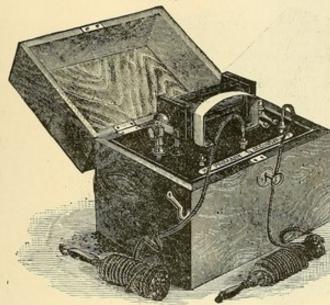


Fig. 5250.—McIntosh Family Faradic Battery ...\$10 00

There is a constant demand for a low priced Faradic Battery, not a mere toy, such as is offered to the public, but one made of good material, in a substantial mauner, and that will give a smooth, even current, suitable for family use. This has induced us to make the above battery, which we believe will meet this want.

It is made on the same principle as our higher priced Faradic Batteries, and is portable. It is not iniended to take the place of the physician's battery, but for domestic use.

It is put up in a neat black-walnut case $6\frac{1}{2}$ inches long, 6 inches high, and 5 inches wide, with lock and handle, and furnished with electrodes and conducting cords, all the metal is finely nickel plated.

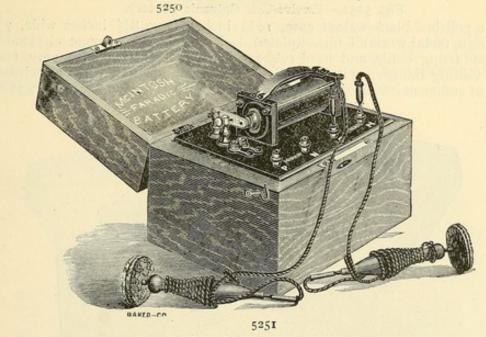


Fig. 5251.-McIntosh Physicians' Faradic Battery.

It has a hard rubber cell and drip-cup. First-class induction coil, with polished hard rubber ends and cover. The coil, binding posts and rheotome are placed on the upper surface of a polished hard rubber plate, the under surface of which is covered with soft rubber, and also holds the zinc and carbons. When the elements are removed from the cells and placed in the drip-cup, this plate is securely clamped over them, and makes them water tight. The connections of the coil with the zinc and carbons are permanent.

To use this battery, it is only necessary to loosen the thumb-screws and raise the elements from the drip cup and place in the cell, and the battery will commence to work at once; connect one end of the conducting cords with the binding posts, and the others with the sponge electrodes, and it is ready to use.

It is very convenient for a physician's visiting battery, or family use, as it is light and perfectly portable, and gives sufficient strength to treat any case where the Faradic or induced current is needed.

Price of battery with first-class sponge electrodes, and our new cable conducting cords....\$18 00

McINTOSH BATTERIES-Discount 20 per cent.

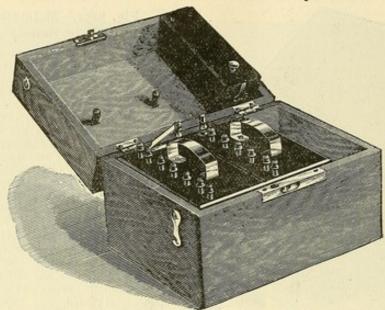


Fig. 5252.—Twelve-Cell Galvanic Battery.

In a polished black-walnut case, 10½ inches long, 8¼ inches wide, 7¼ inches high, metal work all nickel-plated, lock and handle, sponge electrodes, cable conducting cords, and hard rubber electrode box. This is a very convenient visiting Battery, as it only weighs eleven pounds, and gives a galvanic current of sufficient intensity to treat any case where it is indicated. Price \$30 00

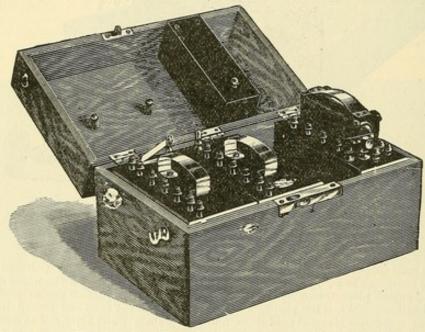


Fig. 5253.-Twelve-Cell Combined Galvanic and Faradic Battery.

Same style of case and finish as the above, 13½ inches long, 8¼ inches wide, 7¼ inches high, with first-class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, electrodes, our new cable conducting cords and hard rubber electrode box. This Battery gives a galvanic current same as above described, and a Faradic current of sufficient strength to treat any case. Price \$40 oo.

McINTOSH BATTERIES-Discount 20 per cent.

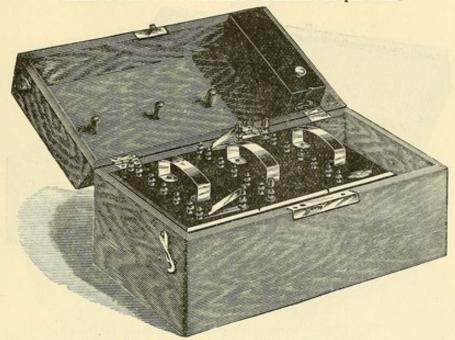


Fig. 5254.-Eighteen-Cell Galvanic Battery.

In a polished black walnut case, 14¼ inches long, 8¼ inches wide, 7¼ inches high, with lock and handle, metal work all nickel plated, first class sponge electrodes, cable conducting cords and hard rubber electrode box. This is the most convenient size for a physician's use, as it gives a powerful current, and weighs but little over 15 pounds. Price \$40 00.

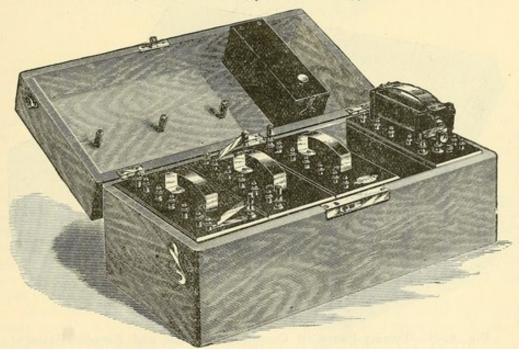


Fig. 5255.—Eighteen-Cell Combined Galvanic and Faradic Battery.

Same style of case and finish as the above, 17 inches long, 8¼ inches wide, 7¼ inches high, with first class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, sponge electrodes, cable conducting cords, and hard rubber electrode box. This is the most convenient Battery for a physician's use, as it gives a very intense galvanic current, and a Faradic current of sufficient strength to treat any case, and is perfectly portable. Price \$52 50.

McINTOSH BATTERIES-Discount 20 per cent.

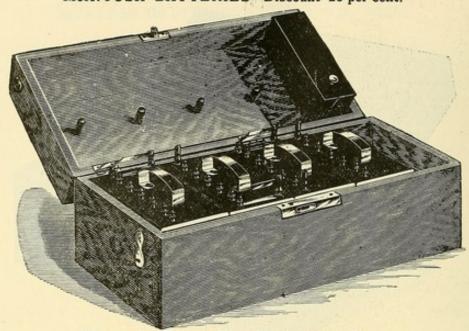


Fig. 5256.—Twenty-Four-Cell Galvanic Battery.

Same style case, finish, electrodes and cords as the eighteen-cell battery. Case is 18 inches long, 8¼ inches wide, and 7¼ inches high, with lock and handle and hard rubber electrode case; weighs less than 20 pounds.

This battery gives a galvanic current of great intensity, sufficient to treat any case where it is indicated. Price \$55 00.

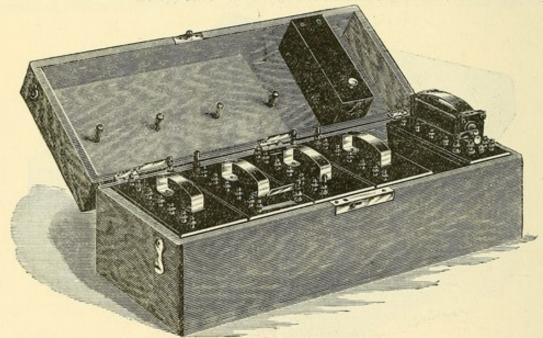


Fig. 5257.-Twenty-Four-Cell Combined Galvanic and Faradic Battery.

Same style of case and finish as the above, 20¾ inches long, 8¼ inches wide, 7¼ inches high, with first-class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, sponge electrodes, cable conducting cords, and hard rubber electrode box.

This battery gives same intensity of galvanic current as the above, and a Faradic current of sufficient strength to treat any case. It weighs only 24 pounds, and is perfectly portable.

McINTOSH BATTERIES-Discount 20 per cent

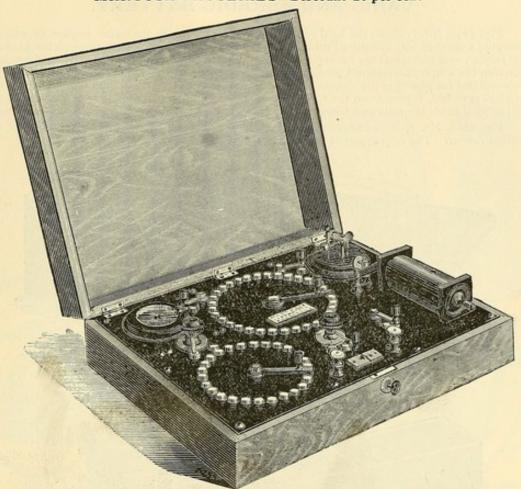


Fig. 5258.-McINTOSH TABLE BATTERY.

This was designed by Dr. McIntosh to meet the wants of physicians who desire a compact and complete office battery. This arrangement is a beautiful piece of work. The following accessories, finely nickel plated, are tastefully arranged on a board of polished hard rubber, 12x16 inches: A Galvanic Switch for thirty-two to sixty cells; an Automatic Rheotome, giving fast or slow interruptions; Galvanometer; Pole Changer; Current Indicator; Binding Posts; large Faradic Coil, with polished hard rubber ends and cover; a Coil Rheostat of twenty-five coils of one hundred ohms' resistance each, whereby from one hundred to two thousand five hundred ohms' resistance can be brought into either the Galvanic or Faradic circuit, by simply moving the circular switch. This can be furnished in black-walnut case, on an office table or cabinet case. This is a very perfect and elegant piece of work, and receives the approval of physicians at sight.

Each instrument is furnished with a thirty-two cell Gravity Battery and connections. This battery can be placed in a closet or a cellar, out of the way, as it requires but very little attention.

Any kind of battery cell furnished with the cost of the change added to the above price.

DESCRIPTION OF THE McINTOSH COMBINED GAL-VANIC AND FARADIC BATTERY.

Fig. 5259, No. 1, shows the hard rubber plate of a section (on the under surface of which is cemented a sheet of soft vulcanized rubber) and binding posts which project through the hard and soft rubber, and screw into the brass piece holding the zinc and carbon couples. The rubber plate on which the couples are clamped project over one side enough to cover the cells when the zinc and carbon plates are placed in the drip-cups. When the cells are not in use, and the lid of the Battery box is closed, it presses on the *spring handle* of the section (5259, No. 1) and holds the soft rubber firmly over the cells and drip-cup. By this arrangement the hydrostat is made water-tight.

Fig. 5260, No. 2, shows a section of six cells and a drip-cup, made of one piece of hard vulcanized rubber. The drip cup is to receive the zinc and carbon couples when not in use.

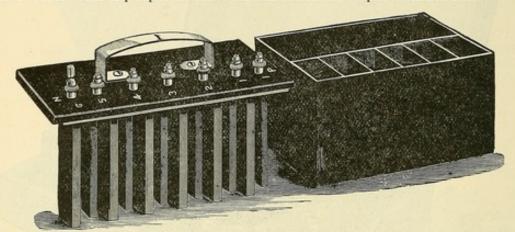


Fig. 5259, No. 1.

Fig. 5260. No. 2.

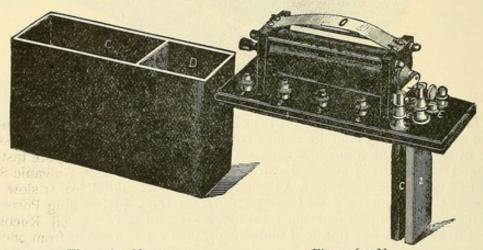


Fig. 5261, No. 3.

Fig. 5262, No. 4.

An extra cell of large size is added to the combined Battery for the purpose of running the Faradic Coil (Fig. 5261, No. 3). This renders the Battery more perfect than any yet offered to the profession. This extra cell gives sufficient power for the Faradic current, and the operator is not obliged to connect and exhaust the current from the galvanic cells. If greater strength is ever needed in an emergency than the extra cell gives, the galvanic cells can be connected with the coil. (See directions). The Faradic Coil (Fig. 5262, No. 4) is securely fastened on a plate of polished hard rubber, which serves for a cover to the large cell and drip cup, and to hold the elements. Soft rubber is cemented on the under side of this plate, which is securely clamped over the cell and drip-cup, when the lid of the Battery box is closed, by means of pressure on the spring fastened on the coil. Each Battery is furnished with a hard rubber Electrode box, which is placed in the cover of the Battery. This Combined Battery gives greater quantity and intensity than any ever offered to the profession. It weighs less, occupies less space, and is perfectly portable.

LEE'S IMPROVED GAIFFE POCKET BATTERY.

With either Closed or Open Cell.

Generating Four Currents

1st. Posts 2 and 3 the Primary.

2d. Posts I and 2 the Secondary.

3d. Posts 1 and 3 the Combined.

4th. Shocks or Shocking Current.



Explanation of Electrodes and Accessories which go with this Battery.

- A. Positive Pole.
- B. Negative Pole.
- C. Springs to hold Cell.
- D. Gaiffe Cell.
- E. Nickeled Cylinder Handles. K. Current Regulator.
- F. Sponge Electrode.
- G. Tinsel Brush Electrode. H. Olive Pointed Electrode.
- H. Olive Pointed Electrode.

 N. Current Switch.

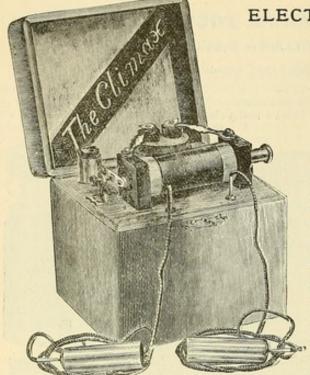
 I. Bottle Bisulphate Mercury.

 O. Cord Tips.
- J. Universal Celluloid Handles P.& R. Doubly Insulated Silk K. Current Regulator. S. Insulators for Tips.
- L. Rheotome. U. Lee's Improved Closed Cell.
- M. Rheotome Regulator.
- Cords.

- T. Circular Exciter Electrode.

The Battery is sold with either the Gaiffe (open cell), or with the improved closed cell, whichever is wanted by the purchaser.

Price complete, with all Electrodes, \$10 oo. Discount 25 per cent.



Flemming's Batteries Discount 20 per cent.

THE CLIMAX.

A Portable Faradic Battery.

Pat, July 4, 1871. Pat. Aug. 13, 1885.

This battery is encased in a neatly finished box, polished cover. Its construction is very simple, yet the manufacturer has retained many improvements that have here-tofore been employed only on more expensive machines. One very essential feature of this battery is, that it can be carried about without spilling any of the fluid, the cell being closed by means of a soft rubber stopper of the best quality. Into this stopper are fitted acid proof stoppers, to which are attached the elements; these can easily be removed, as well as the soft rubber stopper, the latter being removed only when the jar is to be filled.

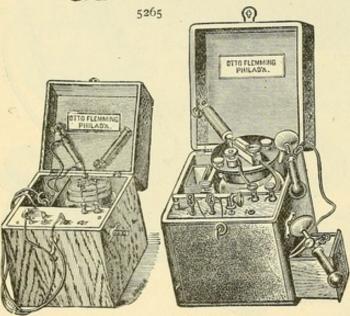
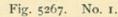


Fig. 5266. No. o.



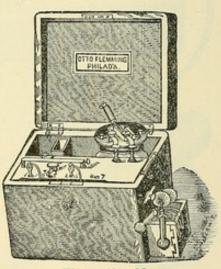


Fig. 5268. No. 2.

No. o FARADIC BATTERY.

Nickel plated, polished case with carrying handle, cotton covered cords, one regular sponge electrode, and one tubular tin handle.

No. 1 FARADIC BATTERY.

No. 2 FARADIC BATTERY.

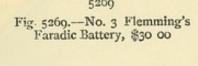
Finished as well as the No. I Battery, but coil one inch longer, and therefore more powerful, with the addition of a Commutator.

FLEMMING'S BATTERIES .- Discount 20 per cent

OTTO FLEMMING PHILADELPHIA.

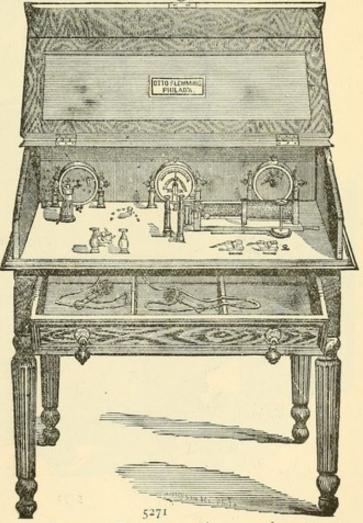
No. 3.-FARADIC BATTERY.

This Battery is the finest and most complete of its kind ever manufactured. It is provided with a slow and a rapid Rheotome, or current interrupter; a Commutator, or polarity changer; Scales, by which the primary and secondary currents may be graduated to the utmost delicacy or the greatest power; and with our new patent Galvanic Cell. This cell, which is charged with a solution of bi-chromate of potassium, is so made that when not in action, the zinc is taken out of it altogether, and placed in a vulcanite cell provided for the purpose. The aperture through which it passes is covered by a rubber hydrostat, making the cell perfectly fluid-tight, and saving both the fluid and the zinc from the effect of splashing in transportation, or of immersion in case of upsetting. By this plan also, the cell can be filled nearly to the top and the zinc be made twice the usual length; it will thus produce a stronger current, and last a longer time. This Battery is inclosed in a handsome walnut case, 7 1/4 x 7 1/2 x 8 1/2 inches, has all its metallic parts finely nickel plated, and weighs, when charged, only ten pounds.





Cell for Faradic Battery, \$3 00



Flemming's Table Battery, \$200 00 to \$250 00

Flemming's Batteries Discount 20 per cent.

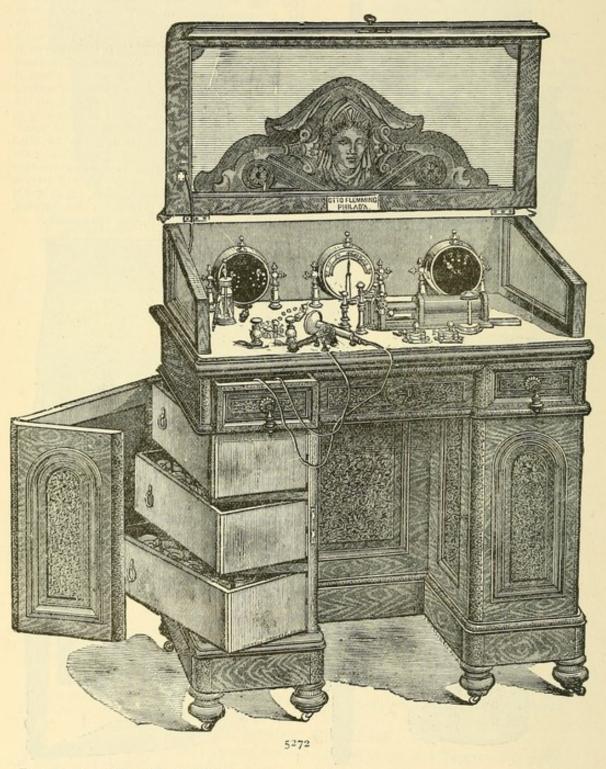
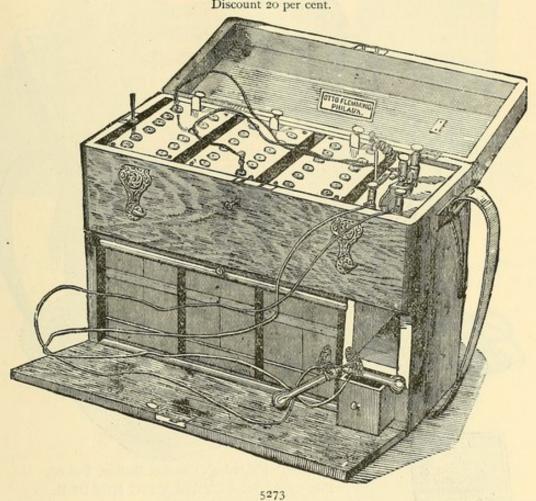


Fig. 5272.—Flemming's Cabinet Battery...... \$300 00

ELECTRIC BATTERIES AND APPARATUS. FLEMMING'S NEW IMPROVED PORTABLE CONSTANT GALVANIC CURRENT BATTERY

Discount 20 per cent.



						Price, 60 Cell Battery\$100 00
**	20		**	 45	00	Galvanoscope 5 00
- 11	30	- 64	44	 65	00	Automatic Rheotome 10 00
**	40	**	"	 So	00	



Fig. 5274.—AUTOMATIC RHEOTOME.

For interrupting the constant current once, twice, four, and eight times a second. It can be attached to any form of Galvanic Battery.

Price \$12 00

FLEMMING'S BATTERIES-Discount 20 per cent.

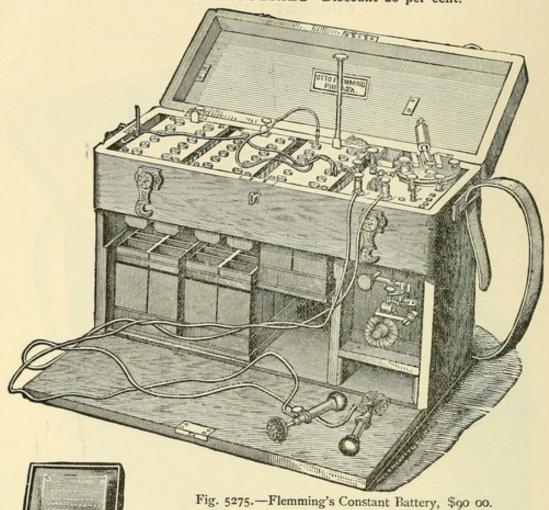


Fig. 5276.—ELECTROLYTIC NEEDLE.

Case containing six Electrolytic Needles, gilt points, straight and curved, with conducting cords. Price \$7 00. Single Needle \$1 25.

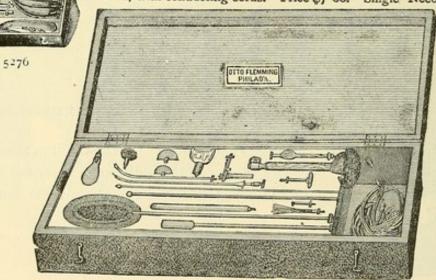
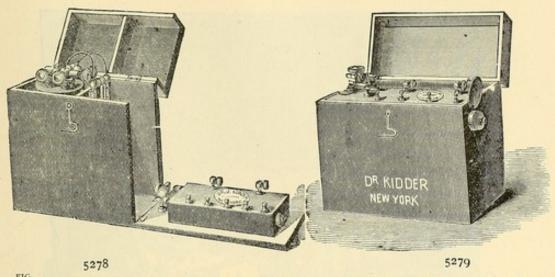


Fig. 5277.—Electrodes. Case containing 20 Electrodes and Conducting Cords. \$20 00

KIDDER'S BATTERIES-Discount 20 per cent.



*5278 Kidder's Physicians' Visiting Battery, No. 2......\$27 co. Nickel-Plated.....\$30 00
*5279 " " 3...... 27 co. " 30 00

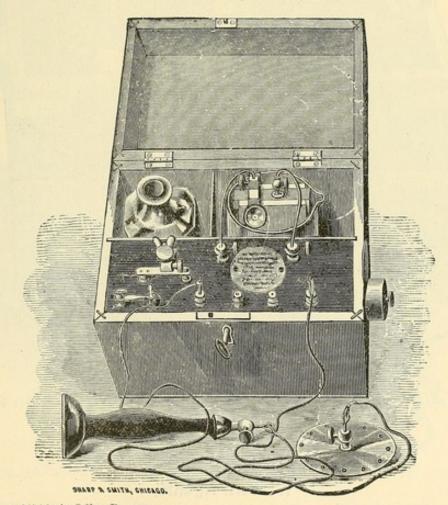


Fig. 5280.—Kidder's Office Battery\$20 00

KIDDER'S BATTERIES-Discount 20 per cent.

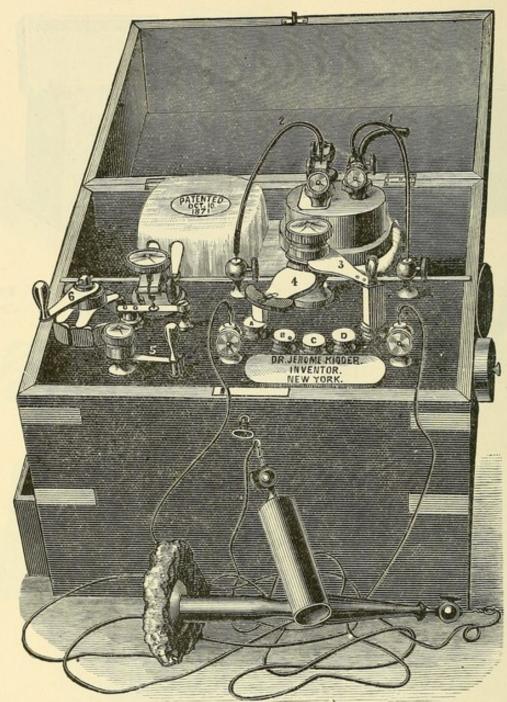


Fig. 5281.—Kidder's No. 1, Physicians' Office Apparatus, large size, \$50 00.

SHARP & SMITH,

Western Agents,

73 RANDOLPH STREET, CHICAGO, ILL.

KIDDER'S BATTERIES-Discount 20 per cent.

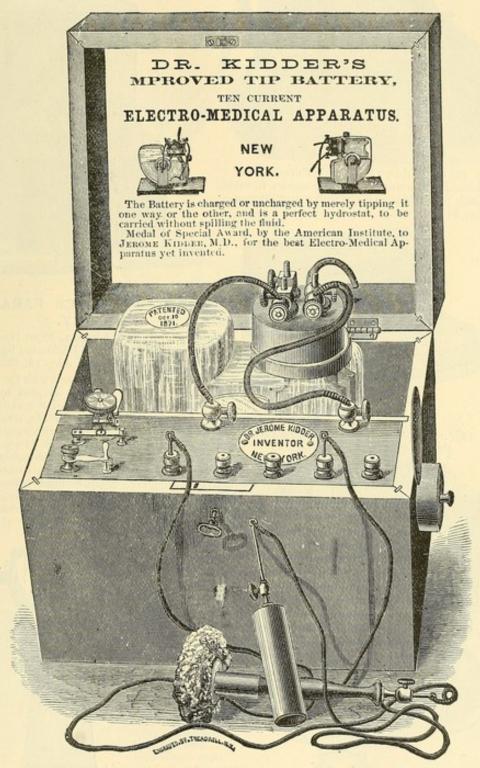


Fig. 5282.—Kidder's Improved Tip Battery\$27 00

SHARP & SMITH, Western Agents, 73 Randolph St., Chicago, Ill.

DR. J. KIDDER NEW YORK.

Fig. 5283.—Kidder's Family Six-Current Electro Medical Apparatus, in more compact form, for family use. Price, with Handles and Sponge Holder, \$14 40, net.

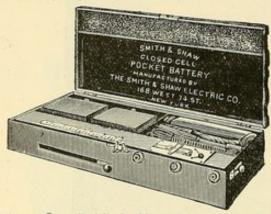
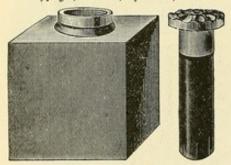
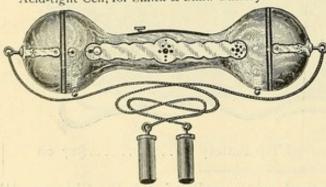


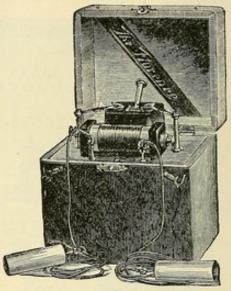
Fig. 5285.—Smith & Shaw Battery, 1 cell, \$7 50; 2 cells, \$10 00, net.



Acid-tight Cell, for Smith & Shaw Battery.



ELECTRIC BATTERIES AND APPARATUS.



5284

Fig. 5284.—FLORENCE FARADIC BATTERY.

Hinged Rod, patented Feb. 1, 1870; Hydrostat, patented July 18, 1871; Perforated Spring Connection, patented Aug. 18, 1885.

This battery is manufactured with the special view of producing a machine adapted to family use. It has been the object of the manufacturers to simplify as much as possible, retaining at the same time all the latest improvements which make our Electric Apparatus so famous. All metal parts nickel-plated, with "Drescher's" patent Hard Rubber Hydrostat, silk covered conducting cords, etc., it represents a battery of at least three times its cost. The object of the manufacturers has been to keep the price within such limits that the machine is within the reach of all. \$6 00, net.

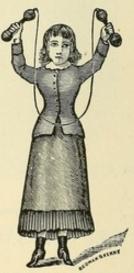


Fig. 5286.—Electric Dumb Bell, \$9 00, net, pair.—5286. In use.

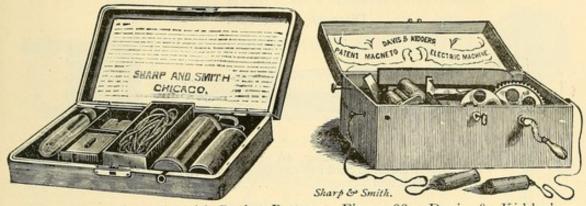


Fig. 5287.—Sharp & Smith Pocket Battery, Fig. 5288.—Davis & Kidder's Crank Battery, \$8 00, net.

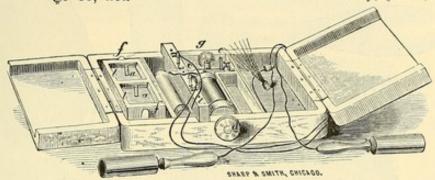


Fig. 5289.—Gaiffe's Battery, \$7 50, net.

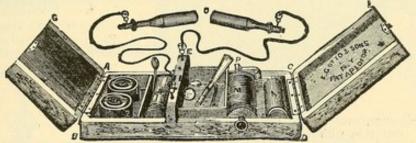


Fig. 5290.—Drescher's Pocket Battery, No. 3, \$9 00, net.

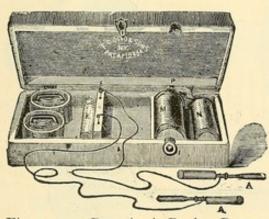


Fig. 5291.—Drescher's Pocket Battery, No. 2, \$7 50, net.



Fig. 5292.—Drescher's Pocket Battery, No. 1, \$5 00, net.

McINTOSH'S BATTERY ELECTRODES.

Discount 20 per cent.

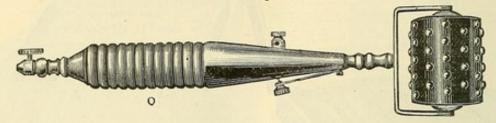
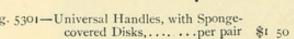


Fig. 5300-Wheel Electrode of Hard Rubber, set with metallic points for muscular Faradization; universal hard rubber handle, with current interrupter.... \$ 5 00 Handle, without wheel.....





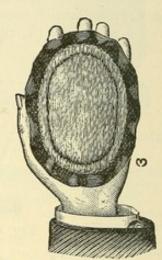


Fig. 5302A — Sponge-covered Electrode, Insulated with Soft Rubber, for general application with hand, \$1 50.

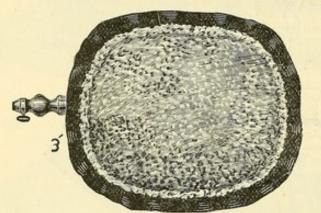


Fig. 5302-Sponge-covered Foot Plate, Insulated on one side with Soft Rubber, to prevent wetting carpet..... \$5 00

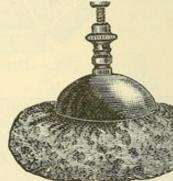


Fig. 5304—Holder for large Sponge, with Universal Handle, \$1 50; without, \$1 00.

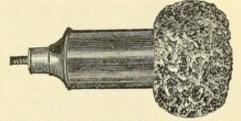


Fig. 5303-Sponge Cup, with Universal handle, \$1 00 without.....



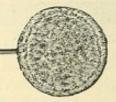
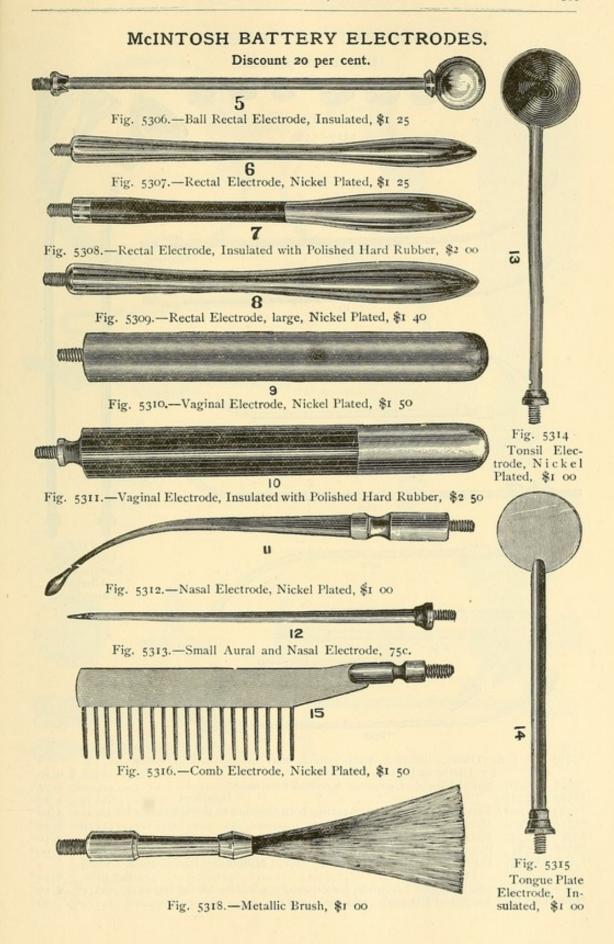
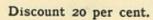


Fig. 5305-Sponge-covered Electrode, with long handle, to be used under the clothing, \$1 50



McINTOSH BATTERY ELECTRODES.



