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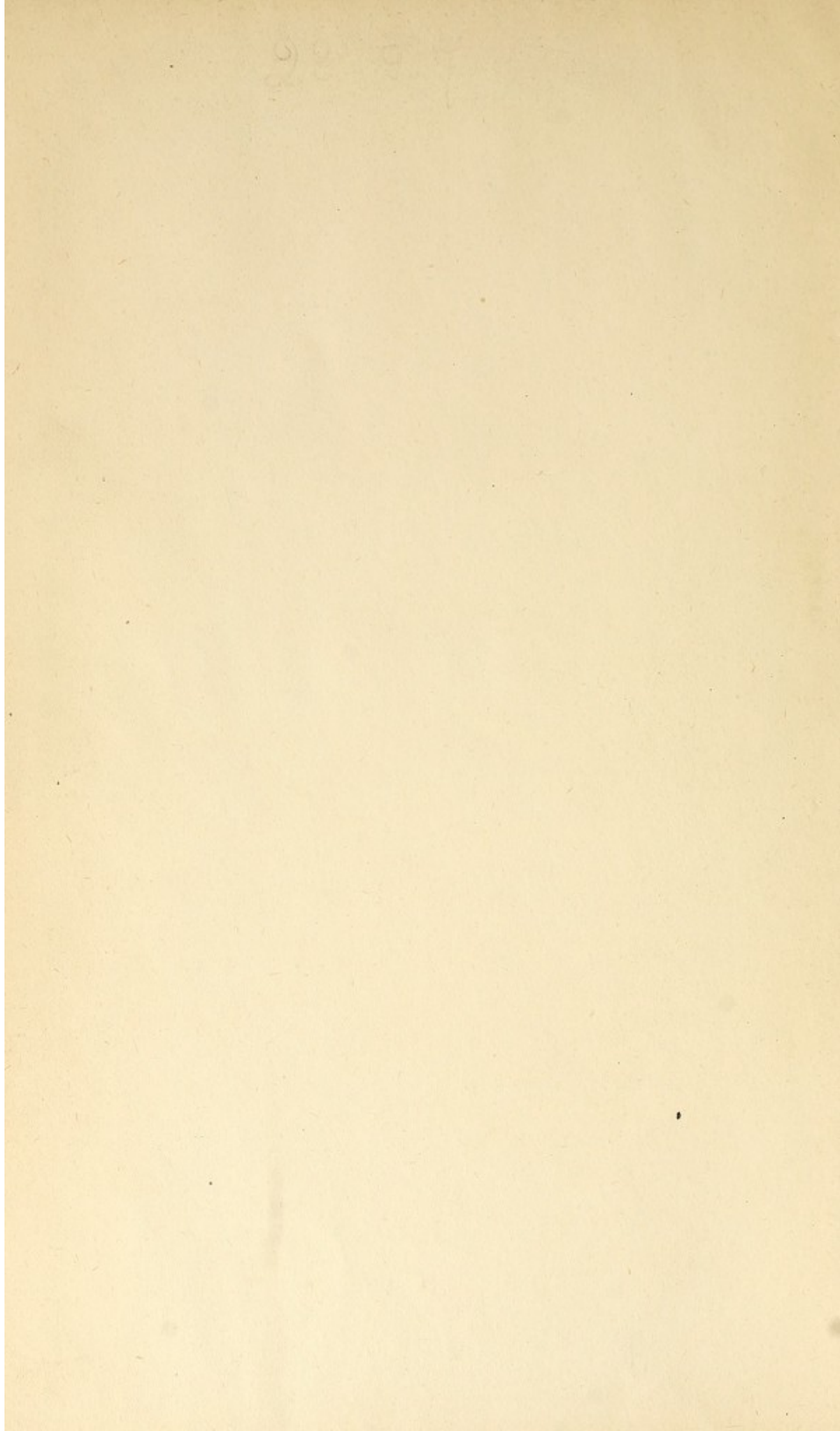
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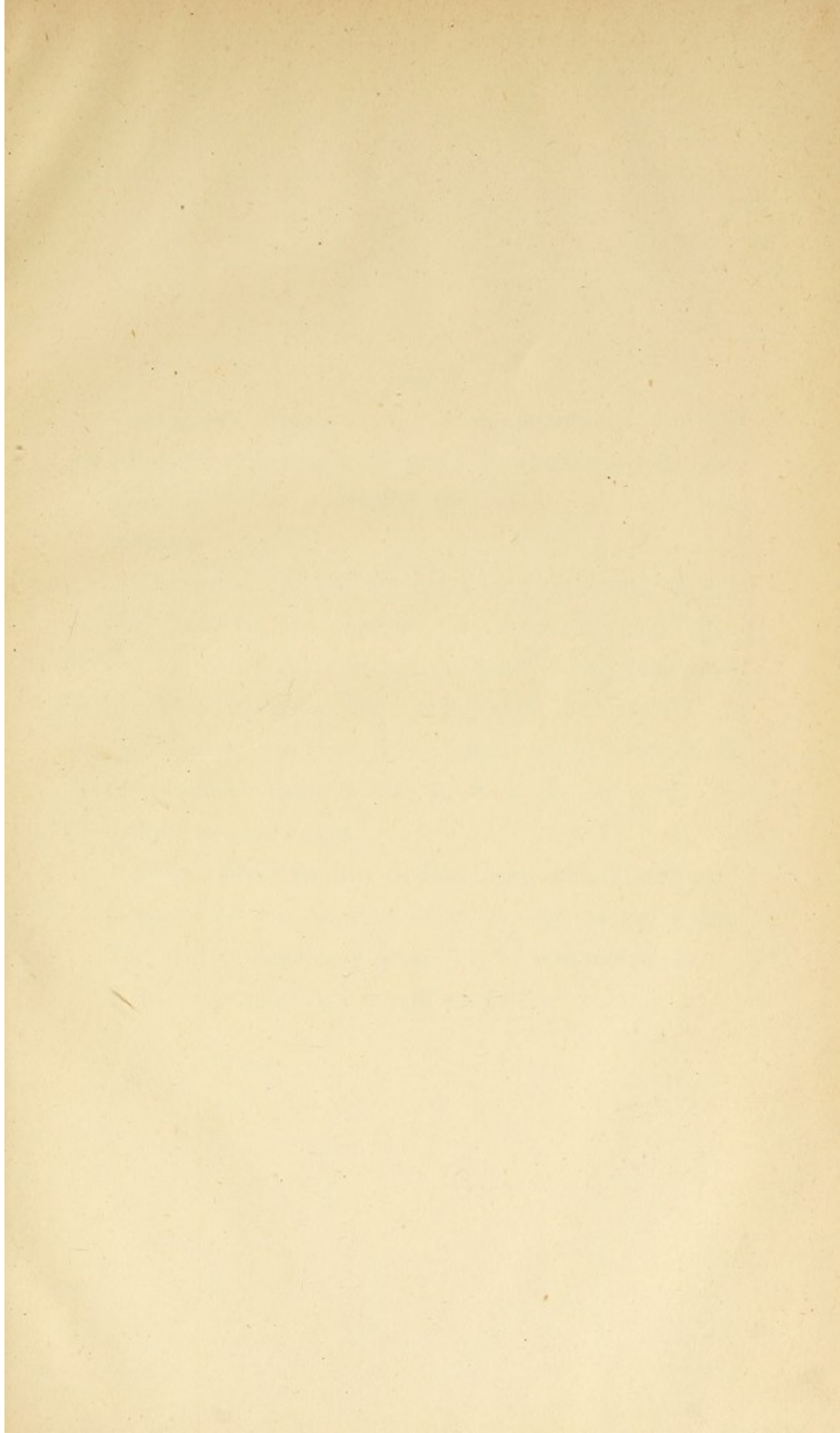
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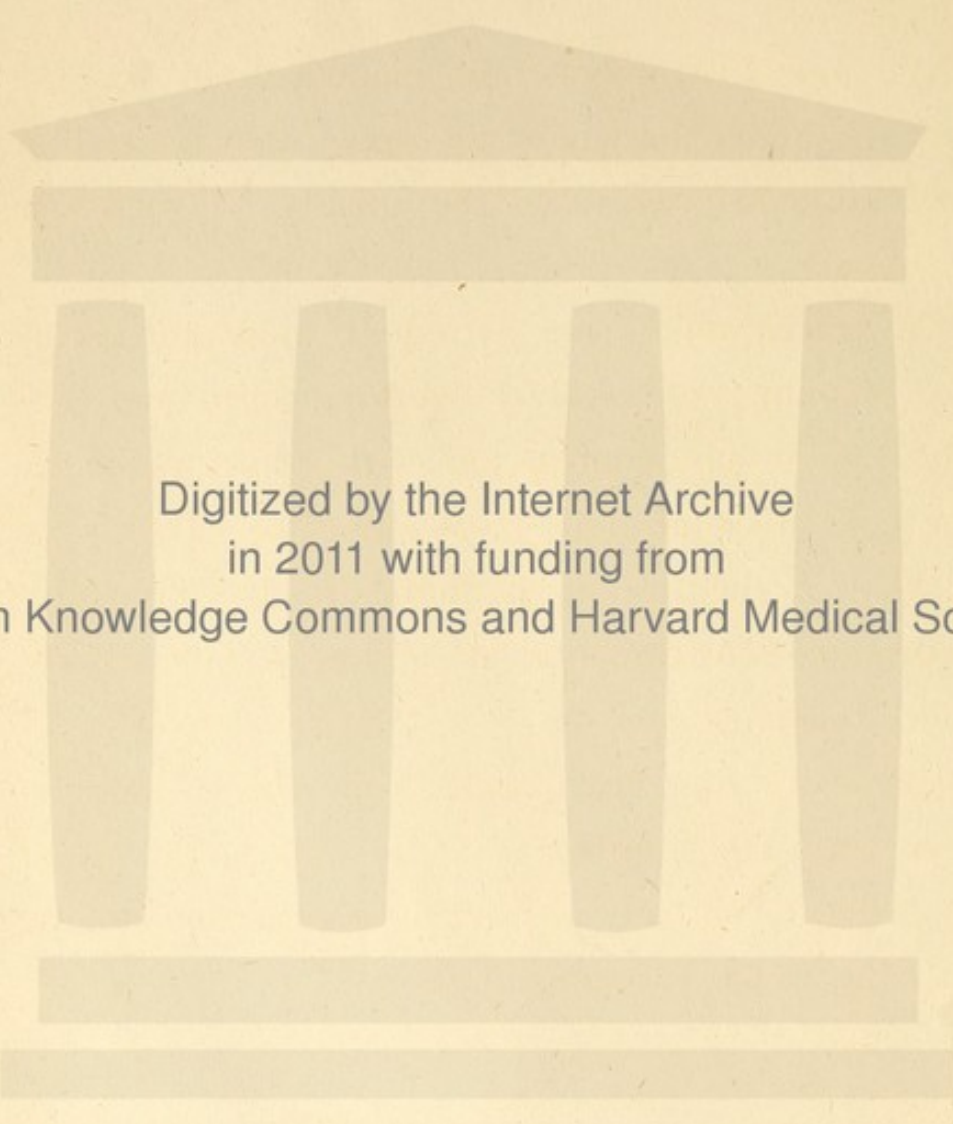
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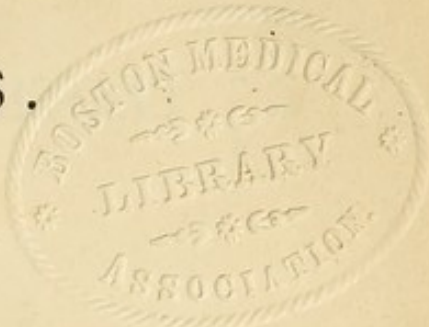
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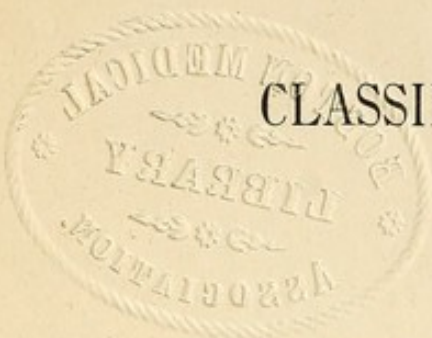
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153.	Silver " " with platina " "	72 00
154.	Exploring Trocars, per doz.....	15 00
155.	French Exploring Trocars, per doz.....	18 00
156.	Pocket Case " "	36 00
157.	Silver Probes, " pairs.....	12 00
158.	German Silver do., " "	6 00
159.	Plated Female Catheters, "	6 00
160.	" Male and Female do., combined, per doz.....	24 00
161.	Silver Female Catheters, "	12 00, 15 00
162.	" Male and Female do., combined, "	36 00
163.	Belloc's Canulas, plated, per doz.....	27 00
164.	" " silver, "	48 00
165.	Canulated Needles, "	18 00
166.	Suture " assorted, "	1 00
167.	Hare-lip " "	4 50
168.	" Pins, per 100.....	75
169.	Nelaton's Probes, with Silver Directors, per doz.....	24 00
170.	Needle Forceps, per doz., Sand's.....	54 00