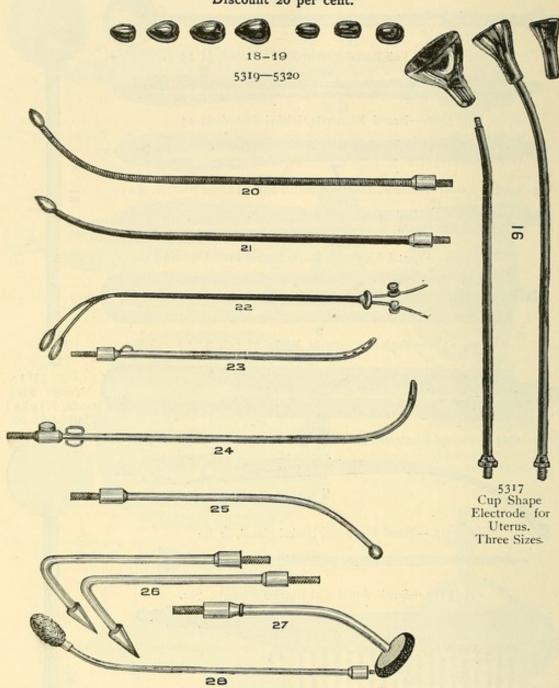
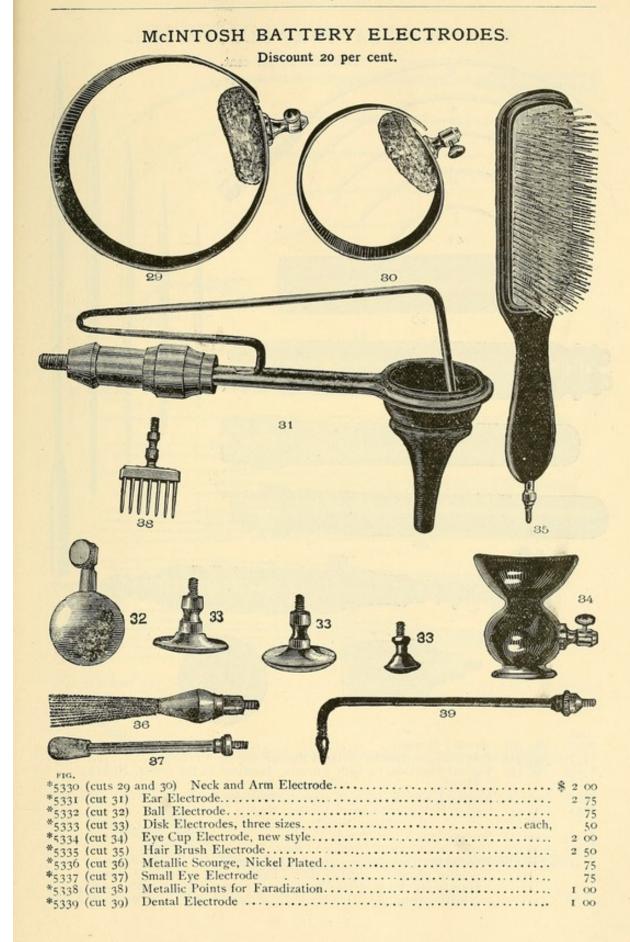
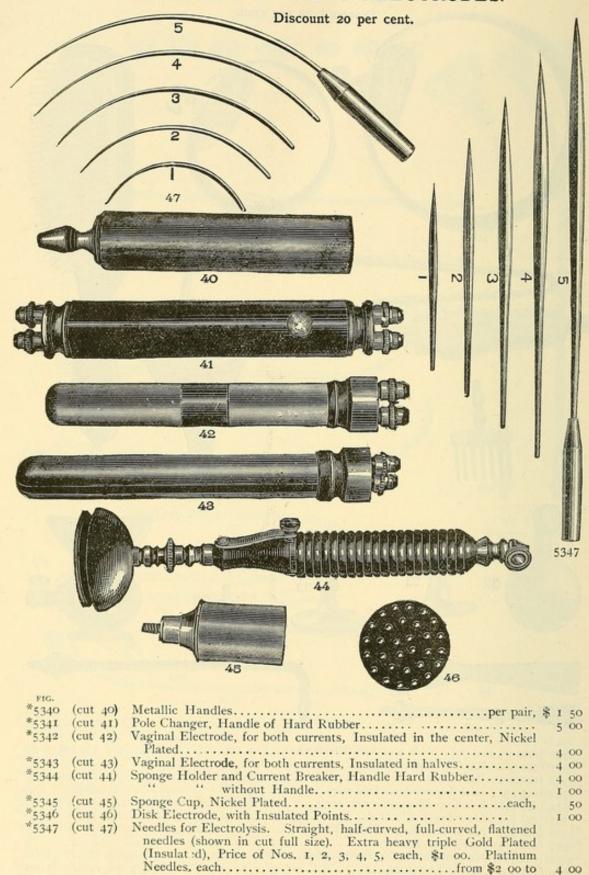


FIG.				
*5310	and 5320	Olives, different sizes, which may be attached to Nos. 20, 21, 22,		
0.0	-	for Uterus or Urethraeach	\$ 0	20
*5321	(cut 20)	Spiral Flexible Uterine or Urethral Electrode	I	25
*5322	(cut 21)	" " " Insulated		25
*5323	(cut 22)	Elastic Electrode, for conveying both currents to the Uterus or Urethra,	3	00
*5324	(cut 23)	Metallic Catheter, Silver	2	50
*5325	(cut 24)	Metallic Catheter, Silver	2	50
*5326	(cut 25)	Laryngeal Electrode, Nickel Plated	I	00
*5327	(cut 26)	Duchenne's Metallic Points, for Muscular Faradization, Gold		
		Platedper pair,	2	50
*5328	(cut 27)	Small Sponge Electrode, for external application to the larynx	I	50
		Laryngeal Electrode, with Sponge Tip		50

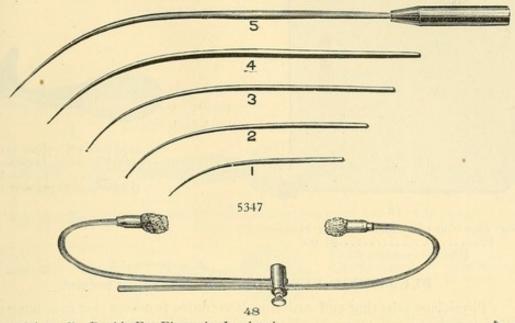


McINTOSH'S BATTERY ELECTRODES.



McINTOSH BATTERY ELECTRODES.

Discount 20 per cent.



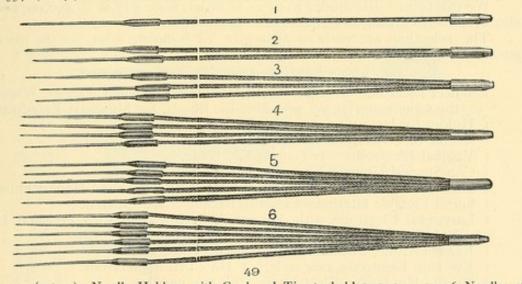


Fig. 5349 (cut 49)—Needle Holders, with Cord and Tips to hold 1, 2, 3, 4, 5 or 6 Needles of any size. Price without Needles, 60c., \$1.00, \$1.25, \$1.50, \$1.75 and \$2.00

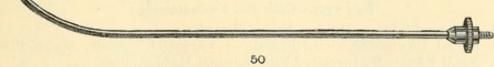


Fig. 5350—Metallic Sound Nickel Plated...... 750

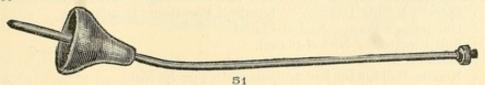
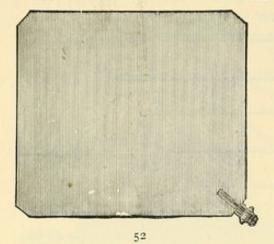
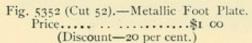


Fig. 5351 (cut 51)—Uterine Electrode, with Cup and Stem, Insulated..... \$2 50

McINTOSH'S and FLEMMING'S BATTERY ELECTRODES.





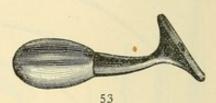


Fig. 5353 (Cut 53).—New Style of Rectal Electrode, Insulated. Price......\$2 50 (Discount—20 per cent.)

FLEMMING'S ELECTRODES .- Discount 20 per cent.

Physicians selecting and ordering Electrodes from our list can have them fitted in velvet-lined morocco cases, at a cost of from \$2.00 to \$5.00 each.

We can furnish Electrodes in cases to order, from \$15.00 to \$50.00, and we also keep the following described cases in stock.

The selections are made so as to give as complete a set for the price as possible.

Fig. 5354.-Electrode Case, No. 1-Containing:

- Wheel Electrode with Universal Handle of Polished Rubber, Wheel of the same material, set with Metallic Points, for Muscular Faradization.
- 1 Holder for large Sponge, Nickel-Plated.
- Rectal Electrode, Insulated with Polished Hard Rubber.
- 1 Vaginal Electrode. 1 Tongue Electrode.
- I Cup-Shaped Uterine Electrode. I Metallic Brush.
- I Uterine or Urethral Electrode, Insulated with Polished Hard Rubber.
- I Spiral Flexible Uterine or Urethral Electrode, Insulated.
- I Laryngeal Electrode, with Sponge Tip, insulated with Polished Hard Rubber.
- 1 Ear Electrode, Insulated with polished Hard Rubber.
- 1 Eye Cup Electrode, new style. 1 Hair Brush Electrode.
- 1 Needle Holder for Electrolysis, with two needles.

Price......\$30 00

Fig. 5355.—Case No. 2—Containing:

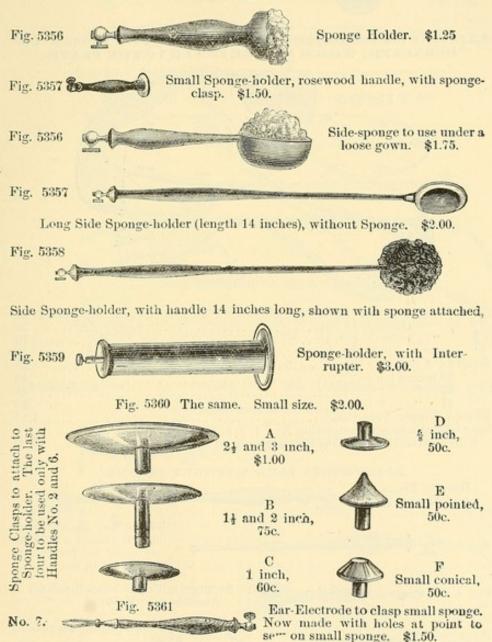
- I Universal Sponge Holder, Nickel-Plated.
- 1 Rectal Electrode, Nickel-Plated. 1 Vaginal Electrode, Nickel-Plated.
- 1 Nasal Electrode, Insulated with polished Hard Rubber.
- I Cup Shaped Uterine Electrode, Insulated with polished Hard Rubber.
- I Spiral Flexible Uterine or Urethral Electrode, Insulated.
- 2 Duchenne's Points, Nickel-Plated.
- 1 Ball Electrode, Nickel-plated.
- 1 Metallic Brush. 1 Disk Electrode.
- I Needle Holder for Electrolysis, with one Needle.

Price......\$15 oc

KIDDER'S EXTRA APPLIANCES FOR ELECTRO-THERAPEUTIC USES

The following are a part, comprehending the more useful Electrodes manufactured by Dr. Kidder, New York:—

SPONGE-HOLDING ELECTRODES.



THE ABOVE PRICES ARE NET.

KIDDER'S EXTRA ELECTRIC APPLIANCES.



Another form of Ear-Electrode. \$3.00.



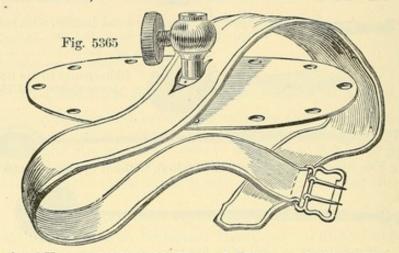
Glass Eye-cup, to be filled with water only, or with sponge. \$1.75.





Metallic Hollow Ball Electrode. 75 cts.

ADJUSTABLE ELECTRODE TO BE USED WITH SPONGE UN-DERNEATH, WHICH MAY BE SEWED TO THE PLATE.

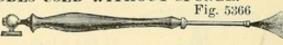


Silver plated Universal Adjustable Electrode Plate, round 4% ins. diameter. \$1.25
" Oblong, 1\(\frac{8}{8} \times 2\frac{8}{4} \cdots \cdots 75
" " $1\frac{7}{4} \times 4\frac{1}{4} \dots$ 75
" " $2\frac{6}{8} \times 3\frac{1}{2}$ 75
Strap for Adjustable Electrode, 19 inches long
" 29 inches long 40
" 37 " " 45
" 47 " " 50
Hinged Copper Foot-Plate 1.25
Case of instruments, comprising Nos. 1, 7, 9, 11, 14, 15, 16 and 18,
with Universal Handle, in neat velvet-lined case

ELECTRODES USED WITHOUT SPONGE.

Metallic Brush for Anæsthesia. \$1.50.

Fig. 5369,





The same, shown with brush pushed within its cylinder for protection when not in use.

Scour

Scourge, with fine tinsel brush for Anæsthesia. \$1.50.

> Insulated Throat Electrode, \$1.50.



Silver-plated Tongue Electrode \$1.50

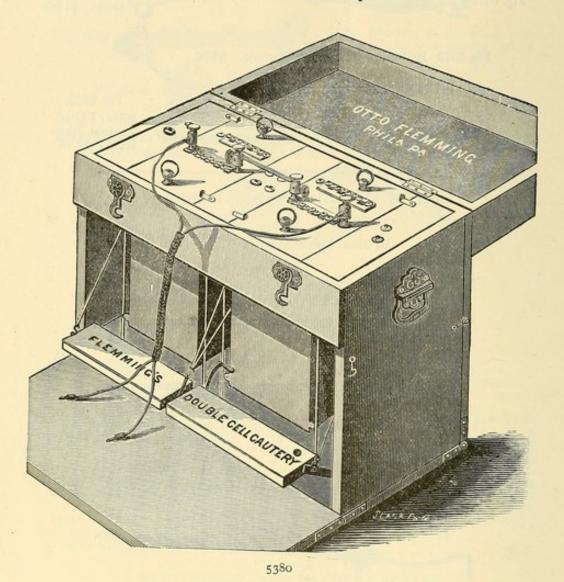
THE ABOVE PRICES ARE NET.

KIDDER'S ELECTRIC APPLIANCES. Silver-plated Rectal Electrode. \$1.50. Uterine Electrode. \$1.50. Fig. 5373 Bell-shaped Uterine Electrode. \$2.00. Fig. 686d. Silver Plated Vaginal Electrode. \$1.75. Silver-plated Urethral Electrode, not insulated. \$1.50. Fig. 5375 Urethral insulated silver-plated Tip. \$1.75. Fig. 5376 Duchenne's Double Vesical Electrode for paralysis of the bladder, and incontinence of urine. Open and closed to apply one or both poles. \$2.50. NEEDLES FOR ELECTROLYSIS TO DISCUSS TUMORS, ETC.

	•											
				PRICE	OF							
Steel N	eedle,	gold-pla	ted, not in	sulated, 2	inche	s long.				\$1.00		
Platina	4.6	not insu	lated, 21 in	ches lon	g					1.50		
Steel		insulated	l and gold	plated, 1	inch	long				1.50		
44	66	44	"	1	7 11	"				1.50		
66	44	66	long poin	t. 24 inc	hes lor	10				1.50		
**	44	44	" "	31 "	44					1.75		
Platina Pointed Needle, insulated, 21 " "												
11	66		ii ii	95 "	11					1.75 2.00		
"	46	**	**				long.			2.50		
m												
			rounded									
to receiv	ve sm	all metall	ic cord wh	ich accor	npanie	es each	one, to	be se	cure	i in a		
screw c	up att	ached to	a large me	tallic cor	d.							
Price of	the l	arge meta	allic cord,	feet lon	or					\$1.00		
**		same cov	ered with I	oure rub	ber.					2.50		
		, 001								2100		
			THE ABO	VE PRIC	ES AR	E NET						

GALVANO CAUTERY BATTERIES.

FLEMMING'S-Discount 20 per cent.

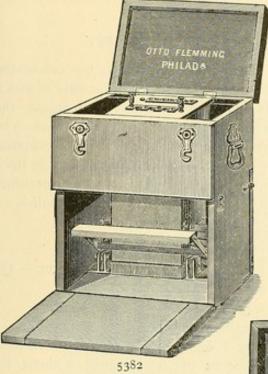


DOUBLE CELL CAUTERY BATTERY.

FOR OFFICE USE.

Consisting	of two systems of 10 pairs zinc carbon plates each, with treadle, two rubber cells and conducting cords.
Fig. 5380.	Price \$50 00
The same,	provided with two Commutators for converting the Cautery into a 20 cell continuous Galvanic Current Battery.
Fig. 5381.	Price\$95 00

GALVANO-CAUTERY BATTERIES AND ELECTRODES.



FLEMMING'S-Discount 20 per cent.

Fig. 5382.—SINGLE CELL CAUTERY BATTERY.

For office use, consisting of one system of Io pairs zinc-carbon plates, and a treadle arrangement, by means of which the rubber cell (containing 3 quarts of bi-chromate solution), is raised or lowered.

Price of Single Cell Cautery Battery, including Conducting Cords...... \$30 00

The same, provided with a Commutator for converting the Cautery into a 10 Cell Continuous Galvanic Current Battery..... 50 00

OTTO FLEMMING PHILA PA.

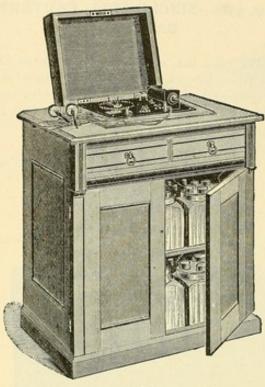
Fig. 5383.-CAUTERY INSTRUMENTS FOR NASO-PHARYNGEAL OPERATIONS.

Price, Complete in Morocco Case	25	00
CONSISTING OF		
The Universal Hard Rubber Handle with Circuit Closer, to which any of the instruments		
below may be attached	5 (00
The short, straight Electrode or Knife, for use in the anterior part of nares	2 (00
The Post-Nasal Electrode, for introduction behind the soft palate	2 (00
The long Knife Electrodes for introduction through the nares to posterior ends of turbin-		
ated bones and pharynx	2 (00
The Spiral or Moxa Electrode	2 (00
The Sharp pointed Electrode	2 (00
Dr. J. Solis-Cohen's Pharyngeal Electrode, to protect the vault of the pharynx	3 5	-
One set of 3 Rubber Nasal Specula	I	
Universal Rubber Handle, with platinum wire loop and windlass (Ecraseur)	10 (Ю

ELECTRIC BATTERIES AND APPARATUS.

McINTOSH-Discount 20 per cent.

Fig. 5384-No. 2.-OFFICE CABINET BATTERY.



5384

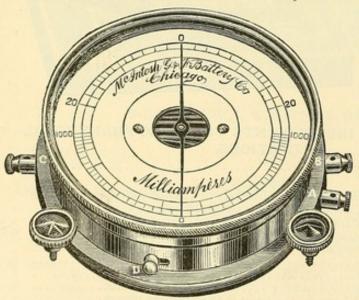
In this Battery we use the celebrated Diamond Carbon Cell, the fluid of which is a solution of muriate of ammonia; the elements are zinc and carbon rods. The cell is perfectly sealed, so that evaporation is impossible, a feature that in itself highly recommends any cell for office purposes. The cell has the following advantages:

- 1. Perfect cleanliness.
- High electromotive force 175 volts.
 - 3. Sealed internal resistance.
 - 4. Great power of recuperation.
- It is a cell that will run for medical purposes many months without the slightest attention.

The switch board has first-class Faradic coil, 25 button double galvanic switch and pole changer.

Price complete, with 30 Diamond Carbon Cells......\$100 00

It is now conceded that the Milliampere-Meter is one of the most import-



ant factors in the treatment of disease by electricity, as with it the exact amount of "dosage" of the current that passes through the patient is determined. This instrument is absolutely correct, as it is graduated by standard measurements, and the greatest care is taken in the manufacture. There are two separate scales: the upper one is graduated from 1/2 to 20, and the lower one from 1 to 1,000 milliamperes, so any range of current can be obtained.

Price.....\$25 oc

GALVANO-CAUTERY BATTERIES AND ELECTRODES.

McINTOSH-Discount 20 per cent.

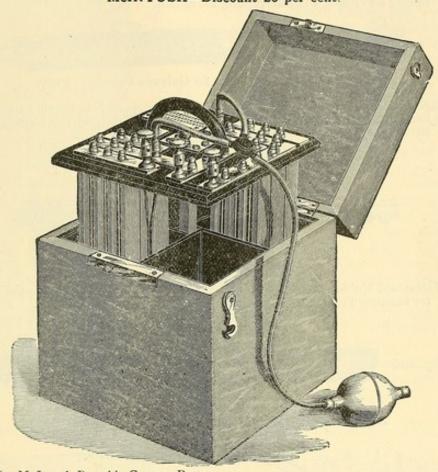
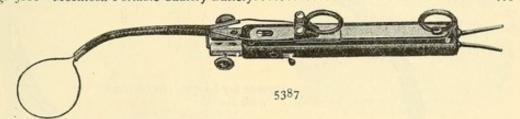
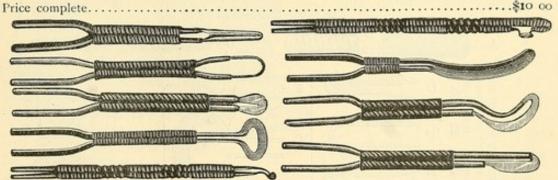


Fig. 5886—McIntosh Portable Cautery Battery......\$75 00



GALVANO-CAUTERY HANDLE WITH ECRASEUR ATTACHMENT.

This represents the Galvano-Cautery Handle arranged for the loop or ecraseur.



Figs. 5388 to 5399—McIntosh's Electrodes...... each \$2 00

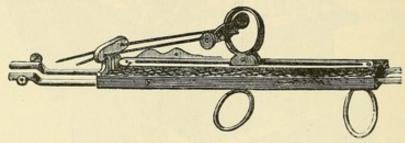
KIDDER'S GALVANO CAUTERY ELECTRODES.

Fig. 5400-Handle for Platinum Knife, Loop and Coil Burners, with Knob and Spring for closing and interrupting the circuit.

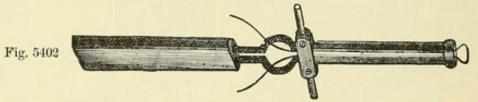


Burners and Cutting Loops for Galvano-Cautery. \$4.00.

Fig. 5401-Handle for Cutting Loop where only one hand is at liberty; the other hand may be employed in holding some instrument, as the laryngeal or aural mirror.



Vulcanized Rubber Handle, with Slide, for drawing incandescent Platina Loop for excising Tumors without bleeding. \$7.00.



Another form of Handle with Platina Cutting Loop. \$4.00.

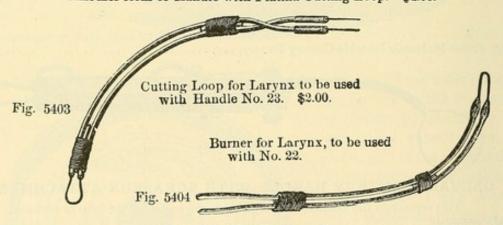
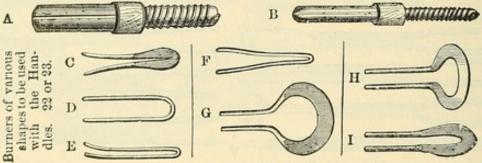
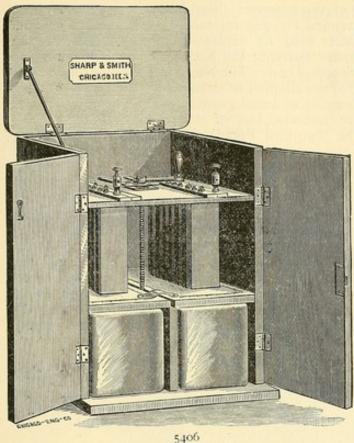


Fig. 5405--Handles to each.



THE ABOVE PRICES ARE NET.

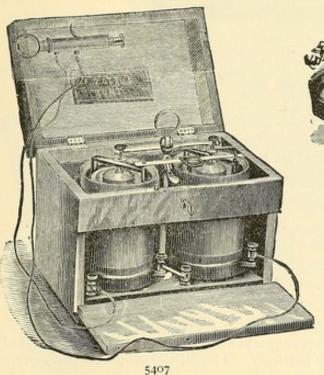
GALVANO CAUTERY BATTERIES, Etc.



This Battery, Fig. 5406, has been before the profession now for several years, and the recent improvements have made it the best and strongest Cautery Battery in the market. There are two large cells, and the elements consist of large zinc and carbon plates, which are depressed by a screw to any desired depth, regulating the strength of the current perfectly. The cells hold a large amount of fluid which requires less frequent changing. The Battery needs very little care. Some of them have been in constant use a number of years. The Battery is inclosed in a neat Black Walnut case, 12X15X22 inches high.

For Electrodes for "Ingals'" Cautery Battery, see page 445.

Fig. 5406.—Ingals' Cautery Battery......Net, \$50 00





5408

Fig. 5408.—Beach's Electric Sponge Belt.

PATIENTS' PRICES.

No.	1\$	3	00
No.	2	5	00
No.	3	8	00
No.	4, Head Band	5	00
No.	5, with Suspensory,	10	00

Fig. 5407.—Drescher's Cautery Battery......Net, \$20 00

BARRETT'S DRY CELL BATTERIES.

Note.—In ordering any of the batteries listed below it might be noted that the Nos. I and 2 are intended for general medical use, and are capable of treating every case, no matter what its nature—from those requiring the mildest to the strongest galvanic current; the No. 2, of course, having the additional advantage of the induction coil. The No. 3 batteries, however, containing a small number of cells, are adapted to treatment of cases needing a mild current, and to the electrolyses of small growths. They have full power for the work for which they are intended, but of course will not embrace so wide a field as the others. The Two-Cell Faradic No. 5 needs only a passing notice, as its power is equal to any case, and will create the most delicate as well as a most intense current.

Each and every metal part of the following apparatus and electrodes is most carefully polished and nickel-plated, and each will be found even in the smallest detail, made and finished in the very best manner, and second to none in respect to every quality that goes to make up a first-class instrument.

No. 1.-GALVANIC BATTERY.

This is a constant-current Battery, designed especially for physicians' use. It is put up in a very handsome, light, hardwood box, 6 x 7 x 10 inches. Metal parts are all finely finished and nickel-plated, and each is provided with a hard rubber switch-board for making and breaking the current and changing the poles; a water rheostat, one plain and one interrupting handle, conducting cords and best quality sponge electrodes.

Ratterie	ac of	con	no	et.	1	0	TI	rit	h	fo	THE	or	 	m	0	ro	-	a	lle	m	20	10	0	or	dor .	at ch	O.r.	+ 172	otico	
5413																														
5412																														
*5411																										65	,			
5410																														
5409																														

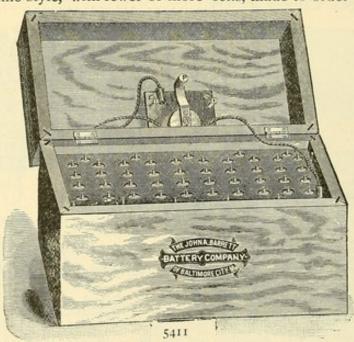


Fig. 5411.—50-Cell (No. 1) Galvanic Battery.—Case open, ready for work.

The capacity of these Batteries is 720 hours of actual work. The cost of operating the 50-Cell is 2½ cents per hour. The others proportionately more or less, according to number of cells.

Charge for Renewing and Restoring, per cell, 30 cents.

BARRETT'S DRY CELL BATTERIES.

Fig. 5416.-No. 2.-COMBINATION BATTERY.

This Combination Battery, so far as the galvanic part is concerned, is precisely the same in every particular as the No. 1 preceding, but it contains in same box a Compact Faradic Coil and Cell, capable of producing the most delicate as well as the most intense and powerful induction current.

FIG.				
5414	24	ell	\$58	oo Net.
5415	32	·	65	00 "
*5416	50	·	85	00 "

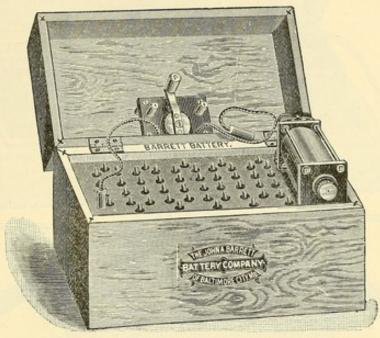


Fig. 5416-No. 2.

The galvanic part of these Combination Batteries will work 720 hours continuously. The Faradic Cells have a capacity of 100 hours.

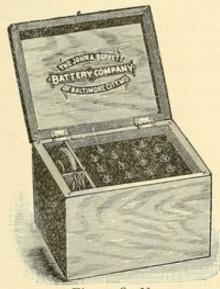


Fig. 5418-No. 3.

Fig. 5418.—No. 3.—GALVANIC BATTERY.

This is a smaller and less complete constant-current Battery than the No. 1, and is intended for family as well as physicians' use, for electrolysis of small growths, hairs, etc.; in general, for the treatment of cases which do not need, or could not stand, a very powerful current. Put up in strong, well-finished walnut boxes, with conducting cords and sponge electrodes.

FIG. 5417	6	Cell-	—siz	e 4 !	2×4	1/2×5	 810	00	Net.
*5418									
5419	16	"	_ "	53	2X5	1/2 X 5	 20	00	44

BARRETT'S DRY CELL BATTERIES.



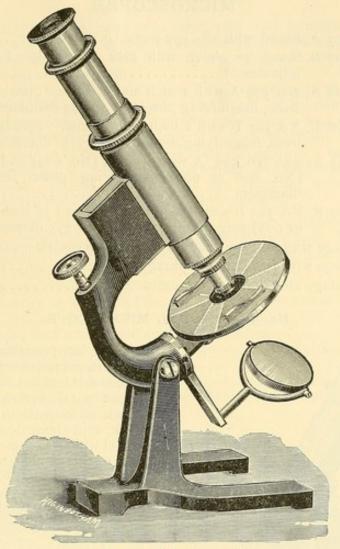
Fig. 5420.-No. 7.-POCKET FARADIC BATTERY.

This instrument is designed for the use of families as well as physicians, and is extremely handy, compact, durable and simple, in its mechanism. It is put up in a handsome hardwood box—8½ inches long by 4½ inches wide, and two inches deep—and furnished with a pair of conducting cords, one pair ebonite handles, and one pair hollow metal electrodes. The induction coil, giving three currents,—primary, secondary and combined,—is of superior make and finish, and has no equal anywhere in the uniformity and smoothness of its current.

The cells of this Battery will work 100 hours continuously, and cost 1½ cents per hour to operate. Each cell is secured in position on floor of its box by a vertical pin passing through it, and held there by the large set screw shown in cut.

Price of Battery complete\$	10	00	Net.
Charge for renewing and restoring cell-block	I	50	46

In this Battery we have met the want which every physician recognizes—an instrument of the type commonly known as the Pocket Battery—of beautiful finish, and low price, with every quality satisfactory to the user, and with all the trouble and nastiness of the wet cell entirely banished. This Battery is a genuine triumph in this direction, combining perfection in every detail, together with a permanently closed Dry Cell, which, in the use of the Battery, does not have to be touched or treated in any way. To set the Battery in operation, open the cover and turn the switch; closing the cover breaks the circuit. We are sure these points will appeal to the experience of every one who has used, or desires to use, a Pocket Battery.



(Cut one-third of actual size.)

Fig. 5450.-No. 505-A.-BAUSCH & LOMB'S STUDENT MICROSCOPE.

This Microscope is the result of an effort to reach the utmost efficiency and simplicity at an exceedingly low price. Everything pertaining to it is well made and finished, and we feel sure will fill a popular demand.

In order to make up a complete low-priced outfit, we have given special attention to the optical parts, and as a result have devised two "Special" objectives, I inch 15° and ¼ inch 65°, which, although low priced, may be relied upon as giving as good results as can be obtained with such angular aperture. They are perfectly achromatic, with penetration and good resolving power, the ¼ showing the lines on P. Angulatum, while it has very long working distance. Where price, however, is not the principal consideration, we would invariably recommend the selection of our higher grade objectives.