Vaccinating Instruments, Lancets, Lancet Cases, etc.

171.	Needle Forceps, per doz., Prout's.....	\$42 00
172.	Post's Needle Director, per doz.....	12 00
173.	Plain Directors, with Artery Needles, combined, per doz.....	12 00
174.	Buck's Pin Director, each.....	2 00
175.	U. S. A. Vaccinators, in hard rubber case, with place for vaccine virus.....	2 00
176.	Scarificators for lymph, each.....	4 50
177.	Automatic Vaccinator.....	3 00, 3 50
178.	Pocket Case " with two needle points in silver case.....	5 00
179.	Long Spear-point Lancets.....	75
180.	Lancets with Comb-scratcher.....	1 00
181.	Fine Navy Thumb Lancets, concaved, per doz.....	9 00
182.	" Spear-point " "	9 00
183.	Brass Spring " in cases, "	15 00
184.	German Silver Spring " " "	21 00
185.	Silver " " " "	72 00
186.	Spring Lancet Blades, "	2 00
187.	Lancet Cases, paper or leather, one hole, "	1 00
188.	" " two holes, "	1 75
189.	" Silver, chased, one hole, each... ..	3 50
190.	" " " two holes, "	5 00
191.	" " " four holes, "	7 00
192.	" Scotch Plaid, wood, four holes, each.....	1 00 to 1 50
193.	" German Silver, one hole, each.....	2 00
194.	" " " two holes, "	3 00
195.	" " " four holes, "	4 00

Obstetric Instruments and Cases.

196.	Complete Obstetric Case, Brickell's.....	\$50 00
197.	" " " in valise form, with instruments, nickel plated, latest style.....	75 00, 85 00
198.	Elliot's Obstetric Set, in Case.....	36 00
199.	" " " Pouch.....	30 00
200.	Thomas' " " Case.....	100 00
201.	Bedford's " " "	20 00
202.	Taylor's " " "	25 00
203.	Hodge's " " "	16 00
204.	Elliot's Forceps.....	9 50
205.	Taylor's "	11 00
206.	Bedford's "	9 00
207.	Budd's "	9 00
208.	Knight's "	8 00
209.	Hodges' "	7 00
210.	White's "	8 00
211.	Simpson's "	8 50
212.	Thomas' "	8 00
213.	Deweese's "	8 00
214.	Davis' "	7 50
215.	Bethel's "	7 50

Obstetric Instruments and Cases.

(Continued.)

216.	Bond's Forceps, Rock Joint.....	\$7 50
217.	Brickell's ".....	10 00
218.	" Guarded Blunt Hook, }.....	5 50
219.	" " Crotchet, }.....	5 50
220.	" Vectus, }.....	4 00
221.	" Perforator, }.....	5 00
222.	" Craniotomy Forceps, each, straight and curved, nickel-plated.....	4 50
223.	Wallace's " ".....	8 00
224.	Heighton's Forceps.....	8 00
225.	Churchill's ".....	8 00
226.	Ritgen's ".....	8 00
227.	Dubois' ".....	12 00
228.	Horton's " with ratchet.....	10 00
229.	Blunt Hook and Crochet, each in one handle.....	1 75
230.	" " " combined.....	2 00
231.	Taylor's Blunt Hook and Crotchet, each in one handle.....	2 00
232.	Taylor's Craniotomy Forceps.....	5 00
233.	Elliot's Cranioclast.....	14 00
234.	" Craniotomy Forceps.....	5 00, 6 00
235.	Thomas' Perforating Trephine, plated.....	10 00
236.	" Perforator.....	6 00
237.	Bedford's ".....	3 00
238.	Smellies' " best, with Pin.....	3 50
239.	Bottles, with metal caps, each.....	1 00
240.	Budd's Craniotomy Forceps.....	5 00
241.	Meigs' " ".....	5 00
242.	Cephalotribes, each.....	20 00
243.	" Hodges'.....	20 00
244.	" Braun's Improved.....	28 00
245.	Barnes' Cranioclast.....	12 00
246.	Simpson's ".....	8 00
247.	Thomas' ".....	8 00
248.	Davis' Osteomist.....	12 00
249.	Simpson's " right and left.....	3 00
250.	Bedford's Guarded Crotchet.....	5 00
251.	Blot's Perforator.....	6 00
252.	Bigby's ".....	4 00
253.	Holmes' ".....	4 50
254.	Hodges' ".....	2 50
255.	Oldham's ".....	10 00
256.	Vectis.....	2 50
257.	" double end.....	4 00
258.	" folding.....	4 00
259.	Placenta Hooks.....	1 50
260.	Denman's Perforator.....	2 50
261.	Placenta Forceps.....	3 00
262.	" " Hodges'.....	6 00
263.	" " Bond's.....	2 50
264.	Johnson's Tractors.....	4 00
265.	Simpson's ".....	2 50

Obstetric Instruments and Cases

(Continued.)

266. Uteroscopes.....	\$4 00
267. Female Catheters.....	50c., 75c., 1 00
268. Bandage Scissors.....	2 00
269. Empty Obstetric Cases.....	12 00
270. " " Pouches, to roll up.....	4 00
271. Obstetric Manikins.....	35 00, 50 00, 150 00

Uterine Cases and Instruments.

272. Peaslee's Uterine Case.....	\$60 00
272a. Emmet's Vesico-Vaginal Fistula Case.....	75 00
273. Sims' " " " ".....	50 00
274. Uterine Dressing Case, Thomas'.....	50 00
275. " " " Barker's.....	15 00
276. Emmet's Speculum.....	20 00
277. Thomas' " Modification of Sims'.....	10 00
278. Nott's ".....	8 00
279. Cusco's ".....	7 00
280. Sims' " silver-plated.....	4 50
281. " " nickel ".....	4 00
282. Four-blade ".....	10 00
283. " " improved.....	12 00
284. Three-blade ".....	10 00
285. Two-blade ".....	7 00
286. Recamiere's ".....	9 00
287. Buttles' ".....	2 00
288. Storers' ".....	6 00
289. Smith's ".....	12 00
290. Meadow's ".....	12 00
291. Thomas' " Telescopic.....	8 00
292. Ricord's ".....	6 00
293. Simpson's ".....	8 00
294. Dixon's ".....	8 00
295. Metal cylind'r.....	2 50
296. Ivory " ".....	10 00
297. Boxwood ".....	4 00
298. Horn ".....	2 00
299. Hard Rubber " nickel-plated inside, patented.....	3 00
300. Ebony ".....	1 00
301. Porcelain ".....	75
302. Wire ".....	2 50
303. Meadow's Recto-Vaginal Speculum.....	15 00
304. Bozeman's ".....	20 00
305. Hough's ".....	9 00
306. Dr. John Byrne's (Brooklyn) ".....	11 00
307. Taylor's ".....	6 00
308. Sims' New Universal ".....	4 00, 4 50
309. Glass Reflecting Speculum.....	50
310. " " Fenestrated Speculum.....	75
311. " " English ".....	1 50
312. Emmet's Glass Vaginal Dilators.....	75

Uterine Cases and Instruments.

(Continued.)

313.	Plain Glass Dilators.....	\$0 50
314.	Elliot's Intra Uterine Speculum	10 00
315.	Emmet's Forceps.....	3 00
316.	“ Scissors, assorted.....	4 50
317.	“ Needles, per doz.....	1 50
318.	“ Needle Forceps.....	3 00
319.	“ Wire Twisting.....	3 00
320.	“ Tenaculum.....	1 50
321.	Sims' Shield.....	1 50
322.	“ Wire Carrier.....	1 50
323.	“ Depressor.....	2 00
324.	Emmet's Probe, pure silver.....	1 25
325.	“ “ $\frac{1}{2}$ “	1 00
326.	“ Applicator $\frac{1}{2}$ “	1 00
327.	“ “ pure “	1 25
328.	“ Probe and Applicator, combined.	4 00
329.	Sims' Sound.....	1 50
330.	Simpson's Sound.....	2 00
331.	Sims' Replacer.....	8 00
332.	Gardner's “	8 00
333.	Emmet's “	5 00
334.	Uterine Sponge Holder.....	1 00
335.	“ Caustic “	1 50, 5 00
336.	“ “ “ Wallisch's.....	2 25
337.	“ “ Forceps.....	4 00
338.	Buttles' Uterine Forceps.....	4 50
339.	“ “ Probes, Hard Rubber.....	40
340.	“ “ Sounds, “	1 50
341.	“ “ “ Pure Silver, in one handle.....	5 00
342.	Emmet's Revolving Knife.....	10 00
343.	Sims' “ “ latest improved, 4 blades.....	12 00
344.	Barker's Uterine Scarifier.....	3 00
345.	Chapman's “ “	1 75, 2 50
346.	Buttles' “ “	1 75
347.	Butler's Guarded “	3 00
348.	Simpson's Uterotome.....	8 00
349.	White's Hysteratome.....	12 00
349a.	Peaslee's “	5 00
349b.	“ Sound.....	2 50
350.	Lendt's Intra Uterine Caustic Probe.....	2 50, 3 00
351.	Porcelain Cups for melting Caustic.....	25
352.	Platina “ “ “	3 75
353.	Intra Uterine Suppositor.....	2 50
354.	Hard Rubber “	2 00
355.	“ “ Cylinder for Cupping.....	1 50
356.	Atlee's Uterine Dilator.....	4 00
357.	Nott's “ “	4 00
358.	Priestly's Uterine Dilator.....	12 00
359.	Carbolized Sponge Tents, per doz... ..	2 00
360.	“ “ “ “ large.....	3 00
361.	Emmet's “ “ “ curved Zamoka Sponge...3 50,	4 00

Uterine Cases and Instruments.

(Continued.)