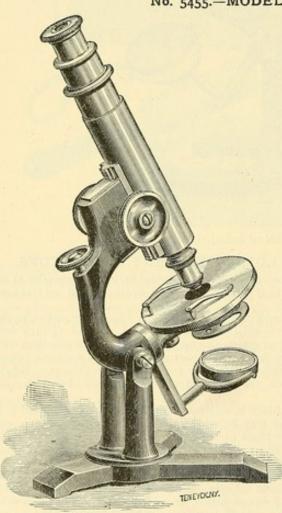
The stage has spring clips; on its lower surface is attached a revolving diaphragm, and it is also provided with a screw, to which a sub-stage may be attached. The mirror is concave and is attached to a bar, the axis of which lies in the plane of the stage, so that illumination may be brought on the object from any point below or above the stage. The mirror-bar is also provided with sliding adjustment for mirror, so that proper illumination of the object may be obtained.

In No. 505-A the coarse adjustment is by sliding tube in cloth-lined sleeve. No. 505-B has a well made and delicate rack and pinion for coarse adjustment. The fine adjustment in both instruments is by delicate micrometer screw acting on our patent fine adjustment. The main tube has cloth lining, and is provided with draw tube, by which means standard optical tube-length may be used.

See following page for prices of above.

FIG.		NET	
*5451	No. 505 A, Stand with one eye-piece, in cherry case	\$16	00
*5451	No. 505 B, Stand as above with rack and pinion for coarse adjustment	23	00
*5451	No. 506 A, No. 505 A with 1 inch and 1/4 inch "Special" objectives; magnifying power 80 to 375 diameters	30	00
*5451	No. 506 B, No. 505 B with 1 inch and 1/4 inch "Special" objectives, magnifying power, 80 to 375 diameters		
*5451	No. 507 A, with No. 505 A with 1 inch (No. 604) and 1/4 inch (No. 608 or 609) magnifying power, 80 to 375 diameters	38	00
*5451	No. 507 B, No. 505 B with 1 inch (No. 604) and 1/4 inch (No. 608 or 609) magnifying power, 80 to 375 diameters	43	00
5452	Sub-stage ring, to receive any sub-stage accessories, extra	I	00
5453	Sub-stage with revolving diaphragm, extra	2	00
5454	Glass stage and slide carrier, extra	5	00

No. 5455.-MODEL MICROSCOPE.



(Cut one-third actual size). Fig. 5455—No. 520.→Bausch & Lomb's Model Microscope.

We have constructed this microscope in compliance with a generally expressed demand for a simple, low-priced and well-made instrument, which is adapted to every grade of work, and claim that in it we have a model which possesses, in an eminent degree, these qualities. It is of chaste design, its parts are all calculated to bear the strain of every day work, and on this account, and because of its simplicity, it may be used by inexperienced hands without detriment or injury to it.

This microscope especially recommends itself by requiring a smaller pecuniary outlay than any of similar construction, and may be supplied with valuable additions, such as our revolving and glass stages, mirror bar with adjustable mirror and sub-stage, all of which greatly increase the efficiency, and add but little to the price of the instrument.

The tripod base, pillars and arm, are neatly japanned; the axis is arranged with strong bearings to allow inclination of the body to any angle. Coarse adjustment is by perfect rack and pinion, provided with tightening screws; fine adjustment by a delicate micrometer screw, acting on our patent movement.

The stage is of brass, circular in form, very thin to allow great obliquity, but of sufficient strength to be firm under manipulation, with detachable spring clips. Attached to its lower side is a sub-stage ring and revolving diaphragm,

both of which may be removed.

The main tube has a draw tube, which is provided with the society screw to receive low power objectives, amplifier or analyzer of polariscope. Plane and concave mirrors are adjustable on the mirror bar, which is a feature possessed by few low-priced instruments, although it is of considerable importance, from the fact that a change in the distance of the light requires a corresponding adjustment of the mirrors. The mirror bar swings on a large bearing (the axis of which lies in the plane of the stage) to any obliquity below and above the stage, the latter for the illumination of opaque objects.

Fig. 5455, No. 520. Stand, with any of our Huyghenian eye-pieces,		
in upright polished case, with handle and lock, drawer		
for accessories, and receptacles for eye-pieces and		
objectives\$25	00 1	net.
Fig. 5455, No. 521. The above with two objectives, 1 inch, (No.		
604), and ¼ inch (No. 608 or 609), and camera lucida,		
pliers, slides and covers 45	00	
Revolving stage, with removable spring clips, extra 5	00-	66
Improved glass stage with slide carrier, which slips over either plain		
or revolving stages, extra 5	00	66
Graduated mirror bar, with mirror and sub-stage (both adjustable)		
same as that used on Investigator, in place of that ac-		
companying stand, extra 5	00	"

Fig. 5456-No. 530.-PHYSICIANS' MICROSCOPE.

This instrument has enjoyed a popularity since its first introduction. It has from time to time been improved, and within a year has been entirely remodeled, although its original features are all retained. Under all these improvements it has remained at the same price, and even now, although considerably more valuable than formerly, we have decided to make no change. We believe that we are therefore in a position to claim that no instrument of equal efficiency is offered for the price. It is firm, compact, and will give the various adjustments, and will permit the use of such accessories as modern examinations require.

The base is japanned and of neat design. Pillar and arm of bronze, connected by a well fitting joint, for inclination of the body to any angle. Coarse adjustment is by rack and pinion, giving a long range; fine adjustment by micrometer screw acting on our patent movement; main tube has drawn tube

provided with society screw.

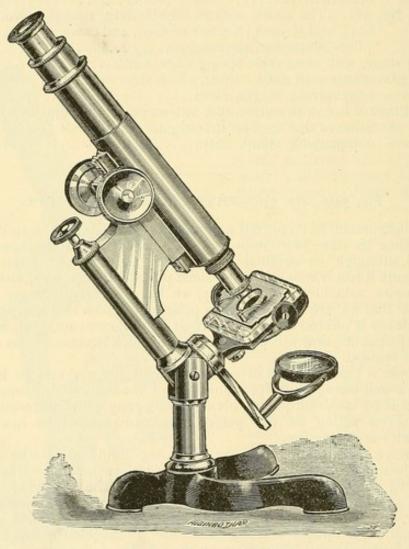
The stage consists of our *square glass* stage and slide carrier attached to a firm projecting fork, to which is also attached the sub-stage. The latter may be centered or entirely removed, and receives the revolving diaphragm and accessories. The plane and concave mirrors are adjustable on the mirror bar, and this swings to any obliquity below the stage and above it for the illumination of opaque objects, on a center in the plane of the slide carrier.

We furnish with this instrument, at the choice of the purchaser, either the base described above or the brass base of the Harvard microscope; unless espe-

cially mentioned however, we always send the japanned base.

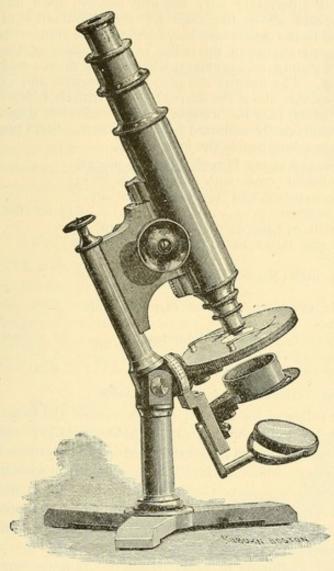
PHYSICIAN'S MICROSCOPE.

FIG. No. 530-Stand with any of our Huyghenian eye-pieces, in 5456 upright polished case, with handle and lock, drawer for accessories, and receptacles for eyepieces and objectives......\$40 00 Net. The above with eye-pieces A (No. 700) and C (No. 702), the latter arranged with slot for micrometer. Objectives 3 inch (No. 605), and 1 inch (No. 610 or 611). Camera lucida, eye-piece micrometer, pliers, 5456 No. 531 slides and covers. Magnifying powers, with tube at full length, The above, when double nose-piece is ordered with it, extra..... 5 00



(Cut one-third actual size).

Fig. 5456-No. 530-Bausch & Lomb's Physician's Microscope.



(CUT ONE-THIRD ACTUAL SIZE).

Fig. 5457.—No. 540.—Bausch & Lomb Investigator joint, which allows inclination Microscope.

of the body to any angle: rack

Fig. 5457.—No. 540.—INVES-TIGATOR MICROSCOPE.

In this stand we confidently claim to have reached a higher degree of perfection than is possessed by any other approximating it in price. It combines, in a moderate-priced instrument, the features of a first class and high priced stand, at no sacrifice of its working qualities. The different parts are ingeniously combined, are firm and strong, and in the parts subject to friction we have introduced, as much as possible new compensating bearings, which enable the instrument to endure any amount of work and still retain smooth and reliable movements. Working microscopists will understand the value of this quality. When contracted, it stands but eleven inches high, but can be extended to eighteen inches.

The base is of brass, and has the tripod form; pillar and arm of brass, connected by a solid joint, which allows inclination of the body to any angle; rack

and pinion for coarse adjustment, fine adjustment by our patent frictionless motion; main tube with two draw-tubes, which is an entirely new feature in microscopes and is an unquestionable improvement. It permits the use of standard length of tube for quick adjustment in outside tube, same as in instruments without rack and pinion adjustment; the same for any low power objective and the use of amplifier in either combination. The outside tube has a broad gauge screw, and adapter with society screw. The stage lies in the same plane as center of movement for mirror, is of brass and has concentric, revolving motion with removable clips. It is thin to allow great obliquity, and as it rests upon a strong projecting arm, is perfectly firm under any manipulation.

CONTINUED ON FOLLOWING PAGE.

The mirror bar swings with a perfectly easy but firm motion, upon one bearing to any obliquity below, and above the stage for the illumination of opaque objects, and has affixed to it a secondary bar, to which the mirror is attached, and which allows the separate use of the latter in any position of the sub-stage. It is provided with a sliding arrangement, whereby the mirror may be moved to and from the object. The mirrors are plane and concave, and of large size. The sub-stage is adjustable along the mirror bar and entirely removable. It contains a diaphragm which may be brought directly under the stage. The ring is of standard size, and is easily centered by a set screw. Steel pin for centering stage and sub-stage accompanies the instrument.

Fig. 5458. No. 545.-UNIVERSAL MICROSCOPE.

In this instrument we have followed the general construction of the Investigator, as this has proved exceedingly popular. It is however larger and heavier, with a number of new features which are enumerated in the description. The various compensating bearings which obviate friction and retain smooth movements under the most severe usage, have also been applied to it. It was made in answer to a popular demand, is elegant in design, and of the best possible work and finish. It is, as its name implies, an instrument which is universal in its application to all microscopic work.

The base is of a tripod form, and made of brass; it has on its lower surface three soft rubber pads, and is sufficiently heavy to sustain the instrument firmly at any inclination of the body. The brass pillar is large and heavy, and connected by joint for inclination of the arm. The coarse adjustment is by rack and pinion and of sufficient range to admit of the use of the lowest power objectives; the fine adjustment is by micrometer screw acting on our patent frictionless motion. The main tube has two draw tubes, by which a considerable range in length may be attained; they may be contracted to less than the standard, to decrease the height of the instrument when used in an upright position, and may be extended beyond it to increase the magnifying power; both draw tubes have society screw, and the main tube has broad gauge screw and adapter for society screw. The stage has concentric revolving motion with removable spring clips, and its upper surface lies in the same plane as center of mirror bar movement and joint for inclination; it is thin to allow the greatest obliquity, but firm under any manipulation.

The mirror and sub-stage bars move independent of one another or together, and while the mirror bar swings to allow the use of the mirror at any possible angle below or above the stage, the sub-stage bar revolves completely around it and may be placed between the stage and the arm, where various illuminating accessories may be used; in this position the sub-stage may also be entirely removed, which leaves the mirror alone in its relative position to the stage; the mirrors are of large size, and both these and the sub-stage are adjustable on their respective bars; the circular bearings of these are large, and are graduated to degrees and silvered. A steel pin for centering stage and substage accompanies the instrument.

Fig. 5458-No. 545.

Stand, with any of our Huyghenian eye-pieces, in polished case, with handle and lock, drawer for accessories and receptacles for eye-pieces and objectives, net, \$55 oo.

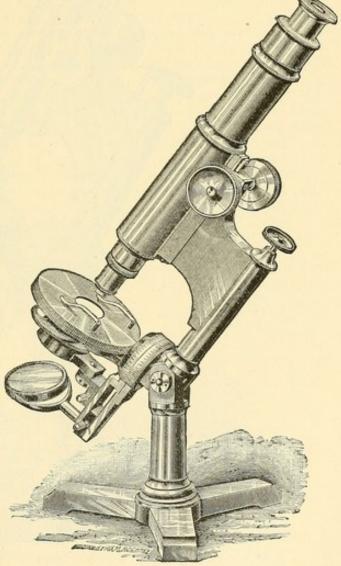
Fig. 5458-No. 546.

The above with eye-pieces A (No. 700), and C (No. 702), the latter with slot for micrometer. Objectives \(\frac{3}{4} \) inch (No. 605), and \(\frac{1}{6} \) (No. 610 or 611). Camera lucida, eye-pieces, micrometer, pliers, slides and covers. Magnifying powers, 35 to 600 diameters, net, \\$80 oo.

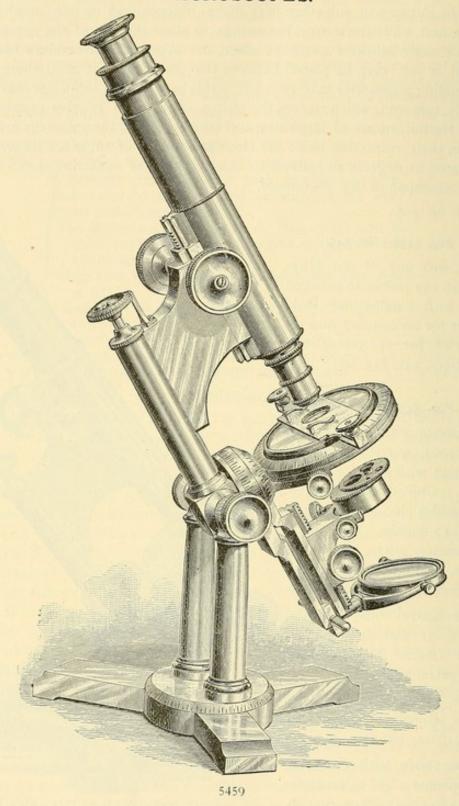
The above with improved glass stage and slide carrier, which fastens to the brass stage extra, net, \$5 oo.

The above with rack and pinion adjustment to the substage, extra, net, \$15 oo.

The above with centering adjustments by micrometer screws to either stage or substage, extra for each, net, \$15 oo.



(CUT ONE-THIRD ACTUAL SIZE.)
Fig. 5458. No. 545.—Bausch & Lomb
Universal Microscope.



(Cut one-third actual size.)

Fig. 5459.—No. 560. Bausch & Lomb Professional Microscope.

Fig. 5459.-No. 560.-PROFESSIONAL MICROSCOPE.

The design of this instrument is the result of studies covering a long period, and possesses all the features which our experience and knowledge of the wants of the public have been able to suggest. It is chaste and elaborate in all its details, and possesses a number of new features which enhance its value and which we believe entitle us to the claim that it is superior to any instrument

designed for the same purpose.

It is constructed entirely of brass and stands about 18 inches high, when ordinarily in use. The upper part of one pillar is graduated and forms a valuable index for the point of illumination, when the body must be brought to the upright position, in changing immersion objectives. The coarse adjustment is by rack and pinion, the latter having specially large milled heads; the fine adjustment, by our patent frictionless motion; the milled head of the micrometer screw is graduated. The main tube has draw-tube and is provided with adapter having society screw; it has the same diameter as the sub-

stage, and thus permits the use of eye-pieces as condensers.

The mirror and sub-stage bar are separate and move independent of one another. Their axis, as well as the axis for inclination, are in the plane of the stage, so that when the body is inclined to the horizontal position, the center of the stage is in the axis of all the revolving parts. Both bars move freely in a circle around the stage and above it as far as the arm, and are provided with large graduated circles reading to degrees. They are arranged with stops which act when they are in line with the body, and move simultaneously when the arm on the mirror is placed in a recess in the sub-stage bar provided for it. The mirrors are plane and concave, of large size, and are adjustable along the mirror-bar, two milled heads being provided for convenience. The mirror frame may be replaced by a candle holder, for measuring the angular aperture of objectives. The sub-stage is of standard size, and is supplied with our patent Iris diaphragm; its distance from the object may be varied by rack and pinion movement, and may be entirely removed. It is provided with new centering adjustment.

The stage is 4½ inches in diameter and is graduated to degrees on its beveled edge. It revolves upon a strong ring, which in turn is firmly held by a projecting arm. Three steel springs give it tension and insure its durability. These springs are arranged with slots, by which, after they are withdrawn from their recess, the stage may be removed. It is as thin as is consistent with firmness to allow great obliquity. The glass stage and slide-carrier is attached by a bayonet catch after removing the stage-plate. The centering adjustment of the stage as well as the sub-stage is effected by a new device which overcomes the difficulties of the methods hitherto used. Two screws, acted upon by two milled heads, promptly carry the stage to any point, where it is firm without

requiring the use of binding screws.

This instrument is furnished in polished case, with drawer, receptacles for eye-pieces and objectives, handle, lock and key.

Fig. 5459, No. 560 Stand, with any two of our Huyghenian eye-pieces \$135 00 (Stand, with eye-pieces A (No. 700), B (No. 701), C (No. 702), D (No. 703) either of the latter two

with slot for micrometer.

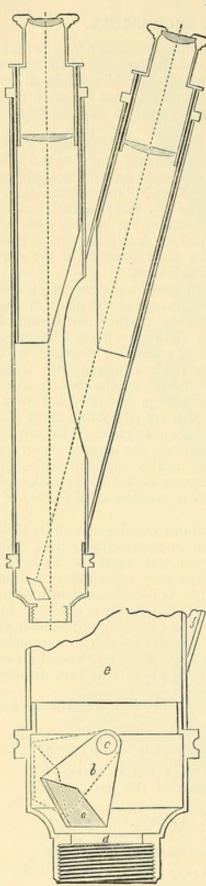
Fig. 5459, No. 561 Objectives 2 inch (No. 602), 3/4 (No. 605), 1/6 (No. 610 or 611), 1/8 (No. 612).

BINOCULAR MICROSCOPES.

(PATENTED FEB. 12, 1884)

The purpose of the binocular microscope is to give a stereoscopic vision of objects whereby their form, relative distance and position of the various parts are most plainly seen. The effect is striking and is so totally different from the image in the monocular, that it can only be fully appreciated after it has been observed. Different methods for accomplishing the same purpose have been used, but the one in most general use is that devised by Mr. Wenham; by this plan the rays coming from the objective are equally divided, one-half of them passing through the vertical tube without alteration, while the other half is reflected by the interposing prism, thus giving almost equally illuminated field in both eye-pieces. The prism is mounted in a sliding box which is fitted to the nose-piece, and by which it may be put in its proper position or partially withdrawn. The great advantage of this system is that the instrument may be used as a monocular by withdrawing the prism; but in this respect it is open to serious criticism, especially of late years, in that the size of the prism and its mountings are limited by the internal diameter of the nose-piece and so decreases the opening for the passage of rays, that many of the advantages of good objectives have been lost. Provision has lately been made to remove the nose-piece altogether when used as a monocular, and replace it with one which is free from obstruction; this however consumes time, and is not always practical.

For some time it has been our purpose to obviate these difficulties, and we have succeeded in devising a number of improvements of which we have adopted the one described below; it is at once the most simple and effective. It is contained in the nose-piece which is attached to the tube; the prism, instead of being mounted in a sliding box, is fixed in a swing carriage, b of which the axis is in c. The carriage b is fixed to the steel spindle c, which in turn passes through a sleeve in the nose-piece, and is provided with a milled head,



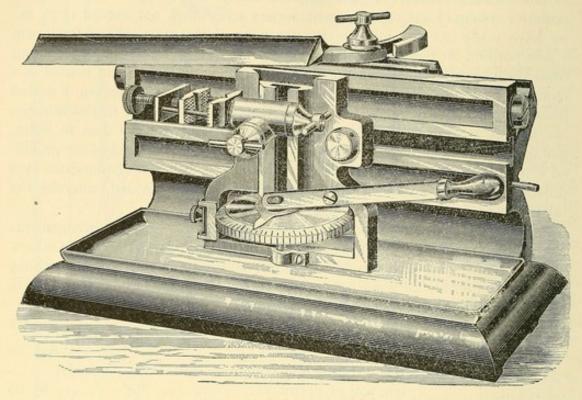
by which it is turned; the spindle and sleeve are arranged with stop-pin to limit the motion of the prism; e is the vertical, and f the oblique tube. As the posterior system of any objective with society screw does not exceed 15 m. m., we have made the opening d in the nosepiece of this size. When the prism a is in position for binocular vision, as shown in full lines, all the rays coming from the objective will be utilized, whereas when the instrument is used as a monocular and the prism is swung to the side of the tube, as shown in dotted lines, the opening d is left without obstruction. In addition to this advantage, the fittings are all close, so that there is no opportunity for the dust to enter, and being cylindrical, there is practically no wear. The draw-tubes are provided with adjustment which works them simultaneously, and accommodates eyes different distances apart. A tightening screw is also provided, whereby the tubes may be fixed at any point at which they are set.

Beside the above advantages, this form of binocular and the arrangements of the prism permit the use of higher power objectives than is the case in others. Thus a ¼ inch objective gives an excellent stereoscopic effect, while a ½ may be made to do so, with some practice. This is of considerable importance in all cases where the above powers are required.

FIG.	Ma	zao D	Model Stand with binecular body, one pair of ane	
5455	NO.	520 B	Model Stand, with binocular body, one pair of eye- pieces\$45 oo	
5455	**	521 B	Model Microscope complete, with binocular body,	
			one pair of eyepieces	
5456	44	530 B	Physician's Stand, with binocular body, one pair of eyepieces 60 00	
5456	**	531 B	Physician's Microscope complete, with binocular body, two pairs of eyepieces 90 00	
5457	**	540 B	Investigator Stand, with binocular body, one pair of	
			eyepieces	
5457	44	541 B	Investigator Microscope complete, with binocular	
			body, two pairs of eyepieces 95 00	
5458	4.6	545 B	Universal Stand, with binocular body, one pair of eyepieces	
5458	44	546 B	Universal Microscope complete, with binocular	
343~		34-	body, two pairs of eyepieces	
		550 B	American Concentric Stand, with binocular body,	
			one pair of eyepieces	
		551 B	American Concentric Microscope complete, with	
			binocular body, two pairs of eyepieces145 oo	
5459	**	560 B	Professional Stand, with binocular body, adjust-	
			ment by rack and pinion, one pair of eyepieces175 oo	
5459	"	561 B	Professional Microscope complete, with binocular	
			body, adjustment by rack and pinion, two pairs of	
			eyepieces, and extra C. and D., one arranged with	
			micrometer	
100	-			

Send for our Pamphlet describing Objectives and Eyepieces, and Microscopes in general.

MICROSCOPIC DISSECTING INSTRUMENTS.



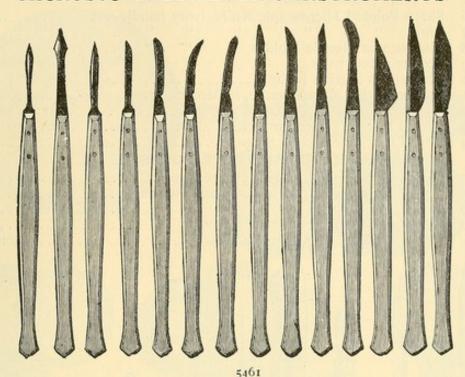
(Pat. September 8, 1885.)

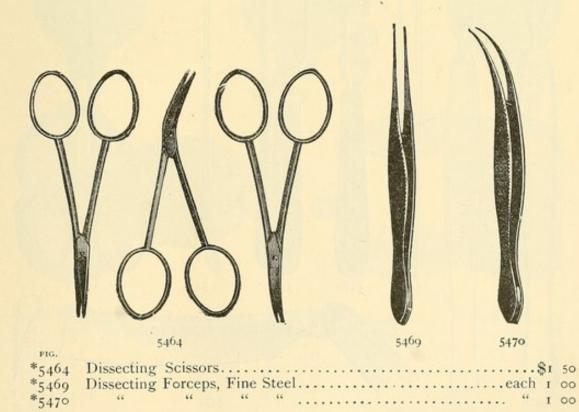
Fig. 5460.-No. 1243.-LABORATORY MICROTOME.

No.	1243	Laboratory Microtome, small, without knife, as described §	32	50
"	1244	Knife for same, in morocco case	8	00
66	1245	Both, when taken together	40	00
•		Laboratory Microtome, large, without knife, as described		
**	1247	Knife for same, in morocco case	10	00
44		Both, when taken together		
		Polished Case, with lock and key, strap for carrying, and		
		removable cover, for either size, extra	2	50

Improvements in the methods of cutting accurate and reliable sections have, for a long time, engaged the attention of workers and manufacturers, and of late a fresh impetus has been given the subject in the new principles which are involved in those recently constructed at several prominent seats of learning in Europe. They have been made of various forms, and great ingenuity and skill have been shown in their construction. Our first endeavor in this direction was the independent construction of an instrument which has now been generally adopted, and which forms the basis of our present form. At an early date it was, however, noticed that it was open to a number of serious objections. Since then we have given the subject considerable study, and with the assistance of several prominent histologists, we have succeeded in perfecting an instrument which combines the approved advantages of the various styles, and possesses new and important improvements not contained in others. A large number are now in use.

MICROSCOPIC DISSECTING INSTRUMENTS.

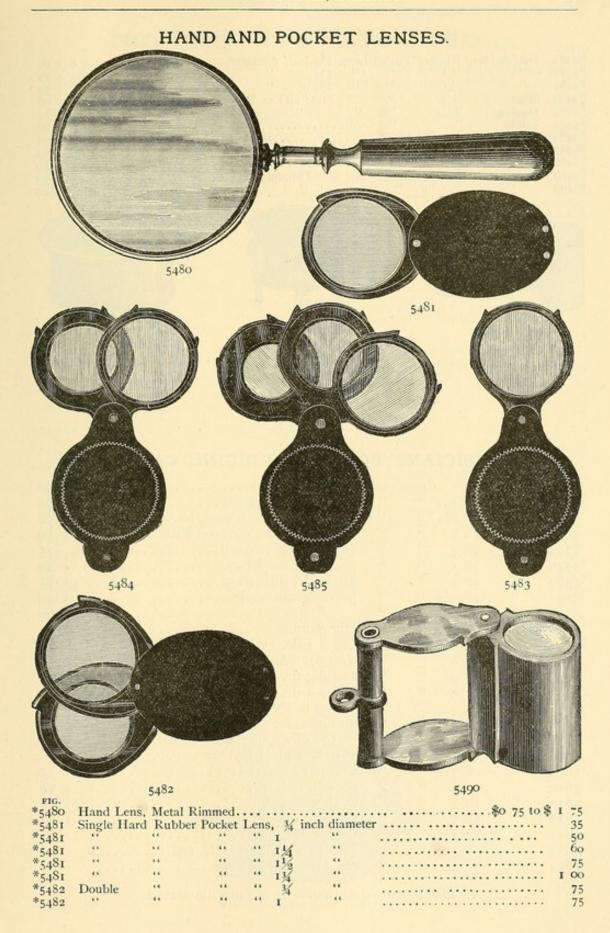




5466 5467

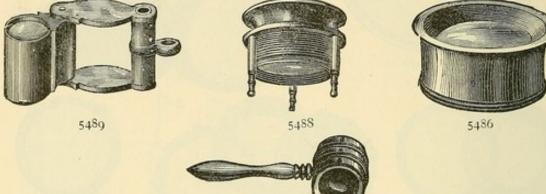
	MICROSCOPIC DISSECTING INSTRUMENTS.	
*5466	Sharp Pointed Microscopic Knife, ivory handle \$ 1	00
*5467	Blunt " " " " " 1	00
*5468	The state of the s	00
*5469	See preceding page.	
*547° *5471	Valentine's Section Knife	00
*5471		3 25
*5472	Microscopic Section Razors\$1 50 to	3 00
*5473	Nickel Plated Trowel or Lifter	75
*5474		1 10
2322	SLIDES AND COVER GLASSES.	
5475	Glass Slides, ground edges, 3x1, per gross	75
5476	" Covers No. 2 (circles), 34 inch, per oz	1 25
5477 5478		1 25
5479	Boyes for holding as glass slides each	10
3419	boxes for holding 25 glass slides	10
A		
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	Fig. Street, II.	
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1		1
		1

5472



HAND AND POCKET LENSES.

FIG.														
*5482	Double	Hard Rubber	Pocket	Lens,	114 inch	dian	neter					. 8	1 (00
*5482	**	- 11	44	44	11%	11								
*5482	66	- 66	11	44	T32	66								
*5483	Single	44	11	66	1/4		172.						1 5	90
		**	**	**	same siz	e as	rig.	5481		from \$	0 50	to	I	00
*5484	Double				44			5482		**	60	to	1 2	25
*5485	Triple	**	4.6								T Co	to	T :	:0
*5486	Round	Metal Frame I	ens								1 50	to		
*5487	Metal E	rame and Han	dle Ler	ne							1 50	10	2 2	200
*5488	Long	th Ctand	the Lei	13							75	to	1 (
	Lens wi	th Stand					,							50
*5489	Codding	gton Lens, 1/2	inch F	ocus, I	Metal Mo	unted							1 4	50
*5490	"	" I	**	**	44								2 0	-
													-	-
	-			,	THE NAME OF THE OWNER,	The same of				-	-			
-	The same			6	The same		1		60	September 1			20	
9	400	The same of the sa		6			7		(1)		The same)	1



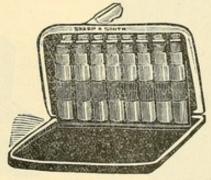
5487

PHYSICIANS' POCKET MEDICINE CASES.

FIG.								
5528	contains	20	2 (vials,	Morocco strap\$	I	50
5529	44	4	21/2	"	***	for the vest pocket		60
5536	66	18	21/2	**	66	two rows of vials, upright	1	50
5537	44	20	2	66	"	wooden frame, covered with Morocco.		50
5544	66	16	2	- 66	66	russet leather, strap		75
*5549	66	16	11/2	"	66	portmonnaie strap	1	30
*5589	44	20		"	66	Morocco, gilt, strap		85
5591	"		11/2	66	44	portmonnaie style		50
5594	44	24		"	44	* " "		60
*5600	- 44	24		66	66	gilt numbers		85
*5601	"		21/2	"	"	and 8 4-dr. vials, best Turkey Morocco		60
5602	44	20		**	66	wrapper case		50
5603	66	12		66	**	and 8 4-dr. vials, wrapper case		85
5604	"	10		"	44	and 7 4-dr. vials, and 2 1 ounce glass		-3
34						top bottles, upright case	2	25
5605	**	8	3	"	66	on one side, and 2 pockets for powders	-	-5
2003			3			the other side, best Russia leather	2	60
5606	44	16	2	"	66	of best Russia leather		00
5609	"	6		"		wrapper case, red		15
	46	20		"	66	cowed red		
5610	44			"	66	sewed, red		50
5611		10	3			wrapper case, red		30
5612	44	12	3	**	"	wrapper ends, covered	I	50
5612	"	12	3	"	"	Russia leather	2	25
5613	66	10	3	66		and 14 1 1/3-dram vials, red		25
5614	44	18	-		66	red Morocco		85
2014			0				*	2

All Instruments designated by a * are illustrated.

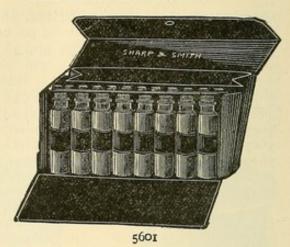
	FIG.	PH	YSI	CIAN	15' P	OCKET MEDICINE CASES.		
		contains	24 3	dran	vials,	and 16 11/3-dr. vials, 3-fold, 2 pockets.	\$2	25
	5616	44	24			2 pockets, and places for powders		25
	5617	44	10	1 "	44	and 18 11/2-dr. vials, all upright		00
	5619	"	10	1 "	"	and 28 2-dr. vials, 3-fold, imitation		
						Russia	3	00
	5621	"	8 :		"	on one side		95
•	5622	44	10		"	and 14 2-dr. vials, imitation Russia	2	25
	5625	. "	20		66	amber, book style, Morocco		25
	5627	"	24		46	calfskin clasp		00
	5629	44	10		- 66	amber, stiff ends	1	15
	5630	"	6		"	Morocco		60
	5633	"	8 .	4 "	"	glass stopper, and 12 2-dr. amber stiff	2	60
	5634	"	16	1 "	"	glass stopper, with pocket and clasp	3	00
	5635	66	20		- 66	wrapper case, metallic ends, red soft		
						Morocco	1	85
	5636	"	24 :	2 "	"	wrapper case, metallic ends, red soft		
						Morocco	2	25
	5638	"	10	3 "	66	and 14 11/2-dr. vials, wrapper case, me-		
						tallic ends, red soft Morocco	2	60
	5639	"	30		"	long	2	60
	5640	"	15	2 "	**	long, and 30 1-dr. short vials, wrapper		
						case, metallic ends	2	60
	5641	- 44	12	2 "	46	glass stopper vials, metallic ends, soft		
						red Morocco	2	25
	5642	44	12	2 "	44	glass stoppers and 10 3-dr. cork stopper		13.
						vials, metallic ends, soft red Morocco	2	60
	5644	٠.	20		"	russet leather, strap		95
	5645	**	10			vials, with memorandum slate, Morocco	2	25
	5646	44	10	2 "	G. S.	, 12 2-dr. C. S., and 15 11/2 dr. vials,		
		5.0				Morocco	3	35
	5647	"	10	3 "	G. S.	, and 15 2-dr. C. S. vials, stiff ends, dark		-
				-	0.0	Morocco		60
	5648	"	8			bottles, Morocco		25
	5652	"	12					60
	5653		10		- 44	soft red Morocco		85
,	5654 5655	"	24	2	"			00
	5055	"	12	-	"			25
	5656		15	-				60
	5657		KS	Patent		18 2-dr. vials	I	
	5658					20 " "	- 2	25



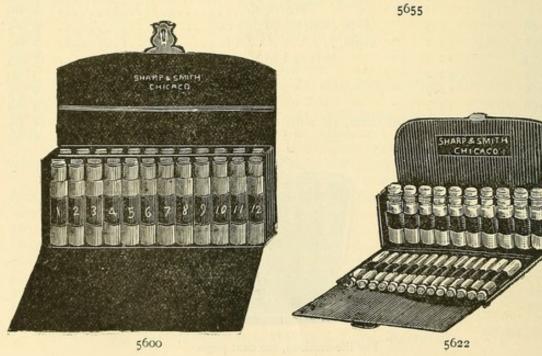
5549 For illustrations, see next page.