362.	Sea Tangle Tents, per doz.....	\$2 75
363.	Barnes' Hour-glass Dilators, each.....	1 25
364.	" Uterine " pr. set.....	5 00
365.	Simpson's " " ".....	8 00
366.	" " " " silver.....	20 00
367.	Taylor's " " ".....	10 00
368.	Peaslee's " " " in a case....	8 00
369.	Bozeman's " " each.....	3 50
370.	Sims' Ecraseurs, each.....	50 00
371.	Chassaignac's Ecraseurs, with extra wire cable and ratchet.....	22 50
372.	Plain Wire Ecraseurs.....	5 00, 6 00
373.	Double Chain ".....	25 00
374.	Museux's Tumor Forceps.....	3 00
375.	Herteloupe's " ".....	3 00
376.	Volsella " Hook in handle.....	2 00
377.	Intra Uterine Syringe, Hard Rubber.....	1 50
378.	" " " Lendt's.....	9 25
379.	" " " Buttles'.....	3 00
380.	Chaffee's Uterine Spoon.....	3 00
381.	Emmet's Speculum Forceps.....	3 00
382.	Polypus Forceps, with 4 joints (new).....	5 50
383.	Scissors, " 4 ".....	6 00
384.	Atlee's Clamp.....	5 00
385.	Spencer Wells' Clamp.....	6 00
386.	" " Trocar Ovarian modified.....	15 00
387.	Emmet's " ".....	5 00
388.	Uterine Dressing Forceps.....	2 50, 3 00
389.	Brown's Tampon.....	2 00
390.	American ".....	1 00
391.	Pure Gum Inflating Pessaries, each.....	1 00
392.	" Ring " ".....	1 00
393.	Simpson's Intra Uterine " ".....	5 00
394.	Zwank's " ".....	3 00
395.	Conant's " ".....	3 00
396.	Noeggerath's " ".....	1 00
397.	Thomas' Galvanic " ".....	2 50
398.	Peaslee's " ".....	10 00
399.	Sponge " ".....	25
400.	Morrell's " ".....	12 00
401.	Malleable Gutta-Percha " ".....	75
402.	Cutter's " ".....	2 75
403.	Thomas' Anteversion " ".....	2 50
404.	" Retroversion " ".....	1 75
405.	Buttles' " ".....	1 50
406.	Sims' " pr. doz.....	4 50
407.	Volsella Forceps.....	2 50, 3 00, 3 50
408.	Gutta-Percha Pessaries, assorted shapes, per doz.....	5 00 6 00
409.	Hard Rubber " " " ".....	9 00
410.	Hofmann's " " sizes.....	1 50
411.	Hard Wood " " ".....	75

Uterine Cases and Instruments.

(Continued.)

412. Glass Pessaries, assorted sizes.....	\$0 25
413. Gum " " "	50
414. Intra Uterine Pessaries, assorted sizes, Peaslee's.....	7 50
415. Fraser's Pessary.....	5 00
416. Peaslee's Whalebone-covered.....	75
417. Sims' Metal Catheters, each.....	50
418. Silver Female " "	1 00
419. Division " " " Silver.....	5 00
420. " " " " Plated.....	3 00
421. Female Urinals, Pure Gum.....	5 00
422. Nott's Uterine Sound and Catheter Holder.....	4 50
423. " Double Channel Uterine Catheters.....	3 50
424. Byrnes' " Reflux "	3 00
425. Nott's Depressor.....	2 00
426. " Sponge Tent Applicator.....	1 00
427. " Tenaculum Forceps.....	3 50
428. Pinkham's Uterine Scarifier.....	7 50
429. Storer's Ovarian Clamp.....	13 00
430. Dr. Peaslee's Scarifier.....	5 00
431. " " New "	10 00
432. " " Depressor.....	2 50
433. " Sims' New "	2 00
434. " Cutter's "	2 50
435. " Sims' New Needle Forceps.....	10 00
436. " " New Volsella Hook.....	10 00
437. " " Tampon Screw.....	1 50
438. " " Eucleator.....	4 00
439. " " " blunt hook.....	5 00
440. " " Needle, improved.....	4 00
441. " " Curette	1 75
442. " Thomas' "	2 50
443. " Sims' Cotton Applicator.....	2 50
444. " " " Screws, each.....	75
445. " Thomas' Dilator or Glove Stretcher.....	4 50
446. King's Pelvimeter.....	4 00
447. Simpson's Craneoclast.....	9 00
448. Noeggerath's Uterine Elevator.....	9 00
449. Stowe's Retroversion Elevator.....	4 50
450. Gardner's Manifold Instrument.....	12 00
451. Thomas' Hard Rubber Probe, for searching.....	2 50
452. " Dilator	5 00
453. Atlee's Clamp.....	7 00
454. Hick's Wire Ecraseur, three points.....	18 00
455. Thomas' Punching Forceps.....	6 00
456. Dawson's Clamp.....	9 00
457. Otis' Urethral Syringe.....	5 00
458. Bumstead's "	4 50
459. Segala's Speculum.....	9 00
460. Bozeman's " new.....	16 00
461. Edwards' Caustic Holder.....	2 50

Uterine Cases and Instruments.

(Continued.)

462. Campbell's Tumor Forceps.....	\$8 00
463. White's Hysterotome.....	12 00
464. Skeene's Sound and Scarifier.....	6 00
465. Simpson's Hysterotome.....	7 00
466. Greenhalz's Tumor Forceps.....	8 00
467. Briggs' Lithotome Caché.....	8 00
468. Bozeman's Needle Carrier, pair.....	8 00

Urethral Instruments and Cases.

469. Bumstead's Stricture Case.....	\$150 00
470. Drs. Van Buren's & Keyes' Stricture Case.....	100 00
471. Gouley's Case for Stricture.....	50 00
472. Van Buren's Set Steel Sounds, nickel-plated, extra fine, in case..	36 00
473. Gouley's " " " " " " ..	36 00
474. Bumstead's " " " " " " ..	36 00
475. The above Sets in Second Quality Steel.....	24 00
476. Civiale's Urethrotome.....	7 50
477. Gouley's " for Meatus.....	2 50
478. Maissonneuve's " ..	14 00
479. " " with Tunneled Modification.....	15 00
480. Holt's Dilators.....	20 00
481. " " with Tunneled Modification.....	22 00
482. " Urethrotome and Dilators.....	25 00
483. Thompson's Dilator, improved.....	12 00
484. Calculus Extractors, assorted.....	5 00
485. Forceps for extracting Calculus.....	.6 00, 7 50, 10 00
486. Lithotrites.....	18 00, 35 00, 50 00, 75 00
487. Lithotomy Staffs.....	2 00
488. " Bistouries.....	1 75
489. " Scalpels.....	1 75
490. " Bisector, Wood's.....	5 00
491. " Staffs, Little's, plated.....	2 50
492. " Staff, Syme's.....	2 50
493. " Catheter, Gouley's.....	3 50
494. " Director, " ..	3 00
495. " " Syme's.....	2 00
496. Bladder Syringe, Ford's.....	4 00
497. Bumstead's Urethrotomes, four in set.....	50 00
498. Bistoury Cache, double.....	25 00
499. " " single.....	15 00
500. Hamula and Scoop.....	2 50
501. Erichsen's Scoop.....	2 00
502. Gorgets, plain.....	2 00
503. Wackley's Dilators.....	10 00 to 75 00
504. Mason's Bivalve Hard Rubber Urethroscope.....	4 00
505. Clover's Wash Bottle.....	15 00
506. Soft Rubber Retention Catheters.....	1 00
507. Spermatorrhœa Rings, each.....	1 50

Urethral Instruments and Cases.

(Continued.)

508.	English Gum Elastic Catheters, per doz.....	\$3 00
509.	" " Bougies.....	3 00
510.	Fine " " " Conical.....	9 00
511.	" " " " Olive-point.....	9 00
512.	" " " " Aboule.....	12 00
513.	" " " " Conical, Nos. 0-00-000 Filiform.....	9 00
514.	French Gum Catheters.....	1 75
515.	" " Bougies.....	1 75
516.	Fine Wax " 	2 00
517.	English, Fine Bougies, 13 to 16.....	6 00
518.	" " Catheters, 13 to 16.....	9 00
519.	Whalebone Bougies, assorted.....	7 20
520.	Metallic " " 	4 50
521.	" Catheters, " 	6 00
522.	Silver Male " 	24 00
523.	" Female " 	10 50
524.	" Prostate " 	48 00
525.	" Male and Female Catheters, combined.....	36 00
526.	Division Silver Catheter.....	60 00
527.	Lallemand's Bougies.....	48 00
528.	Ford's Female Division Catheters.....	3 00
529.	One Set Pure Silver Catheters, in case.....	40 00
530.	" ex heavy " " 	36 00
531.	Fine French Bougies, Aboule.....	12 00
532.	" " " " Conical.....	9 00
533.	" " Catheters, " 	9 00
534.	" " Olive, " 	9 00
535.	Laminaria Digitata Bougies.....	18 00
536.	Endoscopes, each.....	60 00
537.	Meatoscopes " 	2 00
538.	Urinometers.....	75
539.	" Standard 	1 50
540.	" " Hard Rubber.....	3 00
541.	Urinary Test Case.....	25 00
542.	" " " 	6 50
543.	" " Stand.....	1 50, 2 00
544.	" Cabinet.....	30 00
545.	Platinum, per sheet.....	3 00
546.	Test Tubes, per doz.....	75
547.	Brass Forceps, for holding Platinum Foil.....	75
548.	Gouley's Retention Catheter.....	3 50
549.	Thompson's Searcher.....	5 00
550.	Little's " 	3 50
551.	Thompson's Catheter Syringe.....	12 00
552.	Vance's Urinary Case.....	6 00
553.	Squire's Articulating Catheter, Silver.....	7 00
554.	Division Catheters, Gum-elastic double webb.....	3 50
555.	Prostate " " " 	75
556.	" " " open end.....	75
557.	Tunnel Sound.....	3 50
558.	Improved Powder Syringe for Urethra.....	5 00

Penis Instruments.

559.	Phymosis Forceps.....	\$2 50
560.	" " Weisse's.....	5 00
561.	" " Vidal's.....	2 50
562.	" Needle, Lancet shape.....	25
563.	" Knife.....	2 00
564.	" Director.....	1 00
565.	Congestor.....	10 00
566.	Gonorrhœa Bags.....	2 00
567.	" " with Suspensories attached.....	2 50
568.	Pure Gum Rubber Urinals, Male and Female, assorted... 2 00 to	6 00
569.	Bumstead's Lamp, for Syphilis.....	3 00
570.	Mercury and Sulphur Baths, each.....	3 00

Exsecting and Necrosis Cases and Instruments.

571.	Resection and Necrosis Case.....	\$65 00
572.	Hamilton's Bone Forceps, each.....	8 00
573.	Isaac's " " ".....	8 00
574.	Right and Left do., Curved, ".....	5 00
575.	Large Rongiers, ".....	6 00
576.	Medium " ".....	3 50
577.	Small " ".....	3 00
578.	Hoffmann's Gouge Forceps, ".....	4 00
579.	Heavy Sequestrum " ".....	3 00
580.	Duck-bill " " ".....	2 50
581.	U. S. Army " " ".....	2 50
582.	Fine Gouges, ".....	1 50
583.	" Chisels, ".....	1 50
584.	Plain " ".....	1 00
585.	" Gouges, ".....	1 00
586.	Necrosis Hammers, ".....	3 00
587.	Wood Mallets, ".....	1 25
588.	Drills, per set, Bainard's.....	3 50
589.	Rotary Drill, Hamilton's.....	8 00
590.	Lyon-holding Forceps.....	3 50
591.	Periosteum Spatulas.....	2 50
592.	" " in handles.....	2 00
593.	" " Hamilton's.....	2 00
594.	Lenticular Knives.....	1 50
595.	Elevator.....	1 50
596.	Bone Scraper.....	1 50
597.	Articulated Saw.....	3 50
598.	Chain ".....	10 00
599.	Bow ".....	8 00
600.	Elevator and Lenticular Knife, combined.....	1 50
601.	" " Bone Scraper, combined.....	1 50
602.	Sequestrum and Nail Forceps.....	3 00
603.	German Silver Retractors, per pair.....	1 50
604.	Steel Retractors, in handles, each.....	1 50
605.	Forceps for cutting pins.....	3 00
606.	" " removing caries.....	3 50
607.	" Curved, assorted, each.....	4 00

Anatomical, Post-mortem, Dissecting and Microscopic Cases and Instruments.