HYSICIANS' POCKET MEDICINE CASES.









PHYSICIANS' HAND CASES.

Sharp & Smith—Morocco—Contains 12 4-dram vials and 24 2-dram vials, including pockets for powders, etc.; length, 9 inches; width, 23/8 inches; height, 5 inches. Price, \$4.50 net.

5660 B Sharp & Smith—Morocco—Contains 24 4-dram vials and 24 2-dram vials, including pockets for powders, etc.; length 9 inches; width,

3 inches; height, 5 inches. Price, \$5.25 net.

5661 C Sharp & Smith—Morocco—Contains 6 1½ oz. G. S. bottles, 12 1-dram vials and 6 3-dram vials, including pockets for powders, etc.; length, 9½ inches; width, 2¾ inches; height, 5 inches. Price, \$4.50 net.

5662 D Sharp & Smith—Russet—Contains 6 1½-oz. G. S. bottles, 12 1-dram vials and 6 3-dram vials, including pockets for powders, etc.; length, 9½ inches; width, 2¾ inches; height, 5 inches. Price, \$5.25 net.

*5663 E Sharp & Smith—Russet—Contains 6 1½-oz. G. S. bottles, 18 3-dram vials and 12 1-dram vials, including pockets for powders, etc.; length, 9½ inches; width, 3¾ inches; height, 5 inches. Price, \$6.00 net.

*5664 F Sharp & Smith—Russet—Contains 12 1½-oz. G. S. bottles, 6 3-dram vials and 12 1-dram vials, including pockets for powders, etc.; length, 9½ inches; width, 4 inches; height, 5 inches. Price,

\$6.35 net.

5665 G Sharp & Smith—Red Horse-hide—Contains 8 1½-oz. G. S. bottles, 10 1-oz. C. S. bottles, 8 4-dram vials and 14 2-dram vials; also space for instruments; length, 12¼ inches; width, 5½ inches; height, 5½ inches. Price, \$7.85 net.

*5666 G (Special). Sharp & Smith—Red Horse-hide—Contains 8 1½-oz. G. S. bottles, 11 1-oz. C. S. round vials, 8 4-dram C. S. round vials and 16 2-dram C. S. round vials; also space for instruments, pockets for powders, etc.; length, 13 inches; width, 5¾ inches; height, 5½ inches, with flaps on lid. Price, \$9.00 net.

*5667 H Sharp & Smith—Red Horse-hide, N. P. Trimmings—Contains 8 1½-oz. G. S. bottles, 10 1-oz. C. S. round bottles, 12 ¾-oz. C. S. round bottles, 8 4-dram C. S. vials and 10 2-dram C. S. vials, including pockets for powders, etc.; length, 11½ inches; width, 5 inches; height, 5½ inches. Price, \$9.00 net.

5668 I Sharp & Smith—Russet—Contains 16 1½-oz. G. S. bottles, 10 1-oz. C. S. round bottles, 8 4-dram C. S. vials and 14 2-dram C. S. vials, including pockets for powders, etc.; length, 12½ inches; width, 5¾ inches; height, 5½ inches. Price, \$9.75 net.

*5669 J Sharp & Smith—Russet, buckle fastening—Contains 16 1½-oz. G. S. bottles, 10 1-oz. C. S. round bottles, 8 4-dram C. S. vials and 14 2-dram C. S. vials, including pockets for powders, etc.; length, 12¾ inches; width, 6 inches; height, 6 inches. Price, \$10.50 net.

*5670 K Sharp & Smith—Morocco, N. P. Trimmings—Contains 12 1-oz. C. S. round vials, 8 6-dram C. S. round vials and 16 2-dram C. S. round vials on one side; space, with loop for instruments on the other; length, 11½ inches; width, 4 inches; height, 6½ inches. Price, \$11.25 net.

5671 L Sharp & Smith—Dark Morocco—Contains 8 1-oz., 12 4-dram, 15 1½-dram and 15 1-dram corked vials, and elastic loops for surgical instruments; length, 9¼ inches; width, 2¾ inches; height, 5½

inches. Price, \$6.75 net.

PHYSICIANS' HAND CASES.

5672 M Sharp & Smith—Seal Skin—Contains 2 2-oz. G. S. vials, 6 1-oz., 8 4-dram and 18 2-dram corked vials, and elastic loops for surgical instruments; length, 11 inches; width, 3 inches; height, 53/4 inches. Price, \$9.00 net.

*5673 N Sharp & Smith—Dark Morocco—Contains 8 1-oz., 12 4-dram and 24 2-dram corked vials, and space for sundries; length, 9 inches; width,

4½ inches; height, 4½ inches. Price, \$6.35 net.

*5674 O (Homœopathic). Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 12 1-oz. C. S. round vials, 45 2-dram C. S. round vials and 60 1-dram C. S. round vials, including pockets for powders, etc.; length, 11 inches; width, 3¾ inches; height, 6½ inches. Price, \$12.00 net.

5675 P (Shinn's). Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 10 1-0z. C. S. round salt-mouth powder vials, 10 ½ oz. C. S. salt-mouth powder vials, 10 1-oz. rubber-stoppered tincture vials, and 10 4-dram rubber-stoppered tincture vials, including pockets for powders, etc.; length, 10 inches; width, 4 inches; height, 7 inches. Price, \$10.50 net.

5676 Q Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 26 3dram, 26 1-oz. and 4 3-oz cork stoppered vials, and space for powders, etc.; length, 12 inches; width, 534 inches; height, 7½ inches.

Price, \$10.00 net.

5677 R Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 20 1-oz. cork stoppered vials, 13 ¾-oz. cork stoppered vials; 2 spaces, 4½ inches wide, 5½ inches long, and 1¼ inches deep, for instruments; also space ½ inch deep under vials for powders, etc. Length, 10 inches; width, 4¾ inches; height, 6½ inches. Price, \$11.25 net.

Fig. 5678.—Sharp & Smith's Emergency Case.

FOR RAILROADS AND STEAMBOATS,

Dark Morocco, N. P. Trimmings. Contains:

2 4-oz G. S. Bottles.

7 i-oz. G. S. Bottles.

2 2-dram G. S. vials.

pair Bone Forceps, with spring.
 Metacarpal Saw, lifting back.

Metacarpal Saw, lifting back.
 shell slide-catch Probe and sharp curved i pair Dressing Forceps.
 Bistoury.
 Field Tourniquets.

Bistoury.

3 Field Tourniquets.

1 shell slide-catch Scalpel and Tenotome. 1 pair Probes.

ı coil Silver Wire.

Needles, Silk, space for Sponges, Roller Bandages, etc. Length, 10½ inches; width, 5 inches; height, 6½ inches. Price, \$45.00.

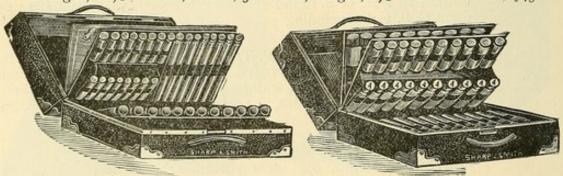


Fig. 5670-K Case.

Fig. 5674-O Case.

I English Lens Thermometer.

Catheter.

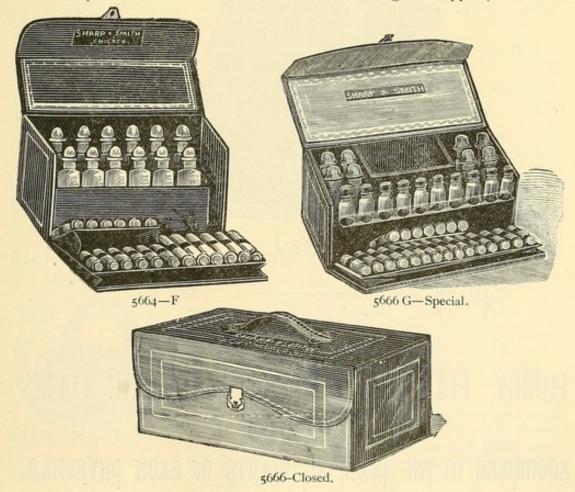
1 No. 3 X Hypodermic Syringe.

I Combined Male and Female

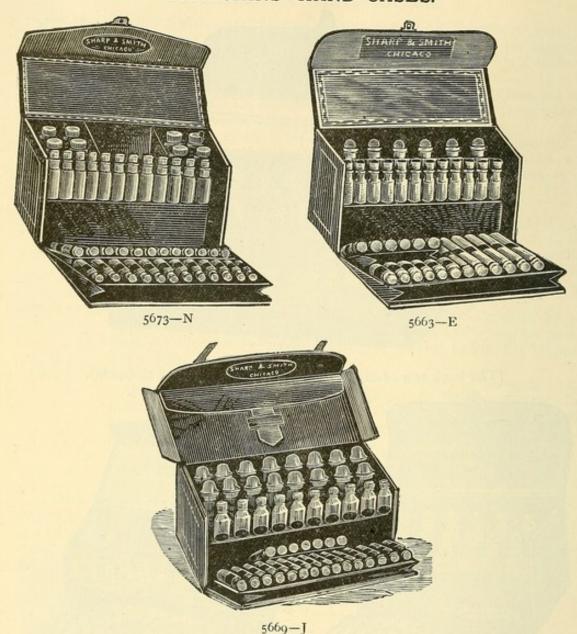
PHYSICIANS' HAND CASES.



5667—H (The back row of bottles in this case are all glass stoppers).



PHYSICIANS' HAND CASES.

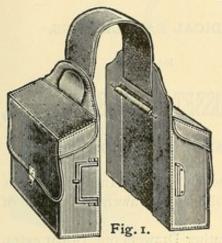


WE MANUFACTURE

BUGGY, HAND, AND POCKET MEDICINE CASES

ACCORDING TO THE PECULIAR WANTS OF EACH PHYSICIAN.

MARSHALL'S PATENT CONVERTIBLE SADDLEBAGS HAND CASE.



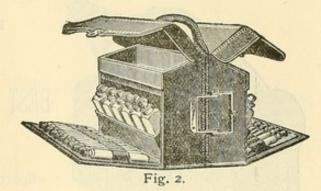


Fig. I is Fig. 2 in Saddlebags Form. Fig. 2 is Fig. 1 in Hand Case Form.

Original and Only Perfectly Convertible Hand Case Saddlebags in the World.

Has two trays, one on either side, 71/2 in. long, 21/4 in. deep, by 21/2 wide, 12 11/2 oz. G. S. Bottles, 16 6-dram and 8 2-dram cork stoppered vials. Total, 36 bottles. Spaces between round and square bottles for papers.

Sent prepaid, to your nearest express office on receipt of price.

Nos. 36 or 59 A Grade or Russet Leather.....\$16 00 " " B " Black " 15 50

A and B Grades are exactly alike in every respect except color of Leather. Size of case, 6 x 8 wide x8 high.

No. 36. Price of the Pat. Top or Coverlid\$12 50 The size of the regular make, either A Grade-Russet; B Grade-Black,

or "The Leader" Casebags is 6x8x8.

They all convert equally well, joining perfectly by a hinge device, thus swallowing up the piece that crosses the saddle when it is desired to use it as a

Buggy case. Fine maroon colored leather lining. (No tin to rust.)

They are perfect, and excel all other cases in the market, either as a first class Buggy Case, or Saddlebags, and shift instantly to either form or article as

needed.

The "Leader" is as fine in appearance as either A or B Grades, having same internal arrangement, and has same silver trimmings, but patent leather instead of leather flap or cover lid, and the lid projects (at ends) instead of bow-cap.

When case is open the whole interior is in full view, and any article can be removed, as wanted, without disturbing another. Every case warranted.

In ordering please designate by grade-A, B, or Leader-as desired.



BUGGY-CASE-SADDLE-BAGS

name Marshall, with date of patent.

ONE ARTICLE IN TWO FORMS. Box Pattern, No. 33. \$10.00.

Cut No. 33 converts by same hinge device as Nos. 36 and 59. Here bags are shown arched over the respective Buggy-case into which they convert. Contents: 1 sundries space, 11 1-oz. screw top; 11 6-dr. 11 5-dr. cork stoppers.

The No. of case indicates the bottles and vials contained. When ordering do not allow any dealer to put you off with, or substitute any other case. See that each Case-bag is branded with registered number, and bears the

MEDICAL SADDLE BAGS.



MEDICAL SADDLE BAGS.

MADE OF

BEST RUSSET BRIDLE LEATHER,

PATENT LEATHER COVERS.

Space under Covers for Instruments, etc. Pattern Mahogany Drawers in the end of lower part.

Solid Leather Drawers one Dollar extra.

		20 I oz., 4 I 1/2 oz. bottles, ground stop	pers\$.10	60
Fig. 5679 {	Ex. No. 2, "	20 I OZ., 4 I 1/2 OZ. " " " "		
		· and pockets	11	50
		16 1 Oz., 4 1½ Oz. " " "		
	NO. 4,	16 1 oz., bottles, glass stoppers		
	No. 5, "	16 1 oz., " cork "	7	05

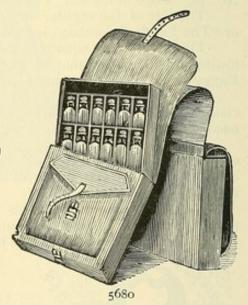
MEDICAL SADDLE BAGS.

MADE OF

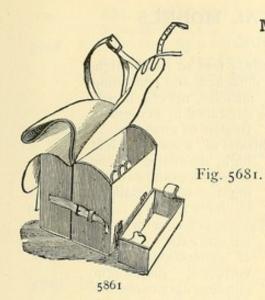
BEST RUSSET BRIDLE LEATHER,

PATENT LEATHER COVERS.

Drawers of Polished Mahogany, Velvet Lined.



	No. 6, con No. 7,	taining 12 1	½ OZ., 12 3/2 OZ., 10 3/2	4 oz., 24 be	ottles "	\$10 20 9 35
Fig. 5680				ern—Two		8 50
of the	No. 9, con No. 10	taining 10 1	½ oz., 10 ¾	4 oz., 20 l	bottles\$	9 75



MEDICAL SADDLE BAGS.

BOX PATTERN.

No. 11, containing 20 ground stoppered bottles......\$9 35

No. 12. Plain Saddle Bags, containing 20 cork stoppered vials. 7 25

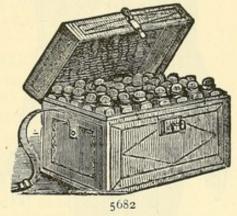
No. 13. Plain Saddle Bags, containing 24 cork stoppered vials, 7 90

MEDICINE CHESTS FOR PHYSICIANS,

MADE OF

BEST RUSSET LEATHER,

Containing the following Square Glass stoppered Bottles:



IN MAHOGANY TRAYS, MORTARS, GRADUATED MEASURE.

Four Jars, Tray for Scales, and Space for Instruments under Bottles.

THE SIZE IS BY INCHES.

Fig. 5682.	No. 1, 2, 3, 4.	containing (see above cut) containing	oz. 4 · · 4 I · 4 2 · · 4 2 · · 4	oz. 162 162 142 122					e. Length. 5 14 75 1234 90 11 25 934	
		The follow	wing	without	Mortars,	Measu	res o	r Jars	:	

Tray in front of Bottles:

6, containing 10..2 4..1 ... 14 \$8 10 9 6¼ 5¾ 7, " 5..4 7..2 6..1 ... 18 9 75 10 7¾ 5¾ 8, " 4..4 9..2 12..1 6..½ 31 11 90 13 9¾ 5¾

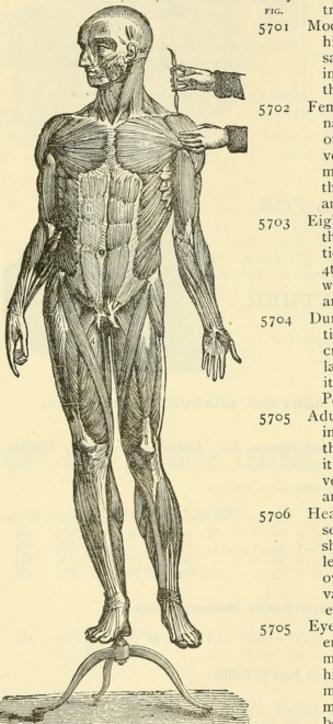
5, containing 15..½ \$8 50 81/2 53/4

(ALL THE ABOVE WITH LOCKS).

CLASTIC ANATOMICAL MODELS

OF DR. AUZOUX.

Complete model of a male human body, 5 feet 10 inches high, 5700 composed of 92 parts that may be detached, and exhibiting over 2,000 details of the viscera, muscles, nerves, bloodvessels, etc.; that is all that may be embraced in a complete



Dr. Auzoux' Models, Male or Female, (Manikin) Mounted on Stand (imported to order only).

treatise of anatomy \$1200 00 Model of a man 31/2 feet high, consisting of the same pieces and exhibiting the same details as the large model

Female pelvis, with internal and external organs of generation, lumbar vertebræ, diaphragm, muscles, aponeuroses of the perineum, vessels

and nerves..... Eight uteri, containing the product of conception at the 1st, 2d, 3d, 4th, 8th and 9th months, with examples of tubular and ovarian pregnancy.

Dura mater, with a portion of the basis of the cranium, half again as large as life, exhibiting its folds, venous sinuses, Pacchionian glands, etc.

Adult heart, separable into two parts, showing the right and left cavities, muscular fibers, vessels, nerves, orifices and valves.....

Heart of fœtus, large size, separable into two parts, showing the right and left cavities, the foramen ovalis, the Eustachian valve, the arterial canal,

Eye, complete, greatly Improved enlarged. model, on which is exhibited-not only the muscles, vessels, nerves, vitreous membranes, body and crystal lens, in separable parts; but also the different microscopic strata of the re

600 00

150 OG

150 00

40 00

25 00

25 00

FIG-	tina, choroid and iris, as they are described by modern		
-	anatomists\$ Eye, divided by a vertical section, and representing its inner	35	20
5706	half with all the foregoing details and the disposition of the		
	anterior and posterior chambers; and in addition, a portion		
	of the orbit, the conjunctiva, the structure of the eyelids, the		
	Meibomian glands, the lachrymal canals and points; the		
	muscles of Horner, etc	35	00
5707	Temporal Bone, 2 feet long, showing the internal, middle and		
	external ear, in their most minute details; the expansion of		
	the auditory nerve, the fenestra ovalis, fenestra rotunda, mem- branous canals, endolymph, perilymph, double spiral of the		
	cochlea, infundibulum, etc. All parts of this model are sep-		
	arable, and by its means the mechanism of audition may be		
	clearly explained and understood	60	00
5708	Temporal Bone, half the size of the preceding, showing the ear		
	in the same manner	40	00
5709	Gigantic Larynx, 12 inches long. On this preparation each muscle and cartilage may be separately removed, and its		
	action demonstrated; also the action of the vocal chords		
	and the mechanism of the voice	75	00
СО	LLECTION OF ANATOMICAL MODELS OF PLASTER PARI	S.	
	THEY APPEAR IN THEIR NATURAL COLORS AND ARE NOW RECOMMENDED		
	BY A NUMBER OF PROMINENT COLLEGES.		
FIG.	(A.) MAGNIFIED MODELS.		
5710	No. 1.—Human heart, front part to be taken off, showing the		
	four chambers of the heart, together with their		
	respective openings and valves	8	50
5711	No. 2.—Human eye, the upper part of the pupil (with a micro- scopic illustration of the retina) to be taken off, so as		
	to show the cornea, iris, the vitreous body and crys-		
	talline lens	7	00
5712	No. 3.—Human ear, showing the drum and membrana tympani,		
	the ossicles, labyrinth, and the cochlea half open	8	50
5713	No. 4.—Human skin, vertical section, showing the sudoriferous		
	glands, the organism of the hair, the pigment granules, and the organs of feeling	4	50
5714	No. 5.—Human teeth, showing a section of left lower jaw,	4	50
1000	development and structure of the teeth	4	50
	(B.) MODELS, NATURAL SIZE.		
5715	No. 6.—Human brain:		
	a. Upper view\$	4	00
	b. Under view	4	00
	c. Vertical section from front to back		00
	 d. Horizontal section, showing the cavities e. Skull, the brains to be taken into sections 		00
5716	No. 7.—Human head, with part of the neck, various sections:	14	00
0.	a. Outer view, showing the muscles, bloodyessels		
	and nerves	7	25
	b. Inner view, showing the cavity partially opened,		1123
	position of the eye, the upper and lower jaw	7	25
	c. Sections showing the brain and the cavity of the nose, mouth, larynx and pharynx	-	2=
	nose, mouth, larynx and pharynx	1	25

FIG.		
5717	No. 8.—Human Lungs, Heart and Larynx:	
	a, Anterior view of the lungs and heart, the pericar-	
	dium being laid open; the anterior portion of the	
	left lung is removed in order to show the bron-	
	chial ramifications \$ 4	50
	b. Posterior view of the lungs and heart with a repre-	
	sentation of the bronchial ramifications, air cells	
	and bloodvessels 4	50
5718	A.T. CHILD A. I.	
	The anterior part of both lungs, with the heart, can	
	be taken off, laying open the ramifications of the	
	windpipe within the lungs, the connections of	
	the pulmonary bloodvessels with the heart 14	00
5719	No. 10.—Human Larynx:	
200	a. Larynx, front view, with hyoidean bone and thy-	
		50
		50
	c. Larynx, in connection with the lungs and pharynx,	
		50
5720	No. 11.—Human joints, laid open with their bones and ligaments:	
100	a. Shoulder\$3 00 e. Hip, open 3	50
	b. Elbow, front view 3 oo f. Knee, open 3	50
		50
	d. Wrist and hand 4 00	-
5721	No. 12.—Human Trunk (torso), with the viscera of the thorax	
	and abdomen (lungs, liver and stomach to be removed) 35	00
Charts.	Cutter's (set of 10)	

HUMAN OSTEOLOGY.

The cause in the difference in price of these preparations will be

found to exist in the quality of the same, whether the bones contain their extremity more or less grease, or none at all. FIG. *5722 No. 1. Articulated Skeleton (Male or Female), \$40 00 to \$75 5723 No. 2. Disarticulated Skeleton 30 00 to 40	CO OO
FIG. *5722 No. 1. Articulated Skeleton (Male or Female), \$40 00 to \$75	00
FIG. *5722 No. 1. Articulated Skeleton (Male or Female), \$40 00 to \$75	00
*5722 No. 1. Articulated Skeleton (Male or Female), \$40 00 to \$75	00
	00
	00
5724 No. 3. Skeleton, articulated according to	00
Beauchene, with support: 300	00
*5725 No. 4. Disarticulated Skull (in box with com-	
partments) 12 00 to 18	00
*5726 No. 5. Skull, with teeth, lower jaw fastened	
PI VI PRE N	00
1994 WINE	50
	00
sinues—the bones can be disarticulated, so as	
to show the middle and interior ear 30	00
5730 No. 9. Internal and Median Ear, with bloodvessels and	00
*5731 No. 10. Hands or feet, each	50
*5731 No. 10. Hands or feet, each	20
the demonstration of the action of the muscles, 55	00
5733 No. 12. Leg, the same 55	
5734 No. 13. Male and female pelvis, with ligaments, each, 14	00
without ligaments 7	50
5735 No. 14. Fœtal Skulls 2	50
5736 No. 15. Feetal and Embryo Skeletons (under glass shades) 18	
3/22 2700000000 3/3/ 2/01 2/1	50
ton, Internated, and 5/30 Ito. If Spinal Column Items	00
Disarticulated. 5739 No. 18. Femurs	85

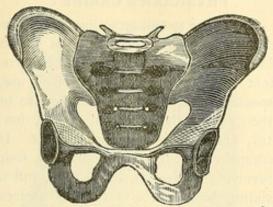


Fig. 5734—Female Pelvis, without Ligaments.

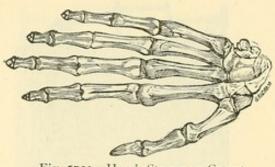


Fig. 5731-Hand, Strung on Catgut



Fig. 5731-Foot, Strung on Catgut



Figs. 5725 to 5729-Skulls.



Figs. 5725 to 5729—Separated Skulls, on Stands or in Boxes, divided into Compartments.



Fig. 5737—Skull and Cross Bones.

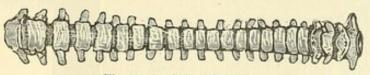


Fig. 5738-Spinal Column.

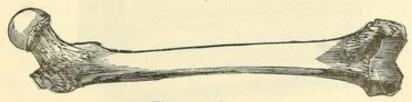


Fig. 5739-Femurs.

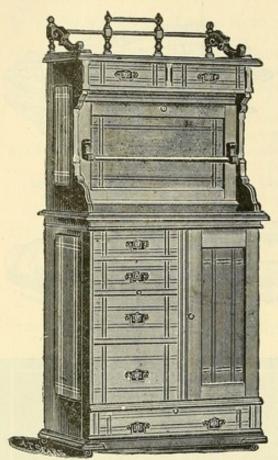


Fig. 5750-Cabinet, with desk top closed.

PHYSICIAN'S CABINET.

We desire to call attention to our new styles of Physician's Cabinet, as shown in cuts. It is a very tasty and convenient piece of furniture for office use, specially manufactured for the use of the gynecologist, surgeon, oculist, dentist, and the general practitioner. It comprises a desk top, five drawers, four revolving shelves, a towel rack, and a sliding table. The revolving shelves are so arranged when open, the operator has his instruments conveniently within reach. (See cut). Trimmings are in silver or brass (stylish patterns) mounted on boxwood casters. We make them in antique oak and solid walnut.

Height of cabinet, including desk top, to railing, 63 inches. Height of cabinet, without desk top, to railing, 40 inches. Width of cabinet, 28 inches. Depth of cabinet, 16 inches.

See next page for illustration of cabinet with desk top open; also prices of cabinets.



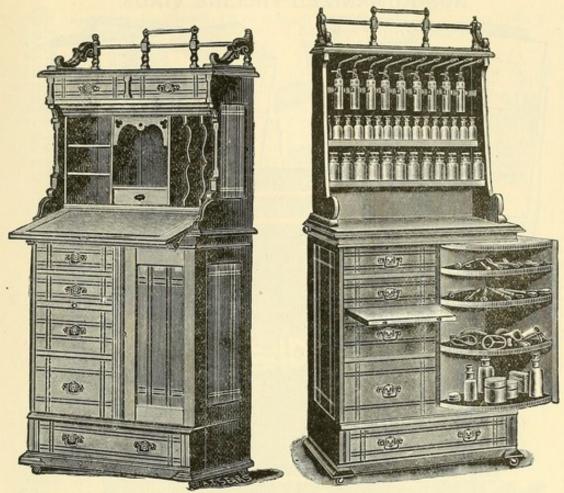


Fig. 5750—Cabinet with Desk Top—Open.

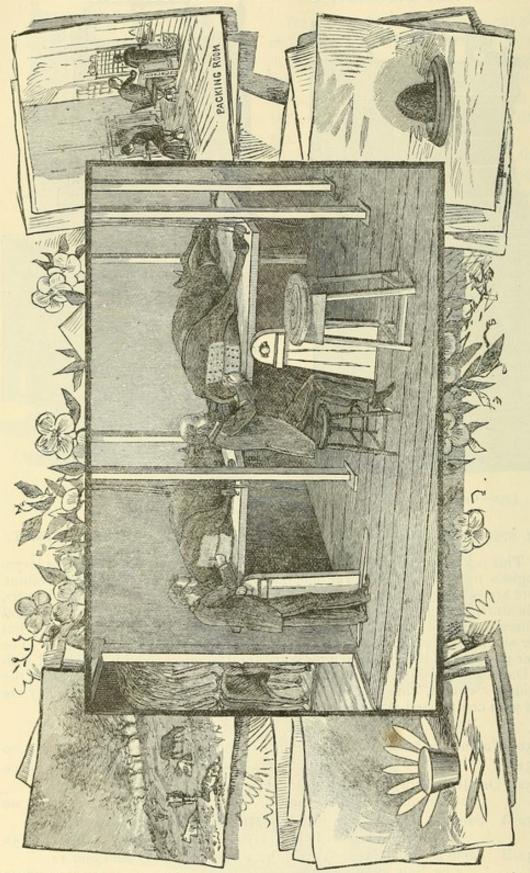
5752

Fig. 5752-DR. JOHN EDWIN RHODES' IMPROVED OFFICE CABINET.

This is a handsome and convenient cabinet designed especially for laryngologist's use. It is finished in cherry, quarter-sawed oak, or black walnut. There are six drawers, the upper three being divided by partitions for mirrors, applicators, laryngoscope, and other necessary instruments used in treatment of diseases of the throat and nose. The swinging half of the cabinet has three shelves and is a convenient receptacle for instruments of any kind. The upper portion has been arranged for bottles and atomizers, and is furnished with the Davidson No. 66 Atomizer for office use. These, in connection with the Davidson "cut-off," are all that can be desired for spray producers. They are used with compressed air apparatus to advantage.

FIG.			
*5750	Cabinet in Antique Oak or Solid Walnut, including desk top\$2		
*5751		5 00	r
*5752	Dr. John Edwin Rhodes' Cabinet in Antique Oak or Solid Wal-		
	nut without bottles or tubes	5 00	Į.
5752-A	Same as above (5752) with 9 Davidson's No. 66 sprays, each		
	held by nickel-plated clasp 30	50	
5752-E	Same as above (5752-A) with 17 1 oz. Tincture bottles and 12		
	2 oz. Salt mouth bottles 33	3 00	

NON-HUMANIZED VACCINE VIRUS.



Ten Ivory Points, heavily charged......\$1 00

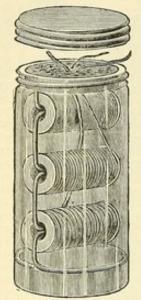
LIGATURE SILK.

FIG.		
*5775	Assorted, 3 sizes Carbolized (6 per cent.) White Braided Silkper bottle \$	
	0 - 0 0 T D 1 D 1 1 000 00 00	75
*5776	11 11 11 11 11 11 11 11 11 11 11	75
*5777	white I wisted Silk	50
*5778	3 Iron Dyed Twisted Silk	50
*5779	" 3 " " White Braided Silk, (17 yds., " 2 0	CO
5780	" 4 " Turner's Silk, White Braided	50
5781	11 11 0 0 0 11 11 11	50
*5782	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	50
*5783		25
	11 11 11 T T T T	-
5784	d of the company	25
5785	Sharp & Smith's one Size White Braided Silk Tablets	30
5785		30
5786	Turner's " " White " "	30
5787	Sharp & Smith's " Braided Silk, White or Iron Dyed, in skeins per skein	15
5788		25
*5789	4444 4 44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	10
5790		IO
5791	Cable I wist, in Skelins	25
5792	Carbolized Kangaroo Tendons, in bottle	25
5793		25
5794		15
5795	Solid "Spools " " " " " " " " " " " " " " " " " " "	05
5796	THE REST OF THE RE	05
5797		60
5798		75
5799	3 large 1 (00
5800	S. & S.'s. Hard Rubber Reels in Glass Tube for silk or catgut, 3 reels 1	25
5801		60
5802	large	75
	CATGUT LIGATURE.	
*5803	Sharp & Smith's 3 sizes assorted Catgut in 6 per cent, carbolized solution, per bottle.\$	60
5804		30
5805		35
5806		50
5807		-
	j. d. j. s	25
5808	Scholse's (10 feet), fille, filed, and farge	75
5809	Meyer's 1 yard, 2 spools in each bottle	25
5810	3 spools ass d sizes	75
5811	" " 1 dozen skeins ass'd " " " " 1	00
		7
	and the second s	7
	A STATE OF THE PARTY OF THE PAR	
	Tage See	7
	SURGEONS'	-
/	Braided Silk, Iron Dyed.	-
1	SURCEONS (Assorted Sizes.)	
A D.	IRESILK WARRANTED. Name and Address of Dealer	_
A STATE OF THE PARTY OF THE PAR	Neatly Printed here.	7
(報題語	No. 12	_
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1	HAPPINIAN CONTRACTOR	7
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600	SHARP & SMITH.	7
	perment the control perment of	
7	3 RANDOLPH ST.	-
Visite of	The second secon	
1	GHICAGO ILLES	7
		1
770		ب
	5780 Fire 5-8 a White Twisted Silk 4 sizes on care	41

FIG.

RAW ANIMAL LIGATURE.

5812 Five yard Coils Raw Animal Ligature in 8 sizes per coil of each size from 10c. to \$ 40 5813 Elastic Ligature.....per string 25



SUPERIOR SURGICAL LIGATURES.

Put up on Glass Spools, three spools (assorted sizes), in a neat bottle, with a nickel-plated screw cap. The spools are so arranged, on a metal frame in the bottle, that the ligatures may be drawn out through the cork, as they are wanted for use. The cork, being elastic, closes tightly around the ligatures, thereby pressing all of the surplus solution out of them and back into the bottle. The metal frames are all coated or enameled, which fact renders them impervious to the solutions in which they are placed. This will be found a great improvement over the old way of putting up these goods.