608.	Bellevue Hospital Post-mortem Case.....	\$75 00
609.	Finnel's " "	15 00
610.	Dr. E. T. Harsh's " "	75 00
611.	Brain Knives.....	2 50, 4 25
612.	Amputating Knives.....	2 50, 4 25
613.	Heavy Cartilage Knives.....	2 00, 3 00
614.	Dissecting " "	1 00, 1 50
615.	" " " fine.....	2 00
616.	" Scissors, "	1 50
617.	" Scalpels, "	1 00
618.	" Forceps, "	1 00
619.	" " plain.....	75
620.	" Tenacula, "	75
621.	" " fine.....	1 00
622.	Chain Hooks.....	50
623.	Blow-Pipes.....	25
624.	" with stop-cocks.....	2 00
625.	Post-mortem Saws.....	5 00, 6 00
626.	" Hammers.....	3 00
627.	" Forceps, long.....	2 00
628.	" " " curved.....	2 00
629.	Costotomes, long, each.....	4 00
630.	" "	3 00
631.	Entrotomes, "	2 50
632.	Broncotomes, "	1 50
633.	Shifting-back Saw.....	6 00
634.	Post-mortem "	6 00
635.	" " plain	3 00
636.	Heavy Chisels, in handles, for Spine.....	3 00
637.	Plain Chisels.....	1 00
638.	Screw Drivers.....	1 50
639.	Bone Scrapers.....	1 00
640.	Chisels and Scrapers, for preparing Bones, per doz.....	15 00
641.	Anatomical Syringes, in case, fine, each.....	40 00
642.	" " " No. 2.....	25 00
643.	Microscopic Syringes.....	1 50 to 10 00
644.	" " rubber bulb.....	2 50
645.	Microscopes.....	1 50 to 500 00
646.	Matthews' Parallel Knives.....	10 00
647.	Flint's " "	10 00
648.	Valantin's " "	10 00
649.	Piffard's Cutisector.....	10 00
650.	Microscopic Dissecting Scalpels.....	1 50
651.	" " Needles.....	1 25
652.	" " Knives, double-edge.....	1 50
653.	" " Forceps.....	1 25
654.	" " Scissors.....	1 50
655.	Pray's Microscopic Knives.....	1 50
656.	Glass Holding Forceps.....	1 00
657.	Silver Gastric Tubes, each	6 00

Anatomical Preparations.

658.	Fine Bleached Articulated Skeletons.....	\$40 00 to 100 00
659.	“ “ Disarticulated “	40 00 to 75 00
660.	Skulls, “	25 00
661.	“ Articulated, 1 cut.....	15 00 to 25 00
662.	“ “ 6 “	40 00 to 75 00
663.	“ No. 1, each.....	12 00
664.	“ “ 2, “	10 00
665.	Section of Head, showing distribution of fifth pair of Nerves, connected with teeth and jaws, mounted, in vase.....	50 00
666.	Upper and Lower Maxilla, exhibiting Nerve and Artery on one side, and Artery and Vein on the other. Jaw carved and Teeth split to show the Nerve Cavity, mounted, in vase.....	35 00
667.	First and Second Dentition Upper and Lower Maxilla, mounted, with vase.....	20 00
668.	Comparison of the arch of the Upper Jaw in the infant and the adult, mounted, without vase.....	10 00
669.	Hands or Feet, each.....	4 00
670.	Obstetric Manikins, each.....	35 00
671.	Femurs, “	3 00
672.	Tibia and Fibula, “	4 00
673.	Ophthalmic Masks.....	12 00
674.	Elastic Pelvis.....	25 00
675.	Infants' Craniums.....	5 00
676.	“ Skeletons.....	15 00

Instruments for Operating on the Intestines and for Hernia.

677.	Boger's Director, with lateral extension	\$2 00
678.	Thompson's Bistoury.....	2 00
679.	Vidal de Cassis' Grooved Spatula.....	1 50
680.	Terre's Bistoury.....	1 50
681.	Cooper's “	1 25 to 2 00
682.	Pott's “	1 50
683.	Grimala's “ Sheathed.....	8 00
684.	Velpeau's Lancet-shaped Needle.....	1 50
685.	Blandin's Entrotome.....	4 00
686.	Dupuytren's “	5 00
687.	Gerdy's Needle.....	4 00
688.	Rigg's “	5 00
689.	Wood's “	2 50

Eye Instruments and Cases.

690.	Critchett's Hooked Needle.....	\$1 25
691.	Luzardis' “ “	1 50
692.	Scarpa's Curved “	1 25
693.	Hayes' Knife “	1 50
694.	Angular “ for removing foreign bodies.....	1 25

Eye Instruments and Cases.

(Continued.)

695. Walton's Grooved Needle, for soft cataract.....	\$2 00
696. Broad Paracenticis "	1 25
697. Knife "	1 50
698. Bowman's Stop "	1 50
699. Beers' Straight "	1 25
700. Carbon de Villard's Iris Needle.....	1 25
701. Levi's Needle, with an eye.....	1 75
702. Iris "	1 25
703. Walton's " for depression	1 25
704. Tattooing"	1 75
705. Parker's Fistula Lachrymalis Needle.....	1 75
706. Stilling's Canalicula Knife.....	1 50
707. Iris Knife, with Stop.....	1 75
708. Jaeger's Straight Keratome or Iridectomy Knife.....	1 50
709. Graefe's Linear Knife, concave.....	1 50
710. Scalpel, for operating on the lids of the face.....	1 50
711. Bowman's Canalicula Knife.....	1 75
712. Noyes' Movable Blade Canalicula Knife.....	4 00
713. Welker's Iridectomy "	12 00
714. Weber's Curved Canalicula "	1 75
715. Strabismus Hook and Bistoury.....	2 50
716. Jaeger's Bistoury, for the Canalicula.....	8 00
717. Iris Knife.....	1 50
718. Noyes' Canalicula Knife.....	1 75
719. Sickle-shaped Iris Knife.....	1 75
720. Knife, for enlarging the section.....	1 50
721. Right and Left Angular Knives, for enlarging the section.....	1 75
722. Beers' Cataract Knives.....	1 50
723. Snellen's Entropium Forceps, each.....	2 50
724. Strabismus " "	1 25
725. Sands' Needle " "	4 50
726. Curved Strabismus " "	1 25
727. Cross-bar Entropium "	2 25
728. Prout's Entropium " right and left.....	4 00
729. Larnie's Forcep Needle, for false membranes.....	4 50
730. Cilia Forceps	1 25
731. Liebreich's Iris Forceps.....	4 00
732. Walton's Self-holding Iris Forceps.....	2 50
733. Graefe's Fixation "	2 50
734. Prout's Needle "	3 50
735. Desmarre's Entropium " shell-plated.....	3 00
736. Straight Iris "	1 50
737. Ratti's Trichiasis "	3 00
738. Graefe's Angular Iris "	1 75
739. Noyes' Fixation "	2 00
740. Weld's Canula "	12 00
741 " " Scissors " and Forcep Needle, in one handle.....	15 00
742. Strabismus Tenacula.....	1 25
743. Desmarre's Lid Holders.....	1 75