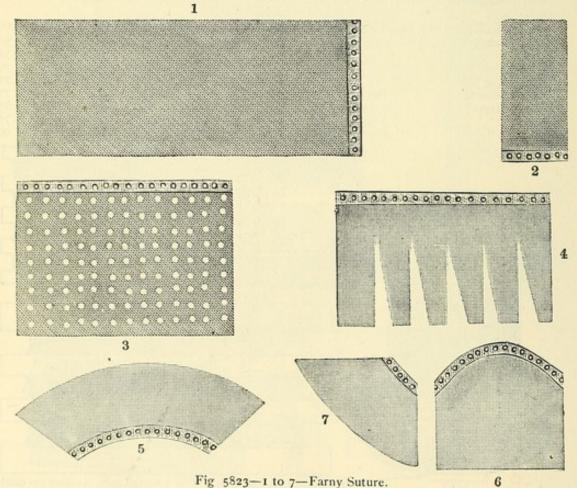
Three sizes in a bottle, on Glass Spools, with nickel-plated

screw cap. Put up in plain or dry state, or in

Carbolized 6 per cent. Chromatized, 1 to 2,000, preserved in 5 per cent. carbolized solution. Sublimatized, 1 to 2,000, preserved in 5 per cent. of carbolized solution. Juniper oil, or any special solution desired.

5775 to 5779 and 5803.

THE FARNY SUTURE, FOR THE PAINLESS SEWING AND DRESSING OF WOUNDS, COMPRESSION OF SWELLINGS, TUMORS, Etc.



THE FARNY SUTURE.

It consists mainly of a handy, ready made contrivance, composed of two pieces of strong fabric (coated with a non-irritating adhesive substance of great tenacity) and reinforced (eyelets) non-adhesive edge. These pieces, with the reinforced parts toward the wounds, are placed on both sides of it on the healthy

skin, to which they lastingly adhere.

The reinforced edges prevent tearing or stretching of the suture and can be used in various ways, of which one of the best and easiest is illustrated in our sutures style No. 1, viz.: about one-quarter inch of the adhesive side of the plaster is turned over a wire or cord, back on itself (by this process the edge is rendered non-adhesive), and into this edge eyelets are let in or other fastening devices in different styles. The thread which in the ordinary suture was sewed through the flesh, will now be drawn through the eyelets and allows the operating surgeon to bring and keep the separated parts of the wound together with the utmost nicety, and with the additional advantages of

Saving labor to the surgeon;

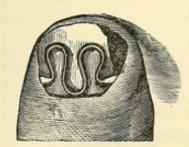
Facilitating operations without causing pain to the patients, who for some reason or another cannot be brought under the influence of an anæsthetic;

Doing away with pain and irritation of suture during the process of

healing, etc., etc.

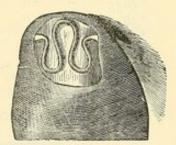
The plaster itself is of the blandest, and without irritating properties, so that even after a prolonged application none, or only trifling inconvenience will be caused, which is far less than that caused by ordinary sutures. The plaster has such powerful adhesive properties that there is no danger of the suture becoming loose, provided a piece large enough to stand the strain is used. The sutures are made from either solid or perforated materials. The latter is preferred by many practitioners, as it allows a ready egress for perspiration.

STEDMAN'S SILVER AUTOMATIC IN-GROWING TOE-NAIL CURE.



PATENTED NOV. 5th, 1872, MARCH 25th, 1873.

Price.....25c. per pair.



This instrument gently lifts the inverted parts of the nail out of the flesh, affording immediate relief. It may be applied to any case; is worn with the shoe with perfect ease; and is a reliable, permanent, speedy and painless cure.

SHARP & SMITH,

Western Agents,

73 RANDOLPH STREET, - CHICAGO, ILL.

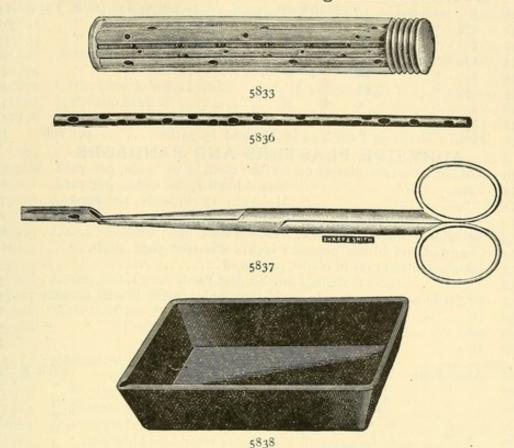
FIG.	Misce	ellaneous	and Ge	nera	Su	rgica	al Ne	cessiti	es.		
	Pure Si	lver Wire,	assorte	d siz	es. f	from	18 t	0 32	Stubbs		
34	Gauge							p	er coil \$	1	35
5815	Pure Silv	ver Wire, 6	differen	t size	s (1	yard	each)	on spe	ools in		
5816	Pure Sil	ver Wire, 6	differer	it size	s (1)	yard	each)	on spe	ools in	1 5	0
-0	case								per oz.	0	00
5817	Fure Cop	oper Wire,	silver pia	ted	• • • • •			F	er coil		25
5818	Iron Wir	e								I	0
5819	Lead Wi	re								2	0.5
5820	Silk Wor	m Gut, per	doz. str	ings							0.0
5821			bunch.					;		7	75
5822		ny's Adjus								5	;0
*5823	Farny Su	ture, from	I to 7 in	box.				p	er box		0
*5823	"	" in one	e yard le	engths				pe	er yard	IC	00
	(See	preceding	page for	illusti	ration	of I	Farny :	Sutures	.)		
		DRAIN	IAGE T	IRES	ANI	TII	BING				
5824	Decalcific	ed Bone Di							er inch		
5825	"	"	"	"				in bott			10
5826	44	"	44	"	21/3	"	iong,	"			30
5827	"	**		**	100		"	"			35
5828	"	**	"	"	4 2				onch		10
5829	"	"	"	"	21/2						25
5830	"						**	• • • • • •	"		35
5831	Androwe	Suction D			3						10
	Purified 1		"								75
5832 *5833	Maroon	"	"	"	6 20	corte	d cize	e in h	ottle 7	187	0
5033		long			o as	SOILE	u Size	.s, III D	bottle		
*5834		n Rubber									75
5034		SS' GLAS								-	25
*5835		lass Draina									10
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*= 835	"		"	100							0
*5835 *5835 *5835	46		"	66	3, 5						12
*5835					4, 6						12
*5835 *5835 *5835 *5836 *5836			**		5, 7					1	15
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\$035 *=806	Pure Silv				7. 9	41.					20
*=030								p	er men		5
5037	Listers	Forceps for	introduc	ing D	rama	ge 1	ubes			2 2	5
	5824			NA COLOMB	STORY OF THE PARTY	10000	TO YOUR	THE REAL PROPERTY.			
	5834		SHARP &	SMITH CH	CACO		1				
		ANTISEP	TIC DR	AINA	GE T	UBE	S.—GI	ass.			
.0.		- 0		-	0	NC SHOWING		0	A		
58	3500	OFFERRE	ERE ()	0		0	0	U		

Made after Patterns furnished by Prof. S. W. Gross.

These Tubes have large holes, one-half inch apart, arranged alternately on opposite sides.

They are carefully finished, especial care being taken to make them smooth. In addition to the drainage holes, each tube has at one end two smaller holes for the insertion of Safety Pin, through which it is prevented slipping into the wound. For other Drainage Tubes see Index.

Miscellaneous and General Surgical Necessities.



PAPIER MACHE INSTRUMENT TRAYS, FOR HOLDING ANTISEPTIC SOLUTION AND INSTRUMENTS.

Papier Mache is well known as an exceedingly tough substance, and articles made of it are almost indestructible.

This material is being used in Europe in the construction of photographic trays, and they are now offered for the first time in the United States as antiseptic trays for surgical operating instruments.

The trays are most desirable on account of their durability, and being finished with a hard and polished black surface, are thoroughly adapted for surgical and chemical purposes.

	SIZE OF TRAYS. PRICES.	
FIG.	(Inside Bottom).	
*5838	12 ¼ X10 ¼ inches	50
*5838	14½X12¼ " " 2	2 00
		3 50
*5838	19X24 " " 5	50
V	Ve also have these in "Agate" Ironware (seamless, Fig. 5839) which	are
also i	ndestructible. The "Agate" trays have "handles" for convenience	e in
carryi		
*5839	14 inch\$	80
*5839	15 "	90
*5839		00
*5839		10
*5839	18 " 1	25

ADHESIVE PLASTERS AND BANDAGES. Rubber adhesive plaster on cotton cloth, 7 in. wide, per yard Emp. "Swansdown 17 in. wide, per yard Moleskin 17 in. wide, per yard S851 "Moleskin 17 in. wide, per yard S852 "Moleskin 17 in. wide, per yard S853 Belladona adhesive plaster, 7 inches wide per yard S854 Camphorated blister plaster 7 inches wide per yard S855 Isinglass plaster on fine silk, per yard S856 "Strong muslin, per yard S857 to yards adhesive bandage, ½ inch wide, in tin boxeseach S858 to "Strong muslin, per yard S859 to "Strong muslin, per yard S850 to "Strong muslin, per yard S851 Absorbent, I lb. packageseach \$ S862 "J2" "Moleskin 17 in. wide, per yard COTTON. S861 Absorbent, I lb. packageseach \$ S862 "J2" "Moleskin 17 in. wide, per yard COTTON.	75 65 55 50 40 35 35 25 75 55 60 60 50 30 35 50 70 40 40 40 40 40 40 40 40 40 40 40 40 40
5841 2½ " " 10 " " " " " " " " " " " " " " " "	65 55 50 40 35 35 25 75 55 60 60 50 30 30 30 70 40 40 40 40 40 40 40 40 40 40 40 40 40
5842 2 " " 10 " " " " " " " " " " " " 5843 1½ " " 10 " " " " " " " " " " " " " " " "	55 50 40 35 35 35 25 75 55 60 60 50 30 30 35 50 70 40 40 40 40 40 40 40 40 40 40 40 40 40
5843 11½ " 10 " " " " " " " " " " " 5844 1 " " 10 " " " " " " " " " " " " " " "	50 40 35 35 35 75 55 60 50 30 30 30 30 40
5844	40 35 35 35 25 75 55 65 75 25 60 50 30 30 35 50 70 40
5845	35 35 75 75 66 60 50 30 30 30 70 40
5846 7 " " 1 " "	35 75 75 55 60 60 50 30 30 30 70 40
5847 12 " " 5 " " " box " 1 5848 Mead's Dressing Paper, 24 inches and 25 yards	25 75 55 65 75 25 60 50 30 30 35 70 40
ADHESIVE PLASTERS AND BANDAGES. Rubber adhesive plaster on cotton cloth, 7 in. wide, per yard\$ Emp. " "Swansdown 17 in. wide, per yard Moleskin 17 in. wide, per yard S851 " " "Moleskin 17 in. wide, per yard S852 " "Shirting, per yard S853 Belladona adhesive plaster, 7 inches wide per yard S854 Camphorated blister plaster 7 inches wide per yard S855 Isinglass plaster on fine silk, per yard S856 " "strong muslin, per yard S857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach S858 10 " " " " " " " " " S859 10 " " " " " " " " " " " S860 10 " " " " " " " " " " " " COTTON. S861 Absorbent, 1 lb. packages	75 55 65 75 25 60 50 30 30 35 50 70 40
ADHESIVE PLASTERS AND BANDAGES. Rubber adhesive plaster on cotton cloth, 7 in. wide, per yard\$ Emp. " "Swansdown 17 in. wide, per yard Moleskin 17 in. wide, per yard S851 " " "Moleskin 17 in. wide, per yard S852 " "Shirting, per yard S853 Belladona adhesive plaster, 7 inches wide per yard S854 Camphorated blister plaster 7 inches wide per yard S855 Isinglass plaster on fine silk, per yard S856 " "strong muslin, per yard S857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach s858 10 " " " " " " " " " " " " " " " " " "	55 65 75 25 60 50 30 30 35 50 70
5849 Rubber adhesive plaster on cotton cloth, 7 in. wide, per yard\$ 5850 Emp. " "Swansdown 17 in. wide, per yard 5851 " "Moleskin 17 in. wide, per yard 5852 " "Shirting, per yard 5853 Belladona adhesive plaster, 7 inches wide per yard 5854 Camphorated blister plaster 7 inches wide per yard 5855 Isinglass plaster on fine silk, per yard 5856 " "strong muslin, per yard 5857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach 5858 10 " " " " " " " " " 5859 10 " " 2 " " " " " " " 5860 10 " " 3 " " " " " " " 5861 Absorbent, 1 lb. packages	65 75 25 60 60 50 30 35 50 70
5850 Emp. " " " Swansdown 17 in. wide, per yard 5851 " " " " Moleskin 17 in. wide, per yard 5852 " " " Shirting, per yard 5853 Belladona adhesive plaster, 7 inches wide per yard 5854 Camphorated blister plaster 7 inches wide per yard 5855 Isinglass plaster on fine silk, per yard 5856 " " strong muslin, per yard 5857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach 5858 10 " " " " " " " " " 5859 10 " " " 2 " " " " " " 5860 10 " " 3 " " " " " " " 5861 Absorbent, 1 lb. packages each \$ 5862 " ½ " " " " " " " " " 5863 " ½ " " " " " " " " " " " " " " " " "	65 75 25 60 60 50 30 35 50 70
5851 " " " Moleskin 17 in, wide, per yard 5852 " " " Shirting, per yard 5853 Belladona adhesive plaster, 7 inches wide per yard 5854 Camphorated blister plaster 7 inches wide per yard 5855 Isinglass plaster on fine silk, per yard 5856 " " strong muslin, per yard 5857 10 yards adhesive bandage, ½ inch wide, in tin boxes each 5858 10 " " " " " " " " " " 5859 10 " " " " " " " " " " 5860 10 " " " " " " " " " " " 5861 Absorbent, 1 lb. packages each \$ 5862 " ½ " " " " " " " " 5862 " ½ " " " " " " " 5863 " ½ " " " " " " " 5864 " ½ " " " " " " " 5865 " ½ " " " " " " " 5862 " ¼ " " " " " " "	75 25 60 60 50 30 30 35 50 70
5852 " " " " " Shirting, per yard	25 60 60 50 30 30 35 50 70
5853 Belladona adhesive plaster, 7 inches wide per yard. 5854 Camphorated blister plaster 7 inches wide per yard. 5855 Isinglass plaster on fine silk, per yard. 5856 " "strong muslin, per yard. 5857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach 5858 10 " " " " " " " " 5859 10 " " " " " " " " " 5860 10 " " " " " " " " " " 5861 Absorbent, I lb. packages	60 60 50 30 30 35 50 70
5854 Camphorated blister plaster 7 inches wide per yard	60 50 30 30 35 50 70
5855 Isinglass plaster on fine silk, per yard. 5856 " "strong muslin, per yard. 5857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach 5858 10 " " " " " " " " " 5859 10 " " 2 " " " " " " " 5860 10 " " 3 " " " " " " COTTON. 5861 Absorbent, I lb. packages	50 30 30 35 50 70
5856 " " strong muslin, per yard	30 30 35 50 70 40
5857 10 yards adhesive bandage, ½ inch wide, in tin boxeseach 5858 10 " " " " " " " " " 5859 10 " " 2 " " " " " " 5860 10 " " 3 " " " " " COTTON. 5861 Absorbent, 1 lb. packages	30 35 50 70 40
5858 10 " " " " " " " " " " " " " " " " " "	35 50 70 40
5859 10 " " 2 " " " " " " " 5860 10 " " " " " " " " " " " " " " " " " "	50 70 40
5860 10 " " " " " " " " " " " " " " " " " "	70
5861 Absorbent, 1 lb. packages each \$ 5862 " 1/2 " " " " 5862 " 1/4 " " " "	40
5861 Absorbent, 1 lb. packages	
5862 " ½ " "	
5862 " 1/4 " "	7 P. P.
	25
5863 " 2 OZ. "	
5864 " 1 " ""	15
5865 Borated 1 lb ""	
5866 " 1/2 " "	45
5867 " 1/4 " ""	25
5868 " 2 OZ. "	15
5869 " 1 " ""	10
5870 Carbolated 1 lb ""	50
5871 " ½ " ""	35
5872 " 1/4 " "	30
5873 " 2 OZ. "	20
5874 " 1 " "	15
5875 Sublimated 1 lb ""	45
5876 " ½ " " "	30
5877 " ¼ " "	25
5878 " 2 OZ. "	15
5879 " 1 " ""	10
5880 Salicylated I lb ""	50
5881 " ½ " ""	35
5882 " 1/4 " "	30
5883 " 2 OZ. "	20
5884 " 1 " ""	15
5885 Iodoform " in one ounce bottles"	25
5886 Styptic " " " " ""	20
SURGEONS' LINT.	
5887 Lister's Mfg. Co.'s Surgeon's Lint, per lb\$	65
5888 Taylor's " " " "	75
5789 "Superior quality Surgeon's Lint per lb	50
5890 " " " " ounce package	25

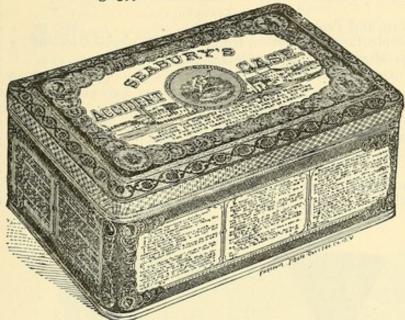
1			_
FIG.	PURE LAMB'S WOOL.		
5891	Plain Antiseptic Lamb's Wool, pound pkgs\$	2	00
5892	" " " 1/2 " "		00
5893			
	Binoidide of Mercury, 1-8000 Lamb's Wool, 1 pound pkgs		50
5894	" " " " " " " " " " " " " " " " " " "	2	00
5895	/2	1	00
5896	Carbolated 1-8000 Lamb's Wool, 1/4 pound pkgs		65
5897	Iodoform " " " 1/4 " "		75
5898	Sublimated " " " 1/4 " "		65
	JUTE.		
5899	Carbolized Jute, in 1 lb. tin boxes		30
5900	Plain "per lb.		20
5901	Tarred " in 1 lb. tin boxes		
5902	Oakumper lb.		35
5902	PROTECTIVES.		25
	Oiled Muslinper yard\$		
5903			50
5904	" Silk, 30 inches wide" " " 28 " " "		95
5905			70
5906	Green Sirk Protective Cloth	1	50
5907	Gutta Percha Tissue, best quality "		50
5908	McIntosh Black Rubber Cloth "		60
5909	" Pink " " "	1	50
	RUBBER SHEETING.		
5910	Rubber Sheeting, white, 4 ydsper yard\$		75
5911		1	00
5912			25
5913	Unbleached Roller Bandages		-5
5914	One lb. Boxes, assortedper lb.		00
5915	i inch wide by I yard long,) For fingers and toes, and)		00
5916			
	1½ inches " 3 " " hands and feet. 2 " " 3 " " For forearms, arms, head		
5917	2 " 8 " { and legs of children.		
5918	and rege of children		
5919	2/2 3 (Tot forearms, arms and		
5920	1 head of adults.	I	00
5921	3 4		
5922	3 FOI TOWER EXTERIITIES, CIA-		
5923	3/2 5) Vicie, etc., for addits.		
5924	3½ " 8 " ")		
5925	4 " 6 " For the body or trunk.		
5926	4 " " 8 " ")		
	ANTISEPTIC GAUZE.		
5927	S. & J.'s 10 per cent. Carbolized Gauze, 5 yard roll in can, per can\$		65
5928	" 5 " Iodoform " 5 " " " "	1	50
5929	" 10 " " 5 " " " "		75
5930	" 1-2000 Corrosive Sublimate " 5 " " " "		60
5931			00
	" 5 " Naph. " 5 " " "	•	
5932	J. & J.'s Carbolized " 5 " " "		75
5933	" 10 per cent. Iodoform " 5 " " "		55
5934	" 5 per cent. Hydronaphthol" 5 " " " " " " " " " " " " " " " " " "		10
5935	Meyer's to per cent Carbolized " " " " "		55
5936	Meyer's 10 per cent. Carbolized " 5 " " " "		55
5737	" 5 " " 5 " " " " " " " " " " " " " " "		50
5938			50
5939	" 5 per cent. Iodoform " 5 " " " " " " " " " " " " " " " " "		25
5940	" 10 " " 5 " " " "	I	25

Schorse's 5 per cent. Carbolized Gauze, in 5 yd. rolls, per roll \$ 5942	FIG. ANTISEPTIC GAUZE—Continued.													
10	5041	Sch	orse's	5 per	cent.	Carbol	ized	Gauze:	in	s vd	rolls	per roll	8	50
1-2000 Corrosive Sublimate					"	"						per ron	Ψ	-
Specific Specific			" I	-2000 (Corros	ive Sub	limat	е "	44		66	44		
Soy Carbolized									"		44	14	1	
Solition						"		- 66	16		44	**	1	
Carbolized		List	er's i	-1000	Corros	sive Sul	blima	te "	**			66		
Solition								44	66			66		
5948 25 Yard Rolls Plain Absorbent								44	44	5 "		44	1	
Solition		25				Absor	bent	16						
Sopto								ate "						
### SPST WHITE MUSLIN BANDAGES. 10			46	44				**						
10 10 10 10 10 10 10 10	0,0			BES			MUSI	IN BA	ND	AGE	S.			3
5952 1 in.x3 " " " " " 45 5953 2 in.x3 " " " " " " 45 5954 2 in.x8 " " " " " " 65 5955 2 ½ in.x8 " " " " " " 65 5956 2 ½ in.x8 " " " " " 1 50 5957 3 in.x4 " " " " " " 1 50 5958 3 in.x8 " " " " " " 1 30 5959 3½ in.x5 " " " " " 1 70 5960 3½ in.x5 " " " " " 1 70 5960 3½ in.x8 " " " " " 1 70 5961 4 in.x6 " " " " " 1 70 5962 4 in.x8 " " " " " 1 70 5962 4 in.x8 " " " " " 1 70 5963 1 ½ in.x3 Yards White or Red Flannel Bandages per doz.\$ 1 25 5964 2 in.x8 " " " " " " 1 75 5966 2 ½ in.x8 " " " " " 1 75 5966 2 ½ in.x8 " " " " " 1 75 5966 2 ½ in.x8 " " " " " 1 75 5966 2 ½ in.x8 " " " " " 1 75 5966 2 ½ in.x8 " " " " " 1 75 5967 2 ½ in.x8 " " " " " 1 75 5967 2 ½ in.x8 " " " " " 1 75 5969 3 in.x4 " " " " " 1 75 5969 3 in.x4 " " " " " 1 75 5969 3 in.x4 " " " " " 1 75 5970 3½ in.x5 " " " " " 1 40 5971 3½ in.x5 " " " " " 1 40 5971 3½ in.x5 " " " " " 1 50 5972 4 in.x6 " " " " " 1 70 5976 2 in.x6 " " " " " " 1 70 5977 2 in.x6 " " " " " " 1 1 25 5978 2½ in.x3 " " " " " " " 1 1 40 5980 3 in.x3 " " " " " " " 1 1 40 5980 3 in.x3 " " " " " " " 1 1 40 5981 3 in.x6 " " " " " " " 1 1 40 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5984 1 " Hydronaphthol " " " 25 5985 5 " " ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " 40	FOET		in xr									ner doz	0	10
\$953		1					11		500			. per doz	φ	
5954 2 in.x8 " " " " " 65 5955 2 ½ in.x3 " " " " " " 65 5956 2 ½ in.x3 " " " " " " 90 5958 3 in.x4 " " " " " " 1 30 5959 3 ½ in.x8 " " " " " 1 30 5959 3 ½ in.x8 " " " " " 1 70 5960 3 ½ in.x8 " " " " " 1 70 5960 4 in.x6 " " " " " " 1 70 5961 4 in.x3 Yards White or Red Flannel Bandages. per doz.\$ 1 25 5963 1 ½ in.x3 " " " " " " 1 75 5965 2 in.x8 " " " " " 1 50 5965 2 in.x8 " " " " " 1 75 5966 2 ½ in.x3 " " " " " 1 75 5967 2 ½ in.x3 " " " " " 1 75 5967 2 ½ in.x8 " " " " " 1 75 5968 3 in.x4 " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5969 4 in.x5 " " " " " 1 75 5969 5970 3 ½ in.x5 " " " " " 1 75 5971 1 ½ in.x5 " " " " " 1 75 5972 4 in.x6 " " " " " 1 75 5973 1 in.x3 Yards Best Plaster Paris Bandages. per doz.\$ 70 5974 1 ½ in.x5 " " " " " " 1 75 5975 2 in.x6 " " " " " 1 75 5976 2 in.x8 " " " " " 1 75 5977 2 in.x5 " " " " " " 1 75 5978 2 ½ in.x3 " " " " " " 1 75 5979 2 ½ in.x3 " " " " " " 1 75 5979 2 ½ in.x6 " " " " " 1 75 5980 3 in.x3 " " " " " " 1 75 5981 3 in.x6 " " " " " " 1 1 40 5982 5 per cent. Boracic Acid Soap, in tin boxes. each \$ 25 5984 1 " Hydronaphthol " " " " 25 5985 5 " " ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle. per bottle \$ 25 5987 " " 50 " " 40				**			66	**						
5955 2½ in.x3 " " " " " " 5555 2½ in.x8 " " " " " " " 90 5957 3 in.x4 " " " " " " 1 50 5958 3 in.x8 " " " " " " 1 70 5959 3½ in.x5 " " " " " " 1 70 5960 3½ in.x8 " " " " " " 1 70 5960 3½ in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 4 in.x8 " " " " " " 1 70 5960 2 in.x3 " " " " " " " 1 70 5960 2 in.x3 " " " " " " " 1 70 5960 2 in.x3 " " " " " " " 1 75 5966 2 in.x3 " " " " " " " 1 75 5966 2 ½ in.x3 " " " " " " " 1 75 5966 2 ½ in.x3 " " " " " " " 1 75 5967 2 ½ in.x8 " " " " " " " 1 75 5969 3 in.x4 " " " " " " 1 75 5969 3 in.x4 " " " " " " 1 75 5969 3 in.x8 " " " " " " " 1 75 5970 3½ in.x5 " " " " " " 1 75 5971 3½ in.x5 " " " " " " " 1 50 50 5971 3½ in.x5 " " " " " " " 1 50 50 5972 4 in.x6 " " " " " " 1 50 50 5972 4 in.x6 " " " " " " " 1 50 50 5973 1 in.x5 " " " " " " " " 1 50 50 5974 1½ in.x5 " " " " " " " " 50 50 5975 1½ in.x3 " " " " " " " " 1 00 5976 2 in.x3 " " " " " " " " 1 00 5976 2 in.x3 " " " " " " " " 1 00 5976 2 in.x3 " " " " " " " " 1 00 5976 2 in.x3 " " " " " " " " 1 00 5976 2 in.x3 " " " " " " " " 1 00 5979 2 ½ in.x6 " " " " " " " " " 1 00 5979 2 ½ in.x6 " " " " " " " " " 1 00 5979 2 ½ in.x6 " " " " " " " " " 1 00 5978 3 in.x3 " " " " " " " " " " 1 00 5978 3 in.x3 " " " " " " " " " " " " 1 00 5978 3 in.x3 " " " " " " " " " " " " " " " 1 00 5978 3 in.x3 " " " " " " " " " " " " " " " " " " "				44			**	**						10000
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5959 3½ in.x5 " " " " " 1 70 5960 3½ in.x8 " " " " " " 1 80 5961 4 in.x6 " " " " " " 1 70 5962 4 in.x8 " " " " " " " 2 25 WHITE OR RED FLANNEL BANDAGES. 5963 1½ in.x3 Yards White or Red Flannel Bandages per doz.\$ 1 25 5964 2 in.x3 " " " " " " " 1 50 5965 2 in.x8 " " " " " 1 75 5966 2½ in.x3 " " " " " " 1 75 5966 2½ in.x3 " " " " " " 1 75 5967 2½ in.x8 " " " " " 1 75 5968 3 in.x4 " " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5969 3 in.x8 " " " " " 1 75 5970 3½ in.x5 " " " " 1 4 00 5971 3½ in.x5 " " " " " 1 4 00 5971 3½ in.x8 " " " " " 1 50 PLASTER PARIS BANDAGES. 5973 1 in.x3 Yards Best Plaster Paris Bandages per doz.\$ 70 5976 2 in.x3 " " " " " " 1 00 5976 2 in.x3 " " " " " " 1 00 5977 2 in.x6 " " " " " " 1 00 5977 2 in.x6 " " " " " " 1 00 5978 2½ in.x3 " " " " " " 1 00 5979 2½ in.x3 " " " " " 1 00 5980 3 in.x3 " " " " " " 1 40 5980 3 in.x3 " " " " " " 1 40 5980 3 in.x3 " " " " " " 1 25 5984 1 " Hydronaphthol " " " 25 5985 5 " Salicylic Acid " " " 25 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " " " 50 " " 40							**	- 66						
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1 70 1		21/2	in x8	"										
### WHITE OR RED FLANNEL BANDAGES 1				66			**	44			day.	"		
### WHITE OR RED FLANNEL BANDAGES. 1				44			**	46				66.	1977	
\$ 1 in.x3	33	-		WHIT	E OR	RED I	FLAN	NEL I	BA	NDA	GES.			-3
\$ 1 in.x3	5063	11/2	in.x3	Yards	White	or Red	Flan	nel Ban	da	res.		per doz	8 1	25
5965 2 in.x8 " " " " " 3 75 5966 2 ½ in.x3 " " " " " " 4 45 5967 2 ½ in.x8 " " " " " " 4 45 5968 3 in.x4 " " " " " " 3 00 5969 3 in.x8 " " " " " " 5 00 5970 3 ½ in.x5 " " " " " " 4 40 5971 3 ½ in.x5 " " " " " " 5 50 5972 4 in.x6 " " " " " " 5 50 5973 1 in.x6 " " " " " " 5 50 5974 1 ½ in.x3 " " " " " " " 1 00 5975 1 ½ in.x3 " " " " " " 1 00 5976 2 in.x3 " " " " " " " 1 00 5977 2 in.x6 " " " " " " 1 25 5978 2 ½ in.x3 " " " " " " " 1 25 5978 2 ½ in.x3 " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 00 5981 3 in.x6 " " " " " " " " 1 00 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " " " 25 5985 5 " " " " " " " " " 25 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " " 50 " " " " " " " 40										500				100
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5967 2½ in.x8 " " " " 4 45 5968 3 in.x4 " " " " " " 3 00 5969 3 in.x8 " " " " " 4 40 5970 3½ in.x5 " " " " " " 4 00 5971 3½ in.x5 " " " " " 5 50 5972 4 in.x6 " " " " " 5 50 PLASTER PARIS BANDAGES. 5973 1 in.x3 Yards Best Plaster Paris Bandages per doz.\$ 70 5974 1½ in.x3 " " " " " " 1 00 5976 2 in.x3 " " " " " " 1 00 5976 2 in.x3 " " " " " 1 00 5977 2 in.x6 " " " " " " 1 25 5978 2½ in.x3 " " " " " " 1 25 5978 2½ in.x3 " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 00 5981 3 in.x6 " " " " " " " " 1 00 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5984 1 " Hydronaphthol " " " " 25 5985 5 " " " " " " " " 25 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " 40					**		**		"			"	950	
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5970 3½ in.x5 " " " " " 4 00 5971 3½ in.x8 " " " " " " 5 50 5972 4 in.x6 " " " " " " 5 50 PLASTER PARIS BANDAGES. 5973 1 in.x3 Yards Best Plaster Paris Bandages per doz.\$ 70 5974 1½ in.x3 " " " " " 75 5975 1½ in.x5 " " " " " " 1 00 5976 2 in.x3 " " " " " " 90 5977 2 in.x6 " " " " " " 90 5977 2 in.x6 " " " " " " 95 5978 2½ in.x3 " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " 25 5984 1 " Hydronaphthol " " " 25 5985 5 " " " " " " " " 25 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " 40				46	"	66	66		66					
5971 3½ in.x8 " " " " " 550 FLASTER PARIS BANDAGES. 5973 1 in.x3 Yards Best Plaster Paris Bandages per doz.\$ 70 5974 1½ in.x3 " " " " 75 5975 1½ in.x5 " " " " " 90 5976 2 in.x3 " " " " " 90 5977 2 in.x6 " " " " " " 95 5978 2½ in.x3 " " " " " " 95 5979 2½ in.x6 " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 50 FHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " " 25 5984 1 " Hydronaphthol " " " 25 5985 5 " " " " " " " " " 25 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " 40				**	44		66		"			"	1000	00
PLASTER PARIS BANDAGES. 5973	Control of the Contro			46	**	- 44	"		**			44	5	50
PLASTER PARIS BANDAGES. 5973				**	66	66	44		**					
5974				I	PLAST	TER P.	ARIS	BAND	AC	GES.				
5974	5973	1	in.x3	Yards	Best	Plaster	Paris	Banda	ges	s		per doz	.8	70
5975 1½ in.x5 " " " " " " 90 5976 2 in.x3 " " " " " " 90 5977 2 in.x6 " " " " " " 95 5978 2½ in.x3 " " " " " " 95 5979 2½ in.x6 " " " " " " 140 5980 3 in.x3 " " " " " " " 100 5981 3 in.x6 " " " " " " " 150 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " 25 5984 1 " Hydronaphthol " " " 25 5985 5 " " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " 90		11/2				46								
5976		11/2	in.x5	"	44	4.6	4.6	**				. "	I	
5977 2 in.x6 " " " " " " " 95 5978 2½ in.x3 " " " " " " 95 5979 2½ in.x6 " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " 25 5984 I " Hydronaphthol " " " 25 5985 5 " " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " " 40		2	in.x3	44	**	44	**	"				. "		90
5978 2½ in.x3 " " " " " " " 1 40 5979 2½ in.x6 " " " " " " 1 40 5980 3 in.x3 " " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes each \$ 25 5983 5 " Salicylic Acid " " " 25 5984 I " Hydronaphthol " " " " 25 5985 5 " " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50" " " 40		2	in.x6	"	66	**	46	46				. "	I	5000
5979 2½ in.x6 " " " " " " " 1 40 5980 3 in.x3 " " " " " " " 1 50 5981 3 in.x6 " " " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes. each \$ 25 5983 5 " Salicylic Acid " " " 25 5984 1 " Hydronaphthol " " " 25 5985 5 " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle. per bottle \$ 25 5987 " " 50 " " " 40		21/2	in.x3	**	"	44	"	"				. "		10000
5980 3 in.x3 " " " " " 1 00 5981 3 in.x6 " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes. each \$ 25 5983 5 " Salicylic Acid " " 25 5984 1 " Hydronaphthol " " 25 5985 5 " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle. per bottle \$ 25 5987 " " 50 " " 40			in.x6	44	**	**	66	66				. "	1	
5981 3 in.x6 " " " " " " " " " 1 50 PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxes				44	44	44	46	"				. "		
PHYSICIAN'S SOAP. 5982 5 per cent. Boracic Acid Soap, in tin boxeseach \$ 25 5983 5 "Salicylic Acid " " " 25 5984 I "Hydronaphthol " " " 25 5985 5 " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottleper bottle \$ 25 5987 " " 50 " " 40	5981		in.x6	44								. "	1	50
5983 5 " Salicylic Acid " " " " " " 25 5984 I " Hydronaphthol " " " " " 25 5985 5 " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle					P	HYSIC	IAN'	S SOAF	₽.					
5983 5 " Salicylic Acid " " " " " " 25 5984 I " Hydronaphthol " " " " " 25 5985 5 " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle	5982	5 pe	er cen	t. Bora	icic A	cid Soa	p, in	tin box	es.			each	1 \$	25
5984 I " Hydronaphthol " " " " 25 5985 5 " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle		5	"	Salic	ylic A	cid "			٩,					100
5985 5 " " " " " " " " 25 ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " " 40			"	Hyd	ronap	hthol "						"		
ANTISEPTIC TABLETS. 5986 Corrosive Sublimate Tablets, 25 in bottle per bottle \$ 25 5987 " " 50 " " 40		5	"		66				2			"		
5987 " " 50 " " 40														100
5987 " " 50 " " 40	5986	Cor	rosive	Sublir	nate T	ablets,	25 iI	bottle			[er bottle	\$	25
5988 Hydronaphthol " 100 " " 35			66	4.6			50					"		40
	5988	Hy	drona	phthol]	100	"				155		35

ANTISEPTIC TABLETS-Continued.

5989	Sponges	Antisepti	c			small	doz.,	\$1 0	o to	1	50
5990	"	"									50
5991	44	**				large	"	4 0	o to	7	50
5992	"	"	flat for O	varian	Surger	y	"	1 0	o to	2	50
5993	"			44			"		o to	2	00
5994	44	Antiseptic	(1/4 doz.)	in jar				per	jar		05
5995	Spongio	Pilene, 36	inches wi	de				per y	rard	5	00

Fig. 5996-THE SEABURY ACCIDENT CASE-\$4 00.



Case Closed.
Size of Case closed 8¾ x 5¾ x 3¾ inches.

The Seabury Accident Case, one view of which is presented above, is designed largely as an accessory in rendering that "First Aid to the Injured,' in which the medical profession so willingly encourage laymen, as a means of relieving suffering, and even saving lives imperiled by accident. At the same time, it contains a complete outfit for all ordinary surgical cases, sufficient, at least,

to enable the surgeon who may be at hand to dress injuries promptly and safely, without incurring the dangers of delays necessary to procure these appliances from his office or from hospitals or drugstores, or in the removal of the injured to hospitals or elsewhere, before their wounds can be dressed.

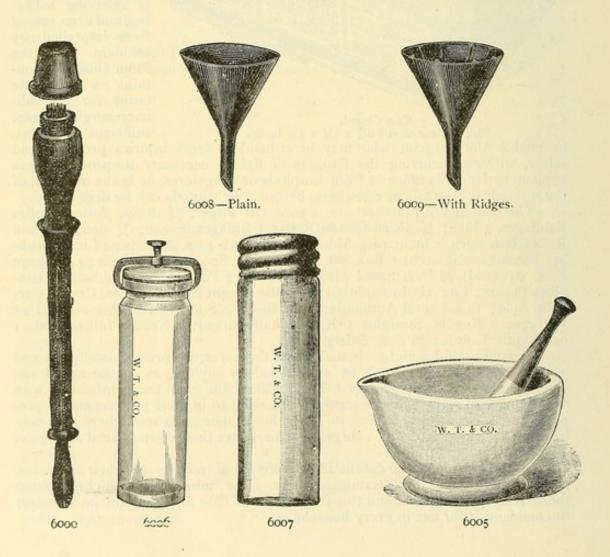
The contents of the case are: I yard Oil Paper; ¼ dozen Cotton Roller Bandages, 3 inch; ¼ dozen Cotton Roller Bandages, 2 inch; ¼ dozen Cotton Roller Bandages, 1 lnch: I oz. Absorbent Cotton; I oz. Absorbent Lint; I Rubber Bandage, Esmarch; I Box Silk and Wax; I Sponge, Antiseptic; I Package Pins, pyramid; ½ inch Spool Mead's Adhesive Plaster; ½ inch Salicy. Isinglass Plaster; I oz. Hydronaphthol; I Bottle Catgut Ligature; I oz. Crystal Carbolic Acid; I oz. Liquid Ammonia; I oz. Bi-Carb. Soda; I Pair Scissors; I Pair Forceps; I Needle Straight; I Needle half curved; I Needle full curved; I oz. Styptic Cotton; ½ doz. Safety Pins.

Around the sides and ends, and inside the cover, are printed intelligent and simple directions, which can be understood by any one, as to the use of the contents in various emergencies. These will enable even those unfamiliar with the dressing of wounds, to promptly afford relief to injured persons and to prepare them for comfortable removal to the hospital or elsewhere, where they may be placed under the care of a surgeon, or to relieve their distress until a surgeon arrives.

On the bottom of the case is a complete list of poisons and their antidotes, with directions for administering the latter. The antidotes are all chosen from those readily obtainable, and this feature of the case alone should be sufficient to commend it for use in every household.

MISCELLANEOUS GOODS.

FIG.	Of the Control banks are an accompanies of the Control of the Cont		
*6000	Baunscheidt Instrument\$	I	85
6001	" Oil(per bottle)	I	35
6002	Minim Graduateseach		25
6003	One and two drachm Graduates "		15
6003	" ounce ""		15
6003	Two " ""		20
6003	Four " "" "		30
6003	Eight " " "		40
6004	Glass Mortars and Pestles, from	I	00
*6005	Wedgewood Mortars and Pestles, from4oc. to	3	50
*6006	Specimen or Museum Jars, one pint		50
*6006	" one quart		75
*6006	" half gallons	I	00
*6006	" " gallon	I	50
*6006	" " two gallon	2	00
*6007	Screw Neck Tube Vials, with nickel plated tops, per doz., 25c. to		50
*6008	Papier Maché, in funnels, plaineach 20c. to		95
*6009	" " with ridges " 25c. to	1	00
6010	Glass Funnel " 10c. to		35
6011	" Feeding Dishesper doz.	3	00
		-	



SUPPLEMENT.

Prices in this whole Catalogue Strictly Net, except where otherwise stated.

MISCELLANEOUS INSTRUMENTS—General Operating.

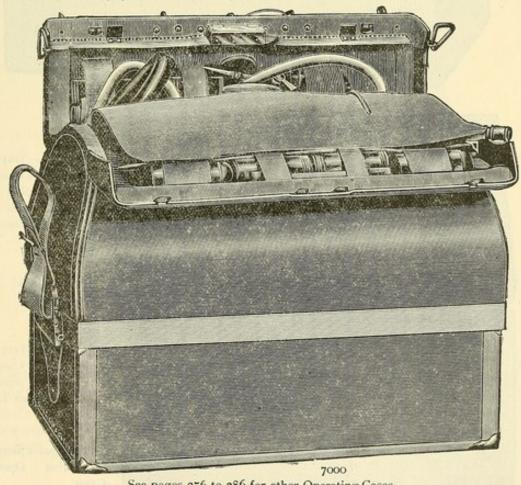
Fig. 7000. Dr. Ap Morgan Vance's (Louisville, Ky.) Complete Emergency Operating Case, contains a more complete line of instruments, dressings, etc., than any one case yet put up. The lower half of the case contains the steel instruments, knives, forceps, etc., blocked in four wooden trays (see Figs. 7001, 7002, 7003 and 7004). These wooden trays fit snugly into hard rubber trays, which are used during an operation to hold solution and instruments (as shown in Fig. 7004). These trays are 16½ inches long, 9½ inches wide, and 1¾ inches deep.

These set of trays in case can be separated from the upper part of the case.

The upper part of case contains the surgical dressings, medicines, and all nec-

essaries of an "Emergency Case."

See following pages for description.



See pages 276 to 286 for other Operating Cases.



Fig. 7000.—Dr. Ap Morgan Vance's Emergency Case-Closed.

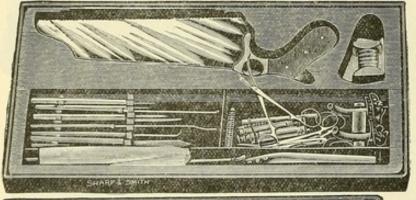


Fig. 7001.—Tray for Dr. Vance's Case containing Capital Saw, Needles, Silk and Artery Instruments.

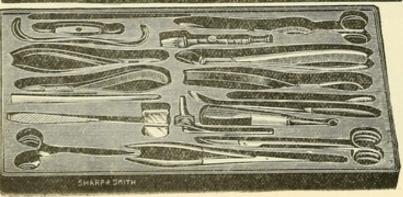
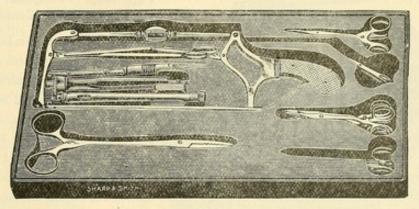


Fig. 7002.—Tray for Dr. Vance's Case containing Trephining and Necroses Instruments.

See pages 276 to 286 for other Operating Cases.



7003

Fig. 7003.—Tray for Dr. Vance's case containing Bow saw and Hæmostatic Forceps and Instruments.

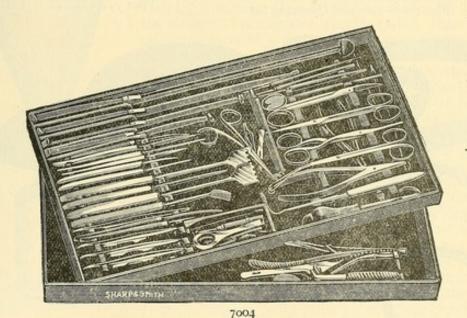


Fig. 7004.—Showing Wooden Tray, also Hard Rubber Tray, which holds the Wooden Trays, holding amputating Knives, Forceps, Scissors and a general assortment of Instruments.

This case complete contains over 200 instruments. We do not furnish list of contents herewith because these cases are generally put up according to each doctor's selection, adding whatever instruments he may have on hand. Dr. Vance's capital idea is what we desire most to call attention to. All instruments are with smooth Metal Handles thereby aseptic, and are blocked in oiled "Hard Wood" which prevents the instruments from rusting.

See pages 276 to 286 for other Operating Cases.

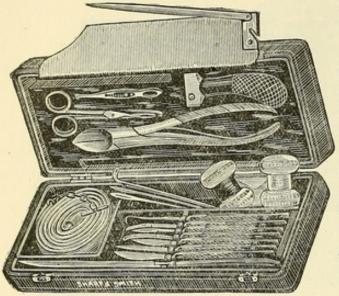


Fig. 7005—Compact Operating Set.

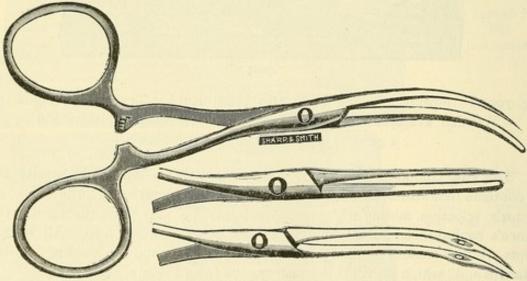
Fig. 7005. — Compact Operating Set (New). Contains:

Amputating Saw, pair Bone Forceps with Spring, Spring Catch Artery Forceps, Bulldog pattern, pair Plain Dressing Forceps, pair Curved Scissors, Esmarch's Tourniquet, Med. Amputating Knife, two Amputating Scalpels, Straight Bistoury, Curved Sharp Bistoury, Peters' Hernia Knife, Tenotomy Knife, Tenaculum, pair Silver Probes, Needles, Silver Wire, Aneurism Needle and Director. Put up in a velvet-lined Morocco covered case, 11x4¼x2¼.

Price\$21 00



Fig. 7006—Esmarch's Tourniquet, with 3 yards Red Webbing. (See Fig. 1194, page 308, for manner of Application).



Figs. 7007, 7008 and 7009—Allis' Haemostatic Forceps, with Scissor Handles.

See pages 276 to 332 for other General Operating Instruments.

*7005	Compact Operating Case\$21	00
	Esmarch's Tourniquet with 3 yards Webbing 2	
*7007	Allis' Acupressure Forceps, curved 2	
*7008	" " straight 2	25
*7009	" Suture " curved 2	25
*7010	Dr. Henry Flood's Anæsthetic Inhaler 7	50

[Extract from the Medical Record, June 8, 1889.]

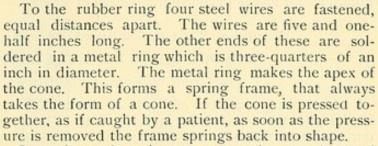
NEW ANÆSTHETIC INHALER, BY HENRY FLOOD, M. D., ELMIRA, N. Y.

The inhaler consists of two parts, a cone and bottle to hold the anæsthetic.

The cone is made of a soft rubber ring, five inches in diameter. The rubber ring is soft, and will not injure or be uncomfortable for the patient. It is

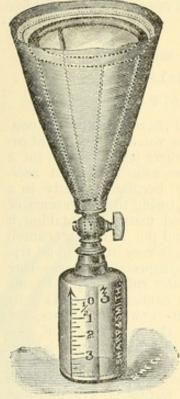
pliable enough when slight pressure is used, to adapt

itself to the contour of the face.



It requires only a minute or two to pin a towel around the frame, which should be done with safety pins, or, what is more convenient, I have made a hood of toweling which fits the cone. The hood is easily pulled over the frame and pinned at the base of the cone.

To prevent air passing through the meshes of the toweling there is a second hood made of soft rubber cloth. The rubber hood is pulled over the toweling. The rubber hood is longer than the cone, leaving a free border of an inch or more which lies on the face. During inspiration the rubber cloth acts as a valve and prevents air from rushing under the cone. When the cone and rubber hood are pressed tightly to the face, air can be entirely excluded from the cone. If air is wanted pull up the rubber hood, and it will pass through the meshes of the toweling.



7010

The ring at the apex of the cone has threads cut into it to screw the cork of the anæsthetic bottle into the cone. The metal cork also screws into the anæsthetic bottle. The metal cork has a stopcock to turn off or on the anæsthetic. Through the cork are two holes which pass through the bottle-end and through the stopcock, where each of the two holes divides and turns so as to open at the lower edge of the cork, thus distributing the anæsthetic, which passes through the cork in four directions, and throws it inside of the cone against the toweling.

A small piece of absorbent cotton pushed into the apex of the cone, will

prevent the anæsthetic from dripping into the patient's face.

The anæsthetic bottle holds four fluid ounces and is graduated so that at any time the amount of anæsthetic that has been used in the cone may be known. When the bottle becomes empty it is easily unscrewed, refilled and replaced without removing the cone from the face.

MISCELLANEOUS GOODS—General Operating.

A NEW ANÆSTHETIC INHALER.—Continued from preceding page.

The inhaler is easily taken apart and cleaned, the soiled towel or hood is to be thrown aside to be washed, and a clean one is to take its place; the frame and bottle should be washed, and each part of the inhaler can be treated with an antiseptic fluid. This a is very important feature when practising antiseptic

surgery, especially in operations about the face and neck.

The anæsthetic can be given as rapidly or as slowly as desired. The stop-cock gives absolute control over the quantity put into the cone, and prevents a large amount of waste, requiring one-fourth to one-half as much as is generally used. I have produced complete anæsthesia with chloroform in less than three minutes, and with ether in from four to seven minutes. I have kept patients anæsthetized undergoing capital operations, for nearly an hour, using less than a fluid ounce of chloroform; and in severe and painful operations for forty-five minutes with less than four fluid ounces of ether.

[Extract from "The Medical Record," New York, May 11, 1889.]

A MODIFIED ALLIS' ETHER INHALER.

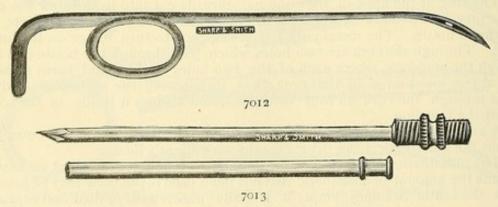
BY JOSEPH W. EDDY, M. D., OSWEGO, N. Y.

After using a number of kinds of ether inhalers, I have come to the conclusion that the Allis inhaler is the best; there being no valves to get out of order, and the construction is simple; but I found that where it was needed for a

SHARP & SPITH

number of patients, as in a railroad accident, it generally became too dirty in a short time to use, owing to the presence of saliva and vomited matter, and taking it apart to clean and put in a new canton flannel bandage was very tedious and trying to the hands, especially in removing and putting on the rubber cap. In my modification the canton flannel is not threaded through between the bars, but slipped over as the top comes off, and

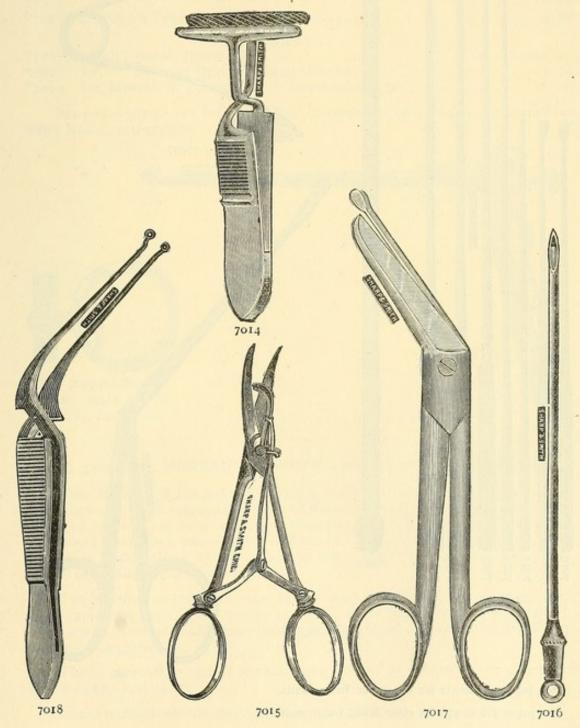
then in place of the rubber cap over the bars, I use a black patent leather jacket, over one end of which is slipped a rubber face piece, which has the end going over the patent leather jacket distended by a metal ring or band so that there is no trouble in introducing it over the jacket. Surgeons will find that this inhaler can be taken apart, and the bandage changed in few moments.



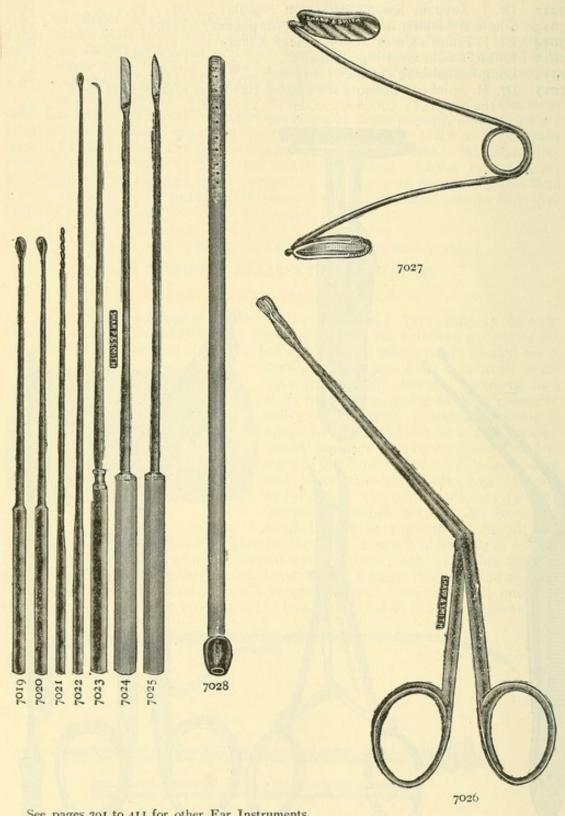
See pages 276 to 332 for other General Operating Instruments.

MISCEL	LANE	OUS	INSTR	UMENTS.
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FIG.			
*7011	Dr. Jos. W. Eddy's Modified Allis Ether Inhaler\$	9	00
	Dr. J. Suydam Knox's Perineum Needle	-	75
	Single Reversible all metal Trocar for pocket		75
	Dr. J. Frank's Cross Action Artery Clamp		
*7015	Piffard's Skin Grafting Scissors	7	50
*7016	Long Embalming Needles (10½ in.)	1	25
*7017	Dr. M. Spicker's Scissors for cutting bandages of any kind from		
	the body	2	50



MISCELLANEOUS INSTRUMENTS-Ear and Nasal.



See pages 391 to 411 for other Ear Instruments. See pages 412 to 476 for other Nasal Instruments.

M	IISCELLANEOUS INSTRUMENTS—Ear and Nasal.
*7018	Dr. F. C. Hotz' Curette Forceps for removing granulations from the Tympanic cavity (see page 905)\$ 4 50
*7019	Dr. F. C. Hotz' Ear Spoon, long, metal handle 50
*7020	" " Curette " " " 50
7021	" Cotton Carrier 50
*7022	" Probe, flexible, pure silver 75
*7023	" Tenaculum 60
*7024	" Knife for operations on membrana tympani 1 10
*7025	" " " " " " … 1 10
*7026	Durham's Fenestrated Ear Forceps 4 50
	NASAL.
*7027	Smith's Nasal Speculum\$ 1 25
*7028	Dr. P. Norman Bridges' Nasal Douche 1 50
*7029	Dr. Moreau R. Brown's "Ecchondrotome 10 00
So	e pages toy to avy for other Far instruments and pages avate as for

See pages 391 to 411 for other Ear instruments, and pages 412 to 446 for other Nasal instruments.

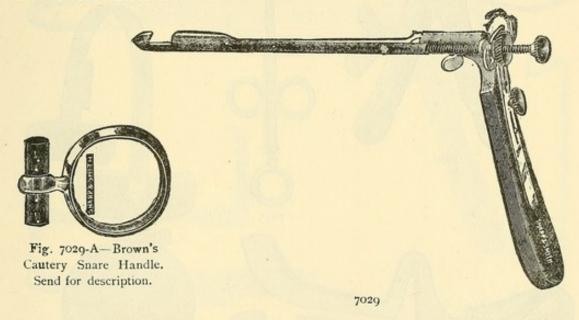


Fig. 7029.-DR. MOREAU R. BROWN'S NASAL ECCHONDROTOME.

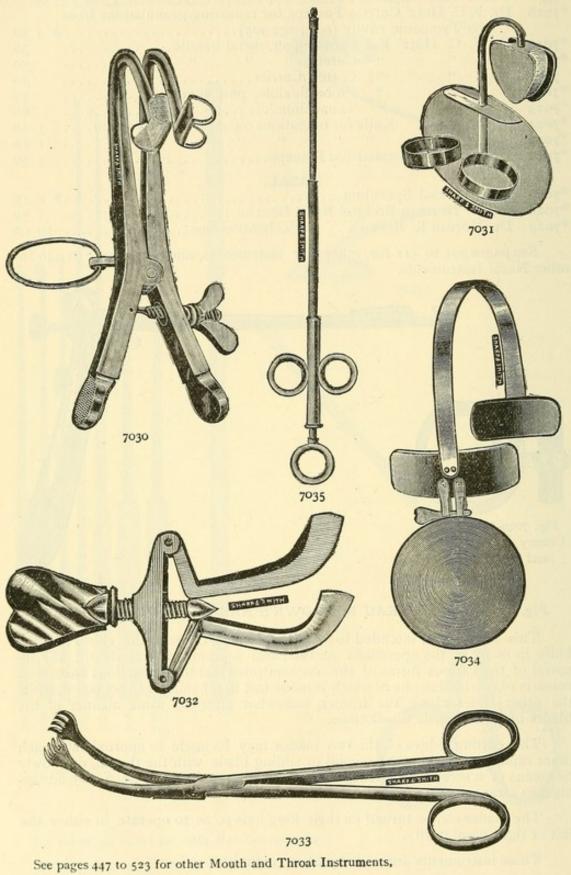
This instrument, intended to take the place of the saw, the chisel and the knife in many of the operations on the nasal septum, particularly for the removal of the various forms of the ecchondroses and the cancellous exostoses, consists of two blades, one of which is made fast to a handle by a set screw, while the other slides along the former, somewhat after the same manner of the blades of a Mackenzie tonsilotome.

The cutting edges of the two blades may be made to approximate each other rapidly by pushing the second or sliding blade with the thumb, or slowly by means of a screw; experience having demonstrated that to be a very advantageous arrangement.

The blades can be turned on their long axis so as to operate in either the left or right nasal cavity.

These instruments are made by Sharp & Smith,

MISCELLANEOUS INSTRUMENTS-Mouth and Throat.



MIS	SCELLANEOUS INSTRUMENTS-Mouth and Throa	at.
*7030 *7031 *7032 *7033 *7034 *7035 *7036 *7037 *7038 *7039 *7040 *7041 7042 7043	Allingham's Mouth Gag (Annandale's)	5 25 2 00 4 50 3 00 1 50 2 00 7 50 1 50 2 00 7 75 4 50 4 50
	Turnessian Control of the Control of	
0-	7036 7037	
5	7038	OHRETONE
<u>e</u>	7039	
	7040	7041

See pages 447 to 523 for other Mouth and Throat Instruments.

INTUBATION.

1 O'Dwyer's Tube Introducer (2731, Fig. 2) Page 510.
1 "Extractor (2734, "4)
1 "Scale (2733, Fig. 3) Page 510.
1 "Gag (2730, "1)
5 Hoadley's Intubation Tubes with Epiglottis.

7045 I and 3. Hoadley's Intubation Tubes with Epiglottis, Gold Plated.....each 2 50

DEEP TUBING OF THE LARNYX AS A SUBSTITUTE FOR INTUBATION,

WITH A REPORT OF NINE CASES, AND PRESENTATION OF NEW INSTRUMENTS.

Read before the Chicago Medical Society, March 7, 1887, by Dr. A. E. Hoadley, M. D., Professor of Anatomy, Chicago College of Physicians and Surgeons, Professor of Surgery in the Chicago Policlinic, Etc.

In April, 1886, I became convinced that intubation of the larynx was a justifiable surgical procedure, and a valuable substitute for tracheotomy in selected cases. I therefore procured a set of the O'Dwyer instruments and tubes. Although I had handled the tubes, and seen them introduced, and a year previous had introduced them myself on the cadaver, I did not until this time give serious consideration to the position of the tube after the introduction. I had no difficulty in coming to a conclusion in this matter. From my knowledge of the larynx, and the contour of the head of the tube, I decided the head of the tube was designed to rest within the larynx, with its projecting flange resting upon the false vocal cords, with the straight part of the tube

behind, resting against the posterior straight wall of the larynx (Fig. 1).

It is not until I had in this manner tubed five cases that I was informed that it was not the design of the inventor, Dr. O'Dwyer, to have the head of the tube rest within the larynx, but on the contrary to have the flange project laterally and posteriorly above the opening into the larynx, resting upon the arytenoid cartilages behind, and the aryteno-epiglottidian folds on each side, with the head of the tube in such a position that when the epiglottis is closed, it would come in direct contact with the tube, closing its orifice, but allowing its flange to project beneath it (Fig. 2). It now became necessary for me to either acknowledge my error and turn the tube around, or justify the position, and claim an improvement. I examined the five cases and was fully convinced that the deep position was at least worthy of further trial. I can now present a summary of nine cases which I have thus treated. Seven of the operations were performed for other physicians: for Drs. R. N. Hall, G. M. Emrick, E. E. Holroyd, W. Rittenhouse, and Caldwell. Two had been performed where there had been no physician in attendance until I was called, and found it necessary to tube immediately. I have not as yet had an opportunity of watching the patients as closely as I could desire, and from the main facts relative to the subsequent behavior of the patients I am indebted to the physician in attendance. Of the two cases above referred to, I saw one six hours after the operation. She was perfectly comfortable as far as breathing and wearing the tube were concerned. The other died twelve hours after the operation, before I saw her a second time.



7045—Fig. 1. Deep Tubing.

The ages of the patients ranged from two to six years. All had diphtheritic laryngeal stenosis. They were all bad cases, and all died in from twenty-four hours to four days after the operation. The stenosis was promptly relieved in all. Eight out of the nine were able to drink several consecutive swallows immediately after the operation, and continue to do so as long as they could swallow. The eight suffered little or no pain from the presence of the tube, nor was the cough particularly troublesome. Four coughed but very little. In one, the presence of the tube in the larnyx did not excite cough; on the contrary, there was less coughing than before the tube was introduced. In one case the tube was coughed out, and a larger tube was introduced, which remained until the child died from extension of the exudate below the tube. In no case was there subsequent obstruction above the tube. In one case the obstruction seemed to be in the fauces and pharynx, and I feared that tracheotomy would be necessary, but "deep tubing" gave prompt relief. In two cases, while pressing the tube down deep into the larynx, it was felt to slip by an obstruction and pass beyond reach. In these two cases I believe the head of the tube was lodged in the ventricle of the larynx, resting upon the true vocal cords.

(See pages 510 to 516 for other Intubation Apparatus.)



7045-Fig. 2. Intubation.

There was no unusual inconvenience from the presence of the tube in this situation. moved the tube in one of these cases, and I had as little difficulty as in any, which I think would be equally true had the child been living. I might state while giving this opinion, however, that

I have never extracted a tube from the living subject.

One case suffered severe and continual pain from the presence of the tube, and could not drink one drop without strangling, and having a violent fit of coughing following the attempt. She was fed by means of a tube in the œsophagus. She died on the fourth day from pneumonia, the development of which was probably favored by the irritation of the tube. This was Olga L., a girl five years of age, a patient of Dr. Emrick's. About two years previous, she swallowed, by mistake, some concentrated lye, causing extensive destruction of the tissue, followed by violent inflammation. After a long and desperate struggle she recovered her general health; but there remained two almost impervious strictures of the œsophagus. She had been under my care six months for the surgical treatment of the strictures when she contracted diphtheria, for relief of which the "deep tubing" was practiced. It was to these changes in the pharynx and œsophagus caused by the lye that I attributed her intolerance of the laryngeal tube.

In comparing the two methods of introducing the tube, I would call attention to what I regard as the most objectionable feature of the O'Dwyer method. It is the projection of the head of the tube over the top of the larynx in such a manner that it prevents the glottis from folding down and adapting itself to the top of the larynx in the usual manner. This leaves a margin of laryngeal mucous membrane exposed which has been in the habit of being covered at every act of deglutition. The projections of the tube do not cover it perfectly, so that in every act of swallowing the food is allowed to come in contact with this surface, which is excessively sensitive to everything but air, and must necessarily excite coughing. I have no doubt but what the glottis will close the orifice of the tube perfectly, thus preventing any food from getting into the tube, but it cannot close the larynx by the side of the tube, and food, fluids especially, are forced into the larynx, thus causing the most distressing paroxysms of coughing at every attempt at swallowing. All this is obviated by the method that I have adopted, as the head of the tube is within the larynx and well below the opening, so that the glottis does not touch the tube, and can therefore perfectly guard the larynx.

In reference to the removal of the tube, it is my opinion that the tube can be more quickly engaged by the extractor while it rests within the larynx, than while the head of the tube rests above the larynx. The head of the tube being surrounded by the upper extremity of the larynx, greatly facilitates the operation, as it is not easy to get the extractor down by the side of the tube which is the source of the greatest annoyance with the tube in the high position. With reference to the danger of introducing the tube into the trachea, I would state that it is certainly a remote danger, as any one will admit that attempts to push the head of a well-fitting tube beyond the

The modifications in the tube that have suggested themselves for the better adaptation of this mode of intubation, and which have been constructed for me by Sharp & Smith, of Chicago, are:

Shortening the tube to the length of the larynx, or perhaps a trifle longer. (Figs. I and 3).

Making the head of the tube conform more nearly to the shape of the interior of the upper part of the larynx.

> Making the upper surface of the head of the tube slightly cup-shaped for the purpose of favoring the introduction of the extractor.

> Having that portion of the posterior border of the tube, which corresponds to the arytenoid cartilages, stand on a plane anterior to that of the rest of the tube, so that the pressure at this point may be slight. As the arvtenoids are supported by muscles, we should avoid putting them on the stretch, constructing the obturator so that it will project three-eighths of an inch from the lower end. My tube, being a little shorter than the most convenient length for introduction, the longer tip of the obturator enables one to pass the tip to the proper position below the chink, when the tube should be detached, and pressed home with finger before the obturator is withdrawn.