Eye Instruments and Cases.

(Continued.)

744. Desmarre's Many-Pronged Hook, for obliterating the sac.....	\$2 00
745. Ophthalmostate.....	1 50
746. Double Hook, for fixing the eye.....	1 50
747. Tyrrell's Sharp Iris Hook.....	1 25
748. " Blunt "	1 25
749. Pamard's Pique, for fixing the eye.....	1 50
750. Noyes' Ophthalmostate.....	2 00
751. Cystotome, for lacerating the capsule	1 50
752. Lens Scoop and Cystotome.....	2 50
753. Graefe's Retractor.....	1 50
754. Jaeger's Angular Keratome, for artificial pupil.....	1 75
755. Desmarre's Scarificator.....	1 50
756. Gouge, for removing foreign bodies.....	1 50
757. Spud, for applying ointment.....	1 25
758. Jaeger's Bistoury Caché, for the canalicular.....	8 00
759. Disc Spud, for removing foreign bodies.....	1 25
760. Spatula, for applying ointment and for inverting the lids.....	1 25
761. Schaft's and other Scoops.....	1 75
762. Fenestrated Lens Scoop.....	1 75
763. Graefe's " "	1 75
764. Daviel's Curette.....	1 50
765. Graefe's Speculum.....	2 50
766. Noyes' Plain "	1 75
767. Plain Wire "	50
768. Desmarre's Cautery Iron, for obliterating the sac.....	3 00
769. Bowman's Instrument for exhausting soft cataract.....	4 50
770. Leibold's Speculum.....	2 50
771. Noyes' Latest "	4 50
772. Hart's "	1 50
773. Desmarre's Paracentesis Trocar.....	1 75
774. Anel's Syringe, silver, gold and silver points.....	8 50, 12 00
775. " " hard rubber, gold and silver points.....	5 50
776. Althof's Iridectomy Scissors.....	5 50
777. Jaeger's Plate Lid Holder, hard rubber.....	1 00
778. Iris Scissors, curved flatwise.....	1 50
779. Angular Strabismus Scissors.....	1 50
780. Mannoir's "	2 00
781. Chadwick's Pterigium "	6 00
782. Straight Iris "	1 50
783. Noyes' " "	4 50
784. Strabismus "	1 50
785. Weber's Graduated Dilator.....	1 00
786. Stokes' Eye-lid Compressor.....	3 00
787. Galezowski's Canalicular Dilator.....	1 00
788. Jaeger's Ophthalmostate.....	8 00
789. Strabometer.....	2 50
790. Lawrence's Eye Lid Tourniquet.....	3 00
791. Blanchet's Instrument for exhausting soft cataract.....	2 25
792. Set Bowman's Probes, 1-8.....	4 00
793. Bowman's Director.....	75

Eye Instruments and Cases.

(Continued.)

794.	Anel's Probe.....	\$0 50
795.	Welker's Iridectomy Instruments.....	12 00
796.	Speir's Lachrymal Catheter.....	1 00
797.	Drop Glass.....	20
798.	Daviel's Curette.....	1 50
799.	Double Hook, for Strabismus.....	1 50
800.	Hard Rubber Style.....	25
801.	Lachrymal Canula, silver.	50
802.	" " gold.....	1 50
803.	McFarland's Lachrymal Syringe.....	3 50
804.	Duchesne's Trocar.....	4 50
805.	Ball's Double Hook, for extirpating the eye-ball.....	3 00
806.	Loring's Ophthalmoscope, latest.....	25 00
807.	Knapp's double "	40 00
808.	" single " improved.....	24 00
809.	Liebreich's " No. 1.....	5 00
810.	" " best American make.....	7 00
811.	" " No. 2.....	5 50
812.	" " No. 3, sliding handle.....	6 00
813.	Soliell's "	6 00
814.	Stelwag's "	12 00
815.	Nachet's "	25 00
816.	Trosch's "	5 00
817.	Graefe's "	6 50
818.	Galezowsky's "	22 00
819.	Glass Eye-Baths, each.....	75
820.	Atropine Bottles, "	75
821.	Eye Shades, single, per doz.....	3 00, 4 50
822.	" " double, "	6 00
823.	" Patches.....	3 00
824.	" Actual Cautery Irons.....	2 00
825.	" Syringe, Walton's silver, very fine.....	18 00
826.	" " Anel's " " "	15 00
827.	" " German " " "	8 00
828.	" " Hard rubber and hard rubber points.....	2 00
829.	" " Glass and silver points.....	8 00
830.	" " Noyes'.....	10 00
831.	Set Cylindrical Glasses, in case.....	50 00
832.	" Spherical " "	50 00
833.	" Snellen's Test Types.....	2 50
834.	Pray's Astigmatism.....	2 50
835.	Herteloupe's Artificial Leech.....	15 00
836.	Complete Eye Case, <i>a</i>	100 00
837.	" " " <i>b</i>	75 00
838.	" " " <i>c</i>	35 00
839.	" " " <i>d</i>	25 00
840.	Ophthalmostate, plain.....	1 50
841.	" " double.....	15 00
842.	Strabismometers.....	1 50
843.	Sea Tangle Dilators, per doz