> The greatest objection to using the tubes of the present construction for "deep tubing" is their length. The O'Dwyer tubes (Fig. 4) when placed deep in the larynx will reach to the seventh ring of the trachea, as shown by an autopsy. This, owing to the mobility of the lower end of the tube in the

Fig. 3. trachea in the varying positions of the neck, is a source of irritation exciting cough, and inducing pain. One of my patients would invariably point to that locality when asked to locate the tube. I am now, however, having my tubes made a trifle longer than shown in cut.

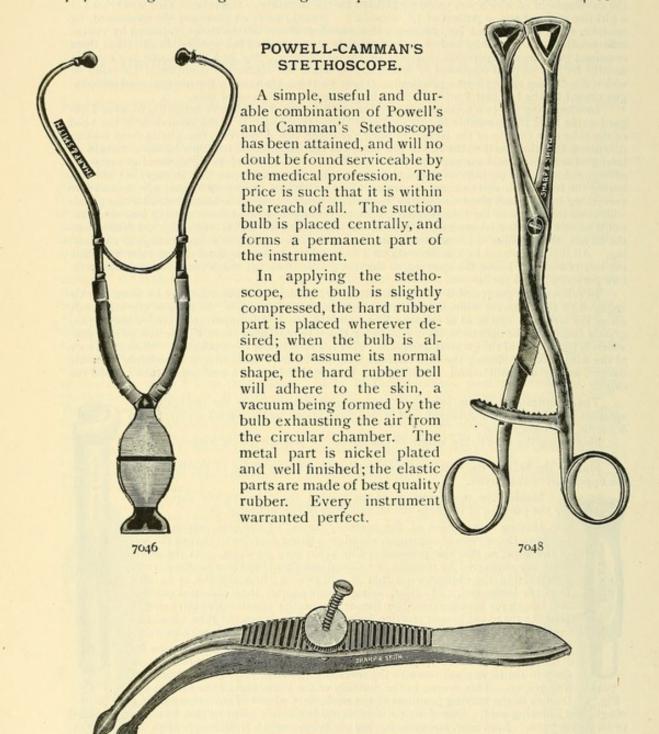
Finally, I would recommend "deep tubing" of the larynx as being preferable to "intubation," even though the long tubes are used, holding that long tubes are preferable only in very exceptional cases.

No. 683 Washington Boulevard, Chicago, Ill.



MISCELLANEOUS INSTRUMENTS-Mouth and Throat.

FIG.			
*7046	Powell's Modification of Camman's Stethoscope	\$2	25
*7047	Burrows' Trachea Dilator	2	00
*7048	Faenger's Tongue Holding Forceps	1	00

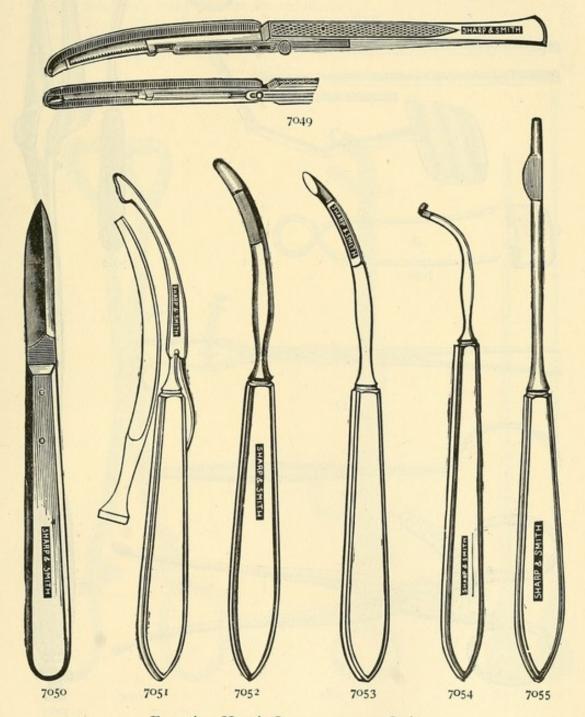


Prices in this entire Catalogue are strictly net, except where otherwise stated.

7047

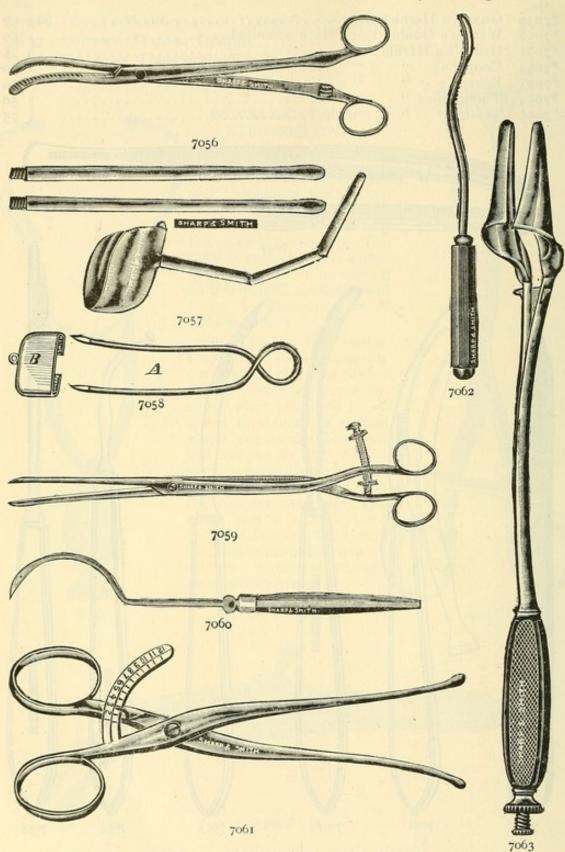
MISCELLANEOUS INSTRUMENTS-Hernia.

FIG.																				
	Guarded He																			
*7050	Warren's Do	uble	Edge	He	eri	ni	a	S	ca	lp	el								I	50
*7051	Grimala's H	ernia	Knife			٠.						 	 						3	75
*7052	Cooper's	"	44										 	 					I	50
*7053	Belmay's	44	46									 	 	 					I	50
*7054	Thompson's	**																		50
*7055	Tesse's	"	"																	75



For other Hernia Instruments see Index.

MISCELLANEOUS INSTRUMENTS-Gynæcological.



For other Gynæcological Instruments see Index.

FIG.	MISCELLANEOUS INSTRUMENTS—Gynæcological.
*7056 *7057	Skene's Compression Forceps\$4 50 Byford's Uterine Elevator (for use with finger)
*7058	Borck's Cyst Elevator
*7059 *7060	Cushing's Pelvic Abscess Dilating Forceps and Trocar 4 00 Ludlam's New Perineum Needle
*7061	Vagrometer 3 00
*7062 *7063	Harris' Counter Pressure Instrument
*7064	Pean's Wide Hæmostatic Forceps 3 00
*7065 *7066	Maur's Polypotome
*7067	" " Probe

For other Gynæcological Instruments see Index.

7064

7065

7066 7067

MISCELLANEOUS INSTRUMENTS—Gynæcological.

STERILITY: INTRODUCING A NEW INSTRUMENT FOR ITS CURE.

By P. E. OUTERBRIDGE, M. D., Assistant Surgeon to the Woman's and New York Cancer Hospitals; Attending Gynæcologist to the Demilt Dispensary.

An apology may seem in order for drawing the attention of the reader to a subject which is touched upon in most of the gynæcological textbooks of the present day, and with which every gynæcologist is supposed to be familiar. But at the present time there is a decided tendency to study with care only those things that are entirely new. I am aware that in taking up this topic I shall have to go over some old ground, but I trust, nevertheless, to be able to throw a little light on this rather old and threadbare subject. My connection with two of the largest clinics for diseases of women in this city has brought before me the frequency of the existence of sterility and its unhappy consequences, a condition, the amelioration of which must be apparent to all; moreover, I have found it to be the fact that by a large majority of the patients at the clinics sterility is often regarded with shame, not unmixed with a feeling of disgrace, ideas quite contrary to those entertained by patients among the better educated class, in whom superior training has lessened these ancient convictions, for we know that among the old Romans a barren wife was considered a cause for separation. The patients, therefore, who come to consult for this condition, often fail to mention the subject directly, in the hope that something may be done to bring about the possibility of conception. It is only, therefore, by close and careful questioning that we elicit from them the real object of their visit.

In cases that give this history some other reason is always found, but it is nevertheless possible that it may be due to some constitutional trouble which impairs the general condition, or from lack of food or exercise the parenchyma of the uterus and appendages is weakened and so rendered incapable of developing and sustaining a healthy ovum; but I believe this to be of rare occurrence. In my opinion the absence of proper conjugal feeling will almost invariably be found to be of local origin, and if diagnosed correctly and treatment be carried out intelligently, at least in seventy per cent. of the cases our efforts to cure will prove successful.

It must be remembered that sterility may exist in the male as well as the female, even though the sexual relation appears normal, and after a careful examination of the female, and no cause can be found for the existing condition, an examination of the male should not be omitted. I will not at present enter into detail as to how this should be conducted, but will simply state that with the microscope and other modern appliances a diagnosis can very easily be made. The reader can readily understand, if such a condition exist, it would be a great injustice to subject the female to prolonged treatment, even if she have some slight trouble.

Recognizing the many difficulties to be overcome, first, in obtaining the history, and next, in following out any of the lines of treatment suggested in the textbooks, which in many instances, are extremely difficult and in the end perhaps futile, I thought if some very simple means could be devised by which the two vital elements could at least be brought together, the probability of the desired result occurring (viz., pregnancy) would be increased fully fifty per cent., and so solve this difficult problem. It is unnecessary at present to mention the various operations and surgical appliances devised to accomplish this simple thing, for the reader is doubtless perfectly familiar with them, and knows or believes that, in a large majority of cases, a successful result is not obtained.

DR. OUTERBRIDGE'S INSTRUMENT-Continued.

The instrument I introduce in the following cuts is a very simple affair, consisting of a continuous steel wire made so as to form an anterior and posterior blade, with a slight eversion at one end, and at the other is bent at right angles. This shape adapts it admirably for the position it is to occupy in the cervical canal. The instrument is entirely self-retaining, and in consequence of its form, is not liable to change position. If, however, this should occur, it shows that it is not adapted to this special canal, and the operator can, with a

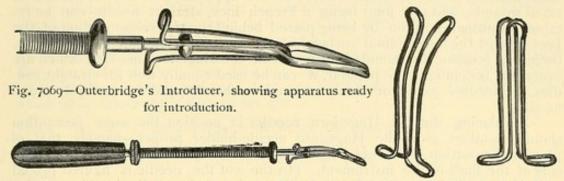


Fig. 7070—Outerbridge's Introducer, showing Dilator inserted, Fig. 7068—Outerbridge's Diand Introducer being withdrawn.

small forceps, bend it to meet requirements. The dilator varies in length from one to three inches. The wire should be bent as desired, then tempered to give sufficient power, and heavily silver or gold-plated. This makes it perfectly clean—in other words, renders it safe. The first instrument I made by simply taking a hair pin and bending it into the required shape; this was used shortly afterward, being scraped and cleansed thoroughly with soap and water, and introduced with a plain dressing forceps, the uterus being steadied by a tenaculum.

This primitive instrument, of course is very much less effective, and apt to be even dangerous on account of its non-elasticity and possible accumulation of rust, whereas the present instrument is both yielding and aseptic.

The patient was allowed to go home with this instrument *in situ*, with the effect of relieving the dysmenorrhœa from which she suffered, and inducing conception immediately after the next menstrual period.

For introduction, the patient may rest either in Sims' position or on the back, if using a bivalve speculum. The dilator is then put in the grasp of an instrument made especially for this purpose, such as is seen in the accompanying cuts. It is about ten inches long, and consists of two small steel blades, crescentic in shape, slightly curved and about half an inch in length, which at the end fall together, making it similar to a slightly flexible blunt probe. There is a small place between these two blades, which gradually increases in size for two-eighths of an inch, then grows smaller and coalesces in a slightly flexible rod which is about an inch long, smooth and round; on this there is a movable ball; the blades are shaped to hold and compress the smaller or inner end of the dilator, and being movable, can be adjusted to any sized instrument that may be required.

I claim for this instrument that it dilates the cervical canal, making it possible in every instance, after copulation, for the semen to gain admission to the uterine cavity, thus bringing the male and female vital principles together with certainty.

For further description of these instruments, see "Medical Record," April 20, 1889.

MISCELLANEOUS INSTRUMENTS-Gynæcological.

[Extract from the New York "Medical Journal," May 18, 1889.]

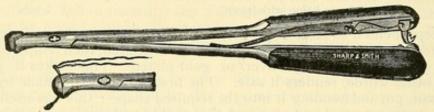
A NEW NEEDLE HOLDER FOR ALL KINDS OF NEEDLES.

By W. W. Van Arsdale, M. D., Instructor in Surgery N. Y. Polyclinic; Attending Surgeon Eastern Dispensary.

Presented before the Section in Surgery of the New York Academy of Medicine, April, 1889.

The jaws of the needle-holder represented in the accompanying cut work on the principle of Dr. G. R. Fowler's instrument, of Brooklyn. They are made smaller, however, so as to facilitate the application of buried sutures in small wounds, and the joint being a French lock, straight needles can be retained in proper position by being placed behind the transverse portion of the jaws against the longitudinal surfaces of the shafts. While the needle-holder, therefore, is especially intended for use with the Hagedorn needles, which are every day becoming more popular, it can be used equally well for straight needles, for needles partly or wholly curved on the flat, and for perfectly round needles.

In placing the flat Hagedorn needles in position the same precaution should be taken as in the Hagedorn needle-holder proper—namely, that of placing the portion of the needle which bears the eye in contact with the right side of the shaft of the instrument. (In the cut the needle is figured placed somewhat similarly on the left side.) The point of the needle should emerge at



the point of the beak of the instrument. This position allows of greater freedom of scope, and of easier rotation of the handles. The present instrument holds even the smallest flat needles so firmly, however, that this point of position need not be insisted upon, as is the case with Prof. Hagedorn's holder,

which is frequently too weak in its action.

The shafts are sufficiently long to permit of placing sutures inside of cavities, though not too long to preclude delicate work in plastic operations. The instrument can be used for ophthalmic work, as small needles curved on the flat and held between the transverse portions of the jaws can be closely approximated to the organ. The whole instrument is about seven inches in length in the present model. For use with the very largest flat needles made, it should be one or two sizes larger, the present one being intended for general use.

The handles are made of vulcanized rubber conveniently fashioned to fit the hand, and can be made of any desired size to suit the operator. The posterior one is smaller than the anterior one, in order to facilitate rotation in suturing with curved needles; moreover it is flattened on the surface, so that one

can tell the position of the holder in the hand by the feel of it alone.

The catch consists of a tongue provided with three angular ratchet teeth, which fit into two retaining side-bars in the opposite handle. When the first tooth is caught, the needle placed between the jaws is held moderately firm, and very firmly indeed when the second tooth operates; the third tooth, however, releases the catch by allowing the tongue to pass between the bars, and the instrument opens, releasing the needle. The action of the catch is in some sort automatic. By closing the handles of the instrument after placing the needle

For other Gynæcological Instruments, see Index.

in position, the blades become locked and remain so until the needle is passed, when simple further pressure upon the handles releases the needle, thus doing away with all difficult thumb movements necessary to release the needles in most other holders. In many holders, the needle can only be released if the catch happens to be opposite the thumb of the operator; the present instrument can be readily opened in every position, even when held upside down.

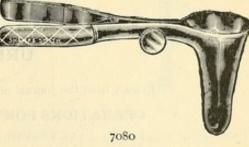
The instrument is a so-called antiseptic one. It can be instantly taken apart for cleaning. The blades readily come apart by means of the French lock. The two springs which open the blades and work the ratchet tongue respectively, are made in one piece and can be slid laterally out of the pivot-head which retains them. The tongue is moored in cannon bearings provided with side slots, from which it is easily disengaged after removal of the spring.

The hard rubber handles are vulcanized on while the steel is hot, and the whole is afterward finished in one piece, presenting perfectly smooth surfaces. Even the name of the maker does not cause any unevenness of the surface, being made of metal and sunk into the handle so as to permit of a perfect finish while remaining visible to the eye.

*7068	Dr. P. E. Outerbridge's Dilators for Sterility, Heavily Gold Plated	5	0
*7069	Dr. P. E. Outerbridge's Introducer for Dilators "	5 0	
*7070		5 0	0
*7071	Dr. W. W. Van Arsdale's Universal Needle Holder	6 7	5
FIG.	RECTAL INSTRUMENTS.		
*7080	Dr. E. H. Pratt's new Rectal Speculum\$	3 5	0
*7081	Dr. E. H. Pratt's " Dilator	1 5	
*7082	Dr. C. S. Eldridge's modification of Dr. E. H. Pratt's Rectal		
A STATE OF THE PARTY OF THE PAR	**************************************		
	Breshet and Marx' Syringotome	2 0	0

Fig. 7080.-DR. E. H. PRATT'S NEW RECTAL SPECULUM.

The new bivalve Rectal Speculum is intended for the examination of cases of fissure and other irritable conditions too sensitive to tolerate the use of the larger bivalve. Its cone shape expands the external more than the internal sphincter and brings the hæmorrhoidal inch nicely into view. It is not useful in all cases, but very much so in some.



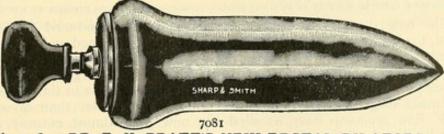


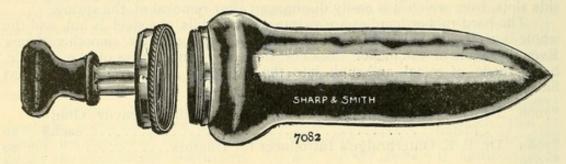
Fig. 7081.-DR. E. H. PRATT'S NEW RECTAL DILATORS.

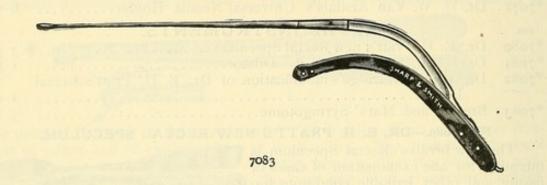
The new Rectal Dilators are intended as an improved shape of what have been called 'The Eggs' (see page 694); they are much easier handled and do better work. Nature flushes her capillaries daily by a daily dilatation of the sphincter ani. In cases of chronic constipation or chronic diarrhæa, where she fails to do so, the new dilators make a very satisfactory substitute and have a tendency to re-establish natural habits. The dilators can be used

by the patients themselves, and are great adjuvants in the treatment of chronic diseases." For other Instruments of Dr. Pratt's, see Index.

Fig. 7082—DR. C. S. ELDRIDGE'S MODIFICATION OF PRATT'S RECTAL DILATOR.

As may be seen by accompanying cut, this Dilator is in two parts. It answers all the purposes of a Dilator, and in addition is made hollow, so that it can be filled with hot water or ice and salt, thereby making it an efficient means of treating the prostate and bladder when heat or cold is deemed necessary. It screws together so as to be absolutely water tight.





URETHRAL.

[Extract from the Journal of the American Medical Association.]

OPERATIONS FOR STONE IN THE BLADDER.

BY EDMUND ANDREWS, M. D., LL-D.

PROFESSOR OF CLINICAL SURGERY IN CHICAGO MEDICAL COLLEGE, AND SENIOR SURGEON OF MERCY HOSPITAL.

The new instruments and modified methods introduced by Bigelow, of Boston, for crushing and evacuating vesical calculi seemed at first dangerously severe. In litholapaxy one must often work with his instruments in the bladder for more than an hour, and it naturally impressed surgeons as a rash and perilous procedure. I confess to having felt strong fears in this direction, and many other surgeons were even more timid in the matter than myself. Prof. Paul F. Eve seems to have avoided the new plan almost entirely, and Prof. James R. Wood, of New York, shortly before his death, showed me his collection of vesical calculi, and informed me that he had just cut for stone the ninetieth time, and had never crushed in a single instance.

However, experience soon showed that the bladder is far more tolerant of even a whole hour or more of careful instrumentation, which thoroughly clears it of debris, than of incision, or of repeated brief crushings which leave a mass of sharp-angled fragments in the cavity for days together. In short, the danger of litholapaxy has proved, in my practice, decidedly less than that of the old style of lithotrity, or of lithotomy. All hesitation has vanished.

I have now operated for stone one hundred times; fifty-five times by cutting, with seven deaths; six times by the old style of lithotrity of Civiale and of Sir Henry Thompson, with one death; and forty times by Bigelow's litholapaxy, with one death. (See Journal referred to, for a summary of the cases.)

Careful mathematical calculations, verified by experiments, showed me three years ago that, by having a reservoir of warm carbolated water 42 inches above the pubis of the patient, and a peculiarly constructed double tube, the inflow channel can be reduced to a small size, and still supply a current forcible enough to sweep all fragments rapidly out of the bladder. The following cuts illustrate the apparatus:

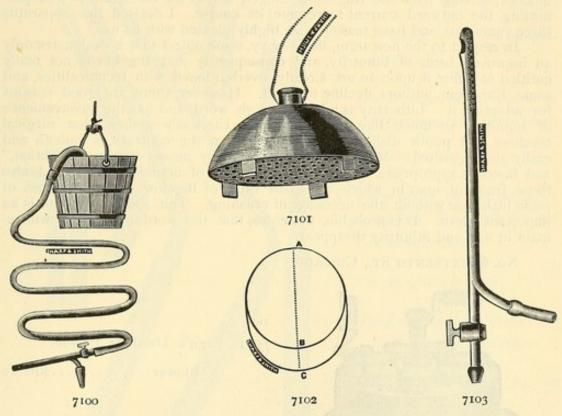


Fig. 7100 represents a bucket or other reservoir filled with warm carbolated water and suspended 42 inches above the patient's pubis, while a syphon of rubber tubing descends from the bucket to the inflow branch of the evacuating tube.

A strainer shaped as in Fig. 7101 is attached to the upper end of the tube and dropped into the bucket. The evacuating tube is double, and the inflow part is smaller than the outflow, and lapped half way around it as shown in enlarged cross sections in Fig. 7102, where the cylindrical tube A B is the outflow channel and the lunate space B C is the inflow portion.

Fig. 7103 gives a side view of the evacuator. Z is the inflow tube which attaches to the rubber syphon shown in Fig. 7100. The inflow tube passes by the curved outflow tube J O without infringing on its caliber, and laps itself around the under half o the outflow tube as shown at B C, Fig. 7103. Near the end X, it discharges into the bladder by about thirty small openings.

This sends a copious current into the bladder, which rushes into the fenestrum X of the outflow tube X J O, and sweeps out the crushed fragments with

It will be observed that the outflow tube is prolonged a little by a piece of rubber tubing J O, the use of which requires a word of explanation. Both in Bigelow's instrument and in my own, the fenestrum X is often blocked by several fragments rushing to the orifice at once, and locking themselves together in a sort of arch, obstructing the outflow and causing a sudden diminution of the stream of water. When this occurs, the surgeon closes the lower end of the short rubber tube I O by seizing it with the thumb and finger of one hand, and then with the corresponding digits of the other hand suddenly compressing the rubber just above. This sends a quick, forcible jet back into the bladder, driving back the fragments lodged across the fenestrum X, and permitting the outward current to resume its course. I devised this apparatus three years ago, and have reason to be highly pleased with its use.

In respect to the new term, litholapaxy, some object that it designates only an improved form of lithotrity, and consequently that Bigelow is not really entitled to inflict it upon an art already overburdened with technicalities, and some European authors decline to use it. However, there are good reasons for adopting it. Lithotrity is a harsh, rough word, and has the inconvenience of sounding so much like lithotomy when carelessly spoken, that surgical teachers and pupils dislike it. Litholapaxy, on the contrary, is smooth and easily distinguished. Moreover, it etymologically means "stone evacuation," and hence is appropriate to include both cases of actual crushing, and also those frequent ones in which the great tubes of Bigelow evacuate stones of some little size without the necessity of crushing. The ability to do this is an important merit. It is probable, therefore, that the word litholapaxy will remain in use, and lithotrity disappear.

No. 6 SIXTEENTH ST., CHICAGO.

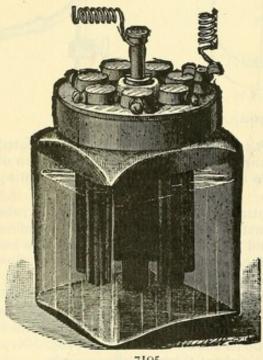


FIG.

7104 Sage's Urethral Powder

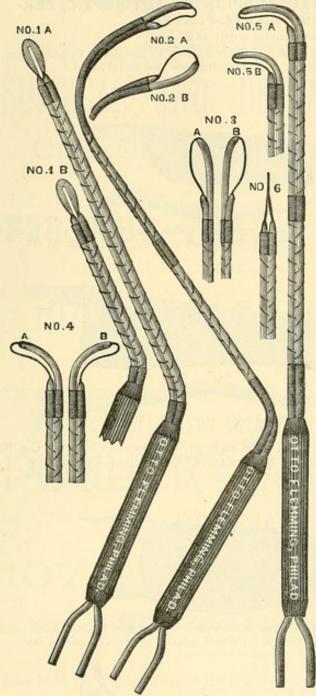
Blower \$10 00

*7105 The Improved Diamond Carbon Battery Cell.. 1 00

7105

For other Urethral Instruments see Index.

MISCELLANEOUS INSTRUMENTS-Electrodes.



- I-A Long Spatula Burner, for hypertrophy of turbinated bones.
- I-B Short Spatula Burner, for anterior hypertrophy of turbinated bones.
- 2-A Lateral "S" Burner, for growths on post-nasal walls.
- 2-B "S" Burner, for growths on postnasal roof.
- 3-A Lateral Burner, for right nostril, for hypertrophy of turbinated bones.
- 3-B The same, for left nostril.
- 4-A Scythe Burner, for right nostril, for posterior hypertrophies of turbinated bones.
- 4-B The same, for left nostril.
- 5-A Post-Nasal Scythe Burner, for growths in post-nasal space.
- 5-B The same, of smaller size, for children.
- 6 Pointed Burner, for puncturing anterior hypertrophies.

DR. F. B. EATON'S NASO-PHARYNGEAL CAUTERY ELECTRODES.

(The above cut represents natural sizes.)

*7106 One Complete Set (11 Burners) in case. \$20 00
Each Single Burner 1 75
Heavy Conducting Cord, complete. 2 00
Clamp Attachment, to fasten to any suitable Cord. 75
20 per cent, Discount.

For other Electrodes, see Index.

7106

MISCELLANEOUS INSTRUMENTS—Splints. NEW SPLINTS.—LEE'S METALLIC SPLINTS.—ANTISEPTIC, PERFORATED AND NICKEL-PLATED.

PATENTED OCTOBER 30TH, 1888.

Having numerous inquiries from time to time for Anterior Splints, to match our Posterior ones, we have decided to manufacture the four following new and useful forms:

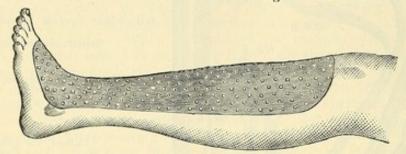


Fig. 7150—No. 14—Anterior Tibia Splint. Two in each set. Adults and Children. Can be used separately or in combination with No. 9 (Fig. 4579) Splint. each \$1 00.

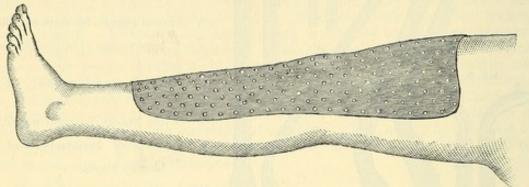


Fig. 7151—No. 15—Anterior Patella Splint. Two in each set. Adults and Children. Can be used separately or in combination with No. 8, (Fig. 4578) Levis' Splint...each \$1 00.

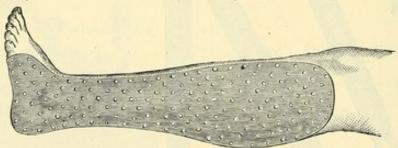


Fig. 7152—No. 16—External Ankle Splint. Four in each set. Rights and Lefts. Adults and Children. This is designed to replace the old fashioned wooden Splint...each \$1 00.

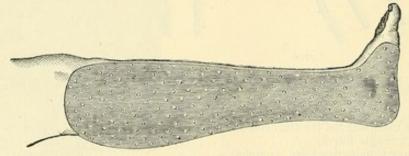


Fig. 7153—No. 17—Internal Ankle Splint. Four in each set. Rights and Lefts. Adults and Children. This is designed to replace the old fashioned wooden Splint...each \$1 00.

For other Splints, see Index.

WM. H. WIGMORE,

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SURGICAL AND DENTAL INSTRUMENTS,

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Cow Milking Tubes, Teat Slitters, Cattle and Sheep Labels, and Windy Dropsy

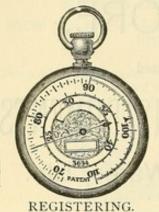
Trocars, French Poultry Killing Knives, Caponizing Tools of every

Description, with full instructions; Adjustable Bands, Rings,

Markers, Roop Syringes, Anti-Feather Pullers, Gapes

Exterminator, and How to Make Poultry Pay.

FOR SALE BY SHARP & SMITH.



Immisch's Clinical Avitreous Thermometer,

IN SILVER OR GOLD.

Will last a Lifetime, and never vary with age like the Glass Thermometers.

Awarded Three Silver Medals, 1885.

Highest Award, Liverpool, 1886.

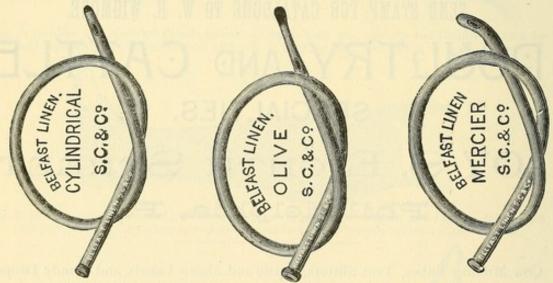
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":	9	Morphinæ Sulphas 1-4 grain,		**	45	Hyoscyaminæ Sulph. 1-60 grain, 15
		Atropinæ Sulphas 1-150 grain,	20	"	40	Hyoscyaminæ Sulph. 1-100 grain,15
"	10	Morphinæ Sulphas 1-6 grain,	100		47	Hyoscyaminæ Sulph. 1-60 grain,
		Atropinæ Sulphas 1-180 grain,	20	**	. 0	Morphinæ Sulph, 1-4 grain, 20
"	II	Morphinæ Sulphas 1-8 grain,	200		48	Picrotoxini 1-40 grain, 15
**	1019	Atropinæ Sulphas 1-200 grain,	20		49	Picrotoxini 1-60 grain, 15
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		Atropinæ Sulphas 1-250 grain,	20			Strych. Sulph. 1-80 grain, 15
**		Atropinæ Sulphas 1-60 grain,	15			Coninæ Hydrobrom. 1-80 grain, 15
-		Atropine Sulphas I-100 grain,	15	- 11	52	Coning Hydrobrom, 1-100 grain, 15
6.		Atropinæ Sulphas I-150 grain,	15	7130	53	Coninæ Hydrobrom. 1-100 grain,
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**		Strychninæ Sulphas 1-160 grain,	15	- 66		C . CII o .
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**		Apomorph, Mur. 1-20 grain,	20	**		Eserinæ Sulph. 1-100 grain, 15
**		Pilocarpinæ Mur. 1-4 grain,	50	++		Eserinæ Sulph. 1-80 grain, 15
**		Pilocarpinæ Mur. 1-8 grain,	30	44		Eserinæ Sulph. 1-100 grain, 15
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**		Pilocarpinæ Mur. 1-2 grain,	90			Morphinæ Sulph. 1-6 grain, 15
66		Pilocarpinæ Mur. 1-3 grain,	65	44	61	Physostygminæ Salicylas 1-40 g, 15
		Pilocarpinæ Mur, 1-10 grain,	25	**	62	Physostygminæ Salicylas 1-60 g, 15
66	27	Aconitinæ 1-60 grain,	30	**	63	Caffeinæ 1-2 grain, 20
**	28	Aconitinæ 1-130 grain,	20	"	64	Caffeinæ 1 grain, 25
		Aconitinæ 1-260 grain,	15	**	65	Quin Carbam. Mur. 1 grain, 25
4.6	30	Morph. Bi-Meconas 1-3 grain,	30	**	66	Quin. Carbam. Mur., 2 grains, 40
***	31	Morph. Bi-Meconas 1-4 grain,	25	"	67	Quin. Carbam, Mur. 3 grains, 60
**	32	Morph. Bi-Meconas 1-6 grain,	20	**	68	Hyoscin, Hydrobrom, 1-100 gr'n 40
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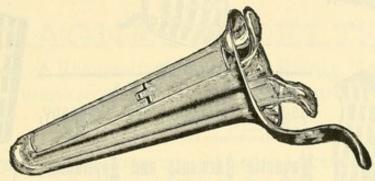


Fig. 1

Shows the instrument ready for use.

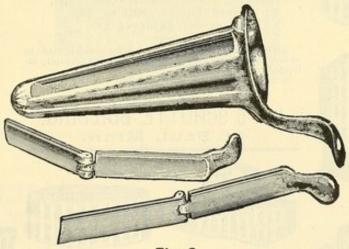


Fig. 2

Shows the slides withdrawn and illustrates the character of the milled edges which fit in the grooves of the slots.

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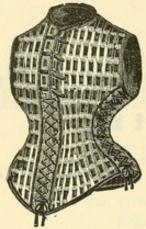


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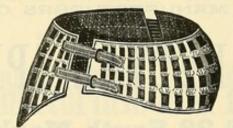
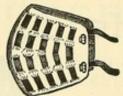
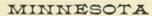


Fig. 6.

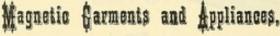






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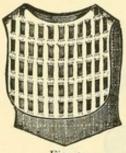


Fig. 3.



Fig. 7.

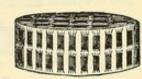


Fig. 8.

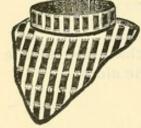


Fig. 4.



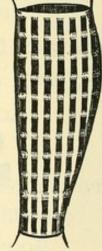


Fig. 9.



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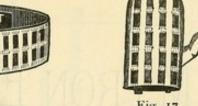


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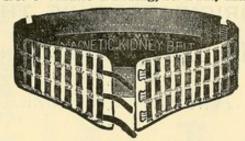




Fig. 18.

Fig. 15.

Fig. 18.

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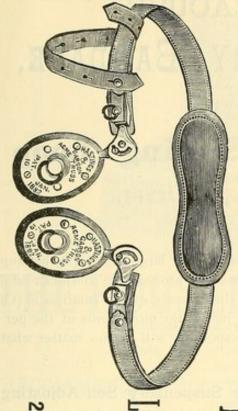
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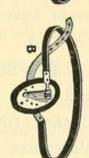
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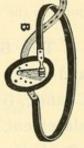
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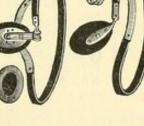
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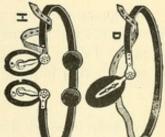












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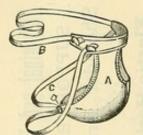
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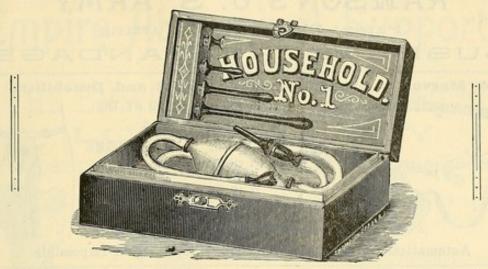
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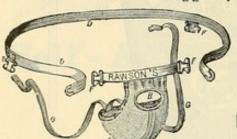
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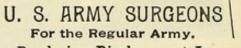


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- 3d. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the backbone, relieving the sinews of their overwork.
- 4th. Its easy appliance. (Lace and draw on over the head or feet.)
- 5th. It is cheap, durable. It can be washed when soiled, proper care being taken to cleanse in lukewarm water, and dry in the shade.

In ordering give the Measure of the Abdomen.

The Supporter should be from four to ten inches larger, according to the degree of support required.

PHYSICIANS' PRICES.

Common Size, 8 inches wide, \$2.50; Extra Size, 11 inches wide, \$3.00; All Silk, 8 inches wide.

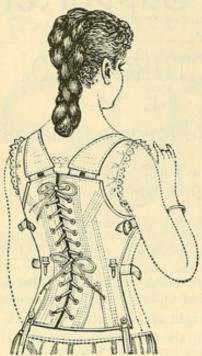
THE EMPIRE UMBILICAL TRUSS

Is made of the same material, and possesses the same merits as the Empire Elastic Bandage and Empire Abdominal Supporter, and is pronounced by all who have seen it to be the best. All of our goods are sent free by mail on receipt of price, and money refunded if not satisfactory.

Infant, 3 inch Supporter, \$1.00; Children, 5 inch Supporter, \$2.50;
Adult, 11 inch Supporter, \$4.00.

FOR SALE BY SHARP & SMITH.

Dr. Gray's Back-Supporting Shoulder Brace.



PATENTED FEB. 24, 1880.

"As the twig is bent, so is the tree inclined." The truth of this old adage is forcibly brought to mind when one sees a man or woman disfigured by a crooked spine or stooping shoulders, and one mentally exclaims, If that person had only had proper care when young, that awkward figure might have been avoided.

For the purpose of correcting this evil, the Back-Supporting Shoulder Brace has been devised, and so effectual is it in accomplishing its purpose, that it is rapidly growing in favor with all who have worn it, and it is spoken of in the highest terms of praise by all physicians who have seen and examined it.

Attention is called to the general construction, by which a perfect strengthening support is given to the back, at the same time drawing the shoulders back so as to expand the chest and throw the body into an erect, graceful position. All tendency to round shoulders is thus avoided, and this to the young, at the period when the bones and muscles are growing and hardening, is a most important item.

Provision is made for attaching skirts and stocking supporters, thus relieving the hips entirely from the drag of both.

PRICE \$1 50.

Sold by Druggists and Dry Goods trade, or sent by mail, postage prepaid, on receipt of price.

In ordering, give waist measure outside dress.

The Combination

BACK-SUPPORTING SHOULDER-BRACK

AND

SUSPENDER FOR MEN AND BOYS.

PATENTED AUGUST 16, 1881.

This Brace provides a firm yet flexible support for the back from the hips to the shoulders, to which is attached at the waist a yielding belt, which helps to keep the back support in place. At the upper part are connected carefully-constructed adjustable pads, so arranged as to draw the shoulders gently back without cutting or chafing under the arms, thus inclining the body to a graceful, erect position, expanding the chest and correcting all tendency to stooping or round shoulders. Suspender attachments are also added for the pantaloons, which render other suspenders unnecessary. For youths at the growing age, when bones and muscles are forming and hardening, it will be found especially desirable, and for men who from sickness or sedentary occupations are afflicted with weak backs, it will be found a grateful support and possibly a positive cure.

Made in	Will fit any	Waist	Price.
3 sizes.	person.	measure.	A rice.
Boys' 4 ft	. S in. to 5 ft. 2 in. t	all26 to 29 in	\$2 00
Young Men's 5 ft	2 in. to 5 ft. 8 in. t	tall27 to 32 in	2 25
Men's 5 f	. S in. to 6 ft. tall	28 to 34 in	2 50

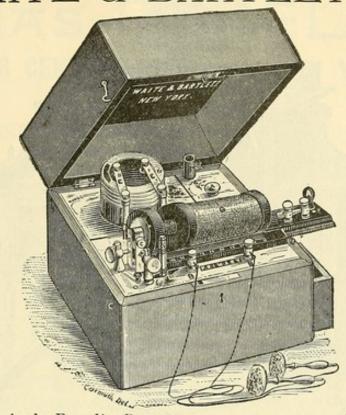
Sold by the Druggists and Gent's Furnishing trade, or sent by mail, postage prepaid, to any part of the United States on receipt of price. Address as below.

GEO. FROST & CO.,

Sole Manufacturers, 287 Devonshire Street, Boston, Mass.

For Sale by SHARP & SMITH, Chicago, Ill.

WAITE & BARTLETT'S



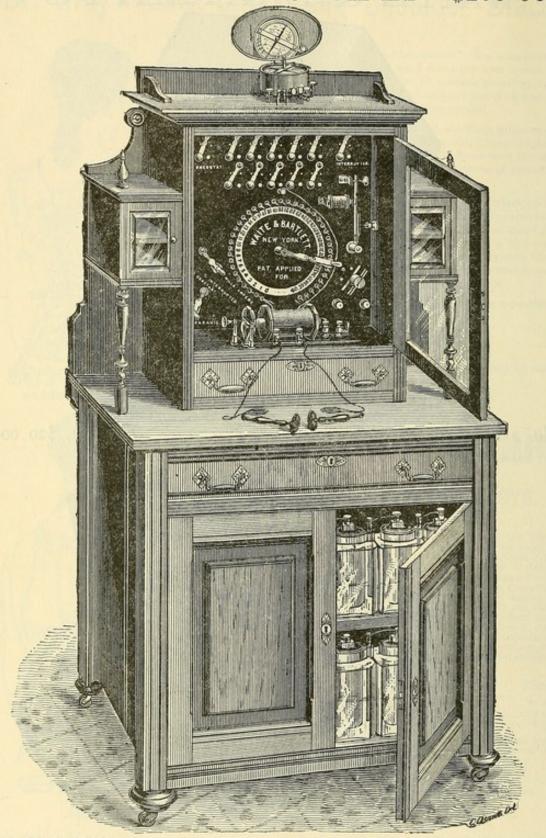
No. 2 Physician's Faradic Battery.

Price, \$20 00



Plug and Socket Galvanic Battery. - 20 Celled, \$30.00. 30 Celled, \$38.00 143 EAST 23d STREET, NEW YORK.

COMPLETE OFFICE CABINET. \$260 00



(PATENTED MAY 12th, 1887. OTHER PATENTS PENDING.)
WAITE & BARTLETT, - 143 East 23d St., New York.

CHAS. BESELER,

218 CENTER STREET, - NEW YORK,

MANUFACTURER OF

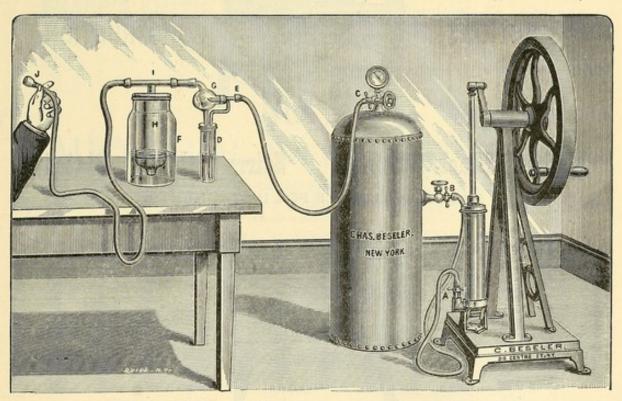
COMPRESSED AIR ATOMIZERS, INHALERS, AIR AND
GAS PUMPS, GAS RECEIVERS

AND THE MOST IMPROVED

Outlits for Preparing and Inhaling Oxygen

INHALING APPARATUS.

For administering Vaporized Medicine in the treatment of Throat and Lung difficulties, as designed by Dr. N. L. MacBride, N. Y., shown in connection with the celebrated Novelty Air Pump and No. 5 Air Receiver. Ten by thirty-two inch.



Each Inhaler is provided with the necessary Rubber Tubing (three and a-half feet), and one Hard Rubber Mouthpiece.

Glass tube D to contain the liquid to be vaporized; glass jar F to be half filled with clear water.

FOR SALE BY SHARP & SMITH.

Curtiss' Gynæcological Chair.

MANUFACTURED BY

J. S. FORD, JOHNSON & CO.,

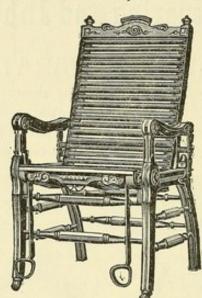
CHICAGO.

Indorsed and used by A. Reeves Jackson, M. D.; E. M. Hale, M. D.; N. B. Delamater, M. D., J. S. Mitchell, M. D., and other prominent members of the profession.

AUTOMATIC

IN

ACTION.



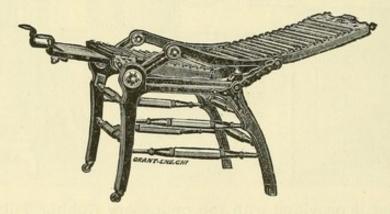
SIMPLE

IN

CONSTRUCTION.

Made of Black Walnut. Stirrups Nickel Plated,

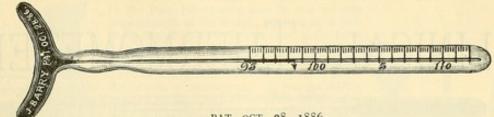
HAS SLIDING SHELF FOR INSTRUMENTS.



PRICE \$25.00 NET.

For sale by SHARP & SMITH, and all prominent dealers throughout the United States.

CLINICAL TRERMOMETERS.



PAT. OCT. 28, 1886.

A NEW FORM OF CLINICAL THERMOMETER FOR TAKING TEMPER-ATURES UNDER THE TONGUE.

Clinical Thermometers, as they are usually made, have their stem joined at the end of the Cylinder Bulb, which is mostly ¾ to I inch long. Thus, when pushed under the tongue so as to put the bulb far enough back in order to get at the true temperature of the patient in that part, the end of the bulb will slide either side. Otherwise the pointed Cylinder is liable to smart, if not hurt.

The improvement is in the stem, or graduated part, being brought parallel with the center of the cylinder, and having the bulb partly curvative, so that it will come in contact with all the necessary parts under the tongue, and at the same time will rest securely, and not slide either way. By this means, as well as by the fact that the bulb is surrounded by the flesh, either with the mouth shut or open, the heat being evenly distributed, a more uniform and satisfactory result may be obtained. The instrument may be used for surface temperatures, and its crutch shape also adapts it to the Axilla.

They cannot roll, are strongly made, and with ordinary care will last for years.

JOHN BARRY, Patentee and Maker, New York. SHARP & SMITH, Principal Agents, 73 Randolph St., Chicago.

SHMA



MENTHOL JPPOSITORIES.

With Cocaine, Powdered Boracic Acid, Sub-Nitrate of Bismuth and Sulphate of Morphia.

IN offering the Menthol Suppository to the medical profession we claim many advantages over suppositories made from Cocoa Butter, which forms a coating and imposes an oily substance between the membrane and the medicine. It prevents in many instances the best action of the remedy. The Menthol Suppository is a dry powder in a Soft Gelatine Capsule. Moisture and normal heat of the body will dissolve this capsule in two or three minutes, leaving the dry powder in direct contact with the parts affected, securing the full and best effects of the remedy.

CURATIVE PROPERTIES OF MENTHOL.

By its action upon the vaso-motor nerves it causes a contraction of the arterioles of the parts, thereby diminishing their caliber and regulating the amount of blood passing through the parts; by its power to diminish the caliber of the arterioles it has a tendency to arrest active congestion and acute inflammation, and by its action on the venuos plexuses will prevent congestion and chronic inflammation. Menthol Suppositories are free from any medicine that will coagulate the secretions of the affected parts, thereby forming false membranes to weaken the patient, and they can be used with the least possible inconvenience.

ENDORSED BY LEADING PHYSICIANS. Cleanly, Easily Applied, Safe and Sure to Give Relief.

Price to Physicians \$6,00 per dozen Boxes. Each box contains 1 1/2 dozen Capsules. Write for samples.

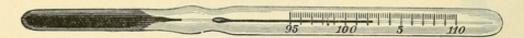
Manufactured by W. H. SHEPARD CO.,

For Sale by all Instrument Dealers.

Three Rivers, Michigan,

THE NEW PATENTED

CLINICAL THERMOMETER.



All these Thermometers must be marked BAYER'S PATENT, MAY 29/88, otherwise they are an infringement, and are worthless.

The invention consists in a Clinical Thermometer having a bulb of glass colored in its body. The advantage of a colored bulb is that the Thermometer is rendered thereby more sensitive to changes in heat, which is especially valuable in Clinical Thermometers, as these are brought into contact with the person, and should indicate any slight change in temperature quickly. The glass used for the bulb may be of any color, varying in shades from opaque white to black, or two or more colors may be combined in one bulb. The colored bulb also improves the appearance of the Thermometer, and causes the mercury in the bore of the tube to be seen plainer. The most expert workmen of the art are employed in their manufacture, as it is our intention to introduce first quality instruments.

FOR SALE BY

Hazard, Hazard & Co., Ph. H. Schmidt & Co.,
George Tiemann & Co., J. Reynders & Co.,
F. G. Otto & Sons, Sharp & Smith, Chicago
AND OTHER FIRST-CLASS INSTRUMENT HOUSES.

Physicians wishing an Accurate Instrument ask for BAYER'S PATENT CLINICAL THERMOMETER.

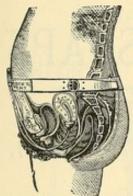
BAYER & FLETCHER.

63 Fulton Street,

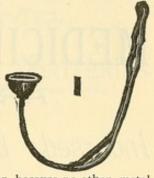
NEW YORK.

For Sale by SHARP & SMITH, Chicago.

Dr. L. A. Babcock's Pure Silver Uterine Supporter.



Is the best Instrument now in use for any displacement of the womb, because it is perfectly simple in its structure, and made to fit the parts exactly. It has no straps or strings to hold it in its place, and does not have to be taken off every time there is a movement of the bowels or micturition. It has no rubber to bend by the natural heat of the body, or to chafe and irritate the parts, producing Leucorrhœal discharge and weakness. It is made of pure coin silver, cup and stem, which makes it flexible, and can be changed in shape to suit any form. The solid pure silver is an



absolute necessity if a radical cure is sought for, because no other metal can be used with any degree of success, if you wish to produce a current

of electricity: if the aim is to cure the patient, then the best and purest instrument should be used. With fair usage, this instrument will last for years, and after a cure is effected, and it is no longer

required for that purpose, there is still value remaining in it.

We claim and believe that Dr. Babcock's Silver Uterine Supporter will work a radical cure in most cases of displacement of the womb, if used thirty or sixty consecutive days as directed, because its direct action is to contract and tone the relaxed muscles and ligaments of the womb, overcoming the worst cases of Retro and Ante-version, and Flexions in a few days, and reducing the womb to a normal condition.

Over 1,000 testimonials from the most eminent Physicians have been voluntarily given, in proof of the above stated facts, that THE SILVER UTERINE SUPPORTER has proved a radical cure to thousands of ladies who have been confined to their rooms and beds for years, and who are now

well and happy.

Full proof will be furnished to all who wish to test the truth of the matter here stated.

Price to Physicians, - - - \$10 50.

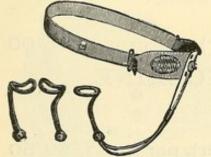
ᢀN. F. TAYLOR♥

(Successor to Dr. L. A. Babcock in the Manufacture and Sale of the Silver Uterine Supporter.)

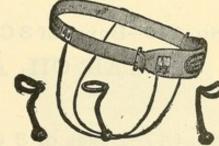
658 TREMONT STREET, - - - BOSTON, Mass.

For Sale by Sharp & Smith.

PRICES REDUCED ON THE



SELF-ADJUSTING SILVER SUPPORTER, - \$6 00



SUPPORTER, ASTIC \$3 75.

THE SHANNON SUPPORTER IS THE MOST NATURAL UTERINE SUPPORTER EVER MADE

FOR PROLAPSUS, RETROVERSION AND ANTEVERSION Halsey's Modification for Cystocele, \$1000.

HALSEY BROS. | Homeopathic Pharmacy. | CHICAGO.

MEDICINAL TOILET SOAPS

ARE UNEQUALED.

Indorsed by the Medical Profession.

CARBOLIC.—(Enveloped).



No. 129—Boxes of 3 Cakes (Paper), per gross, \$15 00 JUNIPER TAR OIL.—(Enveloped).



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JAS. S. KIRK & CO.,

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SOAP MAKERS, PERFUMERS, CHEMISTS.
REFINERS OF GLYCERINE.

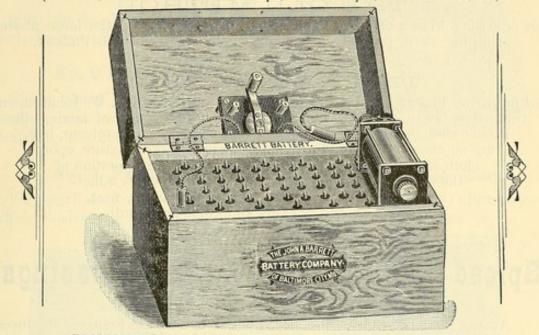
The John A. Barrett Battery Company,

OF BALTIMORE, MD.,

MANUFACTURERS OF THE

CHLORIDE OF SILVER DRY CELL BATTERIES.

(Pat. Feb. 23, 1886. Pat. Dec. 13, 1887. Pat. May 7, 1889. Pat. May 14, 1889. Pat. June 11, 1889.)



COMBINATION, GALVANIC AND FARADIC BATTERY

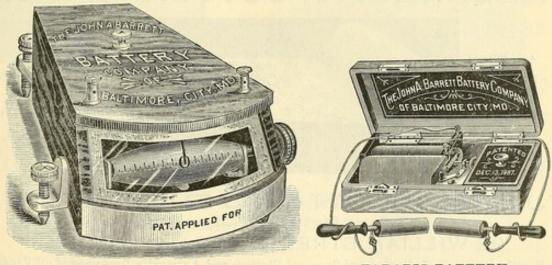
THE CHLORIDE OF SILVER DRY CELL BATTERIES

Have distanced all Competition; hence the days of antiquated Acid Batteries for the use of Physicians and Families are numbered. Our Batteries have proved to be Original, Compact, Portable, Constant, and Economical.

THEY NEED NO REPAIRS. THEY ARE ALWAYS READY.
In fact, it is the Battery of Batteries.

SEND FOR CATALOGUE.

READ INDORSEMENTS.



MIL-AM-METER.

FARADIC BATTERY.

Full Line for Sale by Sharp & Smith.

JOHNSON & JOHNSON'S IMPROVED PLASTER OF PARIS BANDAGES.

(PATENT APPLIED FOR.)

THE OLD METHOD

Of preparing Plaster of Paris Bandages, namely, rolling up the loose plaster with the cloth, produces a slovenly combination, which is difficult, inconvenient, and untidy to use.

THE NEW METHOD

Of preparing Plaster Paris Bandages, invented by our Mr. R. W. Johnson, entirely does away with the above objections. It consists of mixing the Plaster with an adhesive substance, dissolved in a volatile solvent, having no effect upon the Plaster, then spreading the mixture upon cloth with especially devised machinery. The evaporation of the solvent leaves the plaster firmly and smoothly adhering to the cloth, and the result is a bandage, neat, convenient, and as easily applicable as an ordinary cloth bandage.

Spread Poultices or Water Dressings.

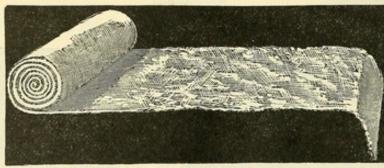
Among the new products recently added to our list are Prepared Poultices, Starch, Flaxseed, Slippery Elm, and Iceland Moss. They are made after the manner of Prepared Mustard Plasters, and are made ready for use by dipping in water. They possess the same relative advantages over ordinary Poultices as are offered by Prepared Mustard Plaster over the ancient home made Mustard Plaster. They will be found of great service as an emollient dressing for an inflamed skin, and in extreme cases of eczema, erysipelas, etc.

ABSORBENT COTTON (J. & J.)

IN EVEN
SHEETS
WITH
TISSUE
PAPER

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ROLLED
BETWEEN
TO PREVENT
FELTING.

JOHNSON & JOHNSON,

Manufacturing Chemists.

92 WILLIAM STREET, - - - NEW YORK,

Manufacturers of Medicated and Surgical Plasters and Antiseptic Dressings of all Kinds A FULL LINE CONSTANTLY ON HAND AT SHARP & SMITH'S.

FLEMMING'S

Faradic Current Batteries.

No. 00 Faradic Battery.

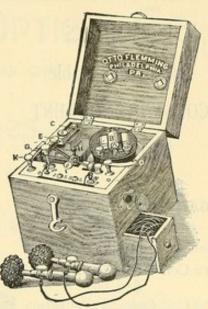
Brass finish, shellacked case, cotton-covered cords, and two tubular tin handles. \$10 00.

No. 0 Faradic Battery.

Nickel plated polished case with carrying handle, cotton-covered cords, one regular sponge electrode, and one tubular tin handle. \$12 00.

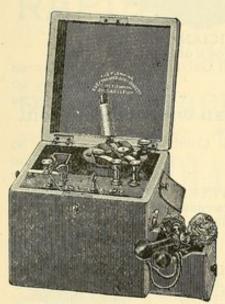
No. 1 Faradic Battery.

Very much more complete than the former, and With rapid and slow interhighly finished. \$15 00.



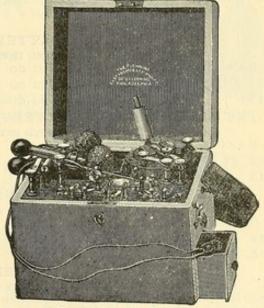
No. I Faradic Battery.

rupter. \$22 50.



No. 2 Faradic Battery.

Finished as well as the No. 1 Battery, but coil one inch longer, and therefore more powerful, with the addition of a Commutator. Price, \$20 00.



No. 3 Faradic Battery.

This Battery is the finest and most complete of its kind ever manufactured. It is provided with a slow and a rapid Rheotome, or current interrupter, a Commutator, or polarity changer, etc. \$30 00.



FLEMMING'S CIRCUIT-CLOSING NEEDLE HOLDER.

With one-half dozen very fine Electrolytic Needles. For use in depilation, or removal of superfluous hair by Electrolysis. Price, \$3 50.

The apparatus required for this operation consists of a galvanic battery of from ten to twelve cells, a sponge electrode, an exceedingly fine needle, and the above needle holder.

FLEMMING'S

Improved Portable

CONSTANT CURRENT

BATTERIES.

GALVANIC BATTERY.

(PHYSICIAN'S STYLE.)

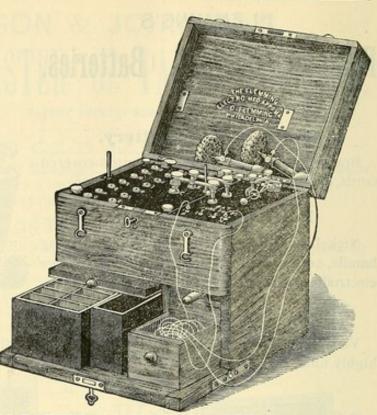
Cells Divided into Sections of 10.

10 Cell Galvanic Battery, \$25 00

20 Cell Galvanic Battery, \$45 00

30 Cell Galvanic Battery, \$65 00

40 Cell Galvanic Battery. \$80 00



GALVANIC BATTERY (PHYSICIAN'S STYLE.)

									F 6 OR 12.			
6	Cel	Galvanio	Battery		\$20	00	24	Cell	Galvanic	Battery	\$5	5 00
I 2	"		66						"		6	
18	"	44	44		40	00	36	**	"	66	7	5 00
T	HE	SAME S	TYLE OF	BA	TTE	ERY,	COM	BINE	D WITH	FARA	DIC CO	DIL.

ó	Cell	Comb.	Battery	\$3	000	24	Cell	Comb.	Battery	 367	00
12	66	46	"	4	000	30	66	"	"	 77	00
18	"	66	"	5	00 0	36	66	*6	66	 87	00

RAPID INTERRUPTIONS.

THE SAME STYLE OF COMBINATION BATTERY, FARADIC COIL.

				TERRUPTIONS.		
6	Cells	 \$38 00	24 Cell	s	\$75	00
12	"	 48 00	30 "		. 85	00
T 8	46	-8 00	26 16		0.5	00

GALVANIC BATTERY (FAMILY STYLE.)

This is a cheap Battery, made up of light material and designed for Physicians to put them into the hands of their patients. The absence of a hydrostat-board for preventing fluid spilling in carriage, does not make it so portable as the Physician's Battery; but their elements being composed of zinc-carbon, the same as in the former, their working capacity compares very favorably with them.

6 Cell Battery \$ 7 00	16 Cell Battery\$17 50			
8 " " 9 00	20 " " 22 00			
10 " " 11 50	30 " " 32 00			
Portable Cautery Battery (Single Cell) for us	e in Minor Surgery\$15 00			
Portable Double Cell Cautery Battery, for	use in Minor Surgery 30 00			
Single Cell Cautery Battery, for office use, a	nd for use in Minor Surgery 30 00			
Double Cell Cautery Battery, for office use.	50 00			
Cautery Instruments for Naso-Pharyngeal C	Operations—Complete Case 25 00			
Milliampere Meters, Current Controllers, Stationary Cells and Electrodes for Gynæ- cological Purposes. Also, Battery Cabinets, Stationary Wall Cabinets, Etc.				
ELECTRODES, for use in electro-therapeutics, in al				

For Sale by Sharp & Smith.

BAUSCH & LOMB OPTICAL CO.,

MANUFACTURERS OF



Microscopes,

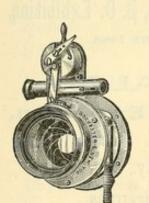
Objectives and

Accessories.

RAPID UNIVERSAL

And Wide Angle

PHOTOGRAPH LENSES.



DIAPHRAGM SHUTTER, TIME AND INSTANTANEOUS.

FACTORY & MAIN OFFICE 531-543 N. ST. PAUL ST.

ROCHESTER, N. Y.,

P. O. Dnawen 292.

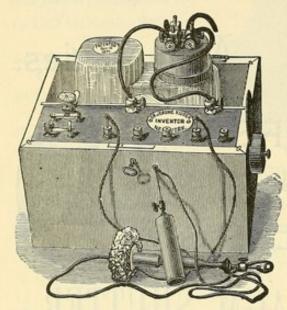
Branch Office, 48-50 Maiden Lane, New York, P. O. Box 432.

MAINTAINED SUPERIORITY. DR. JEROME KIDDER'S ELECTRO-MEDICAL APPARATUSES

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GOLD MEDAL

From American Institute in 1875,



and the Highest Awards from 1872 to 1888, inclusive, for

"THE BEST APPARATUS EITHER HERE OR ABROAD."

BRONZE MEDAL

and First Premium at

Centennial Exhibition, 1876

FALL OF 1882.

5 SILVER MEDALS From **Cincinnati ** Industrial ** Exposition,

FALL OF 1881, 1882, AND 1883.

Medal from Southern Exposition at Louisville, Ky., Fall of 1883,

Beware of all Infringements upon our Goods.

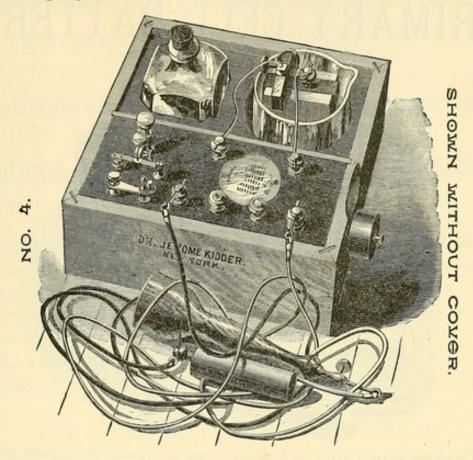
We are sole proprietors. All purchasers of Batteries infringing upon our patents, are held liable for royalty (or cost of goods.) To distinguish the genuine from the spurious send for Illustrated Catalogue. Address,

JEROME KIDDER MFG. CO.,

820 BROADWAY,

NEW YORK.

OFFICE AND FAMILY APPARATUS.



Our Apparatus are superior to all others, owing to the physiological qualities of Electricity they produce, the simplicity of operation, and durable construction.

Improved No. I-Physician's Office Electro-Medical Apparatus.

Improved No. 2-Physician's Visiting Machine. Turn down Helix.

Improved No. 3-Physician's Visiting Machine, (another form).

Improved No. 4-Office and Family Machine.

Improved No. 5—Tip Battery Machine, a most perfect and convenient apparatus.

We Manufacture a Complete Line of

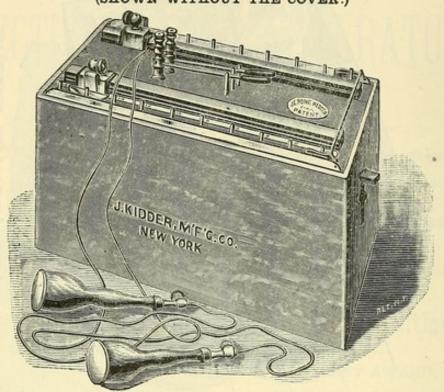
Office Faradic Apparatus, Cabinet, Wall Bracket, Galvanic, Galvano-Cautery, and Combined Galvanic and Faradic Apparatus.

We are sole proprietors of the "Patent Tip Battery", and all purchasers of infringements are held liable for royalty (or cost of goods) to the Jerome Kidder Manufacturing Co., New York City, N. Y.

GALVANIC BATTERIES.

PRIMARY CELL BATTERY.

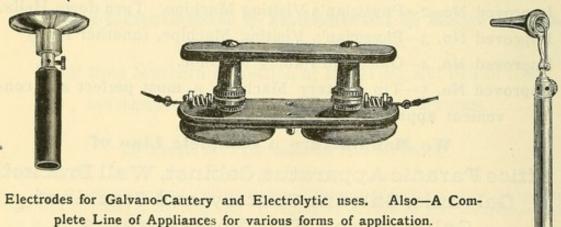
(SHOWN WITHOUT THE COVER.)



The construction of our Galvanic Apparatus is such as to possess all the desired advantages necessary for the proper manipulation of the current.

INTERRUPTING, REVERSING DIRECTION, INCREASING THE CURRENT

By Single Cells. Cutting out of circuit cells without stopping the operation of the Battery. The Jars are of Hard Rubber, and the elements are so constructed as to be interchangeable; also removed and replaced without any mechanical tools whatever, thus making the Battery as near perfection as possible.



JEROME KIDDER MFG. CO., NEW YORK, N. Y.

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W. T. Keener invites the attention of the Medical Profession and Students to his stock of

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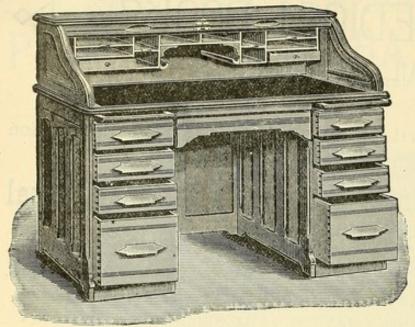
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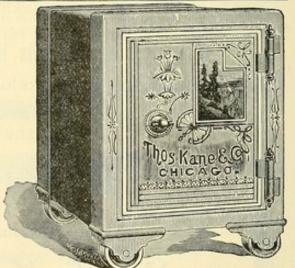
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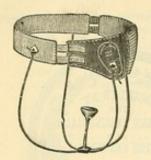


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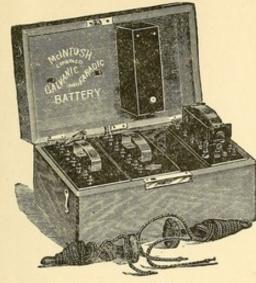
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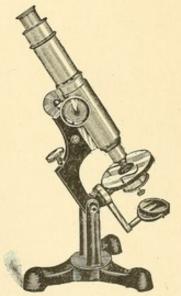
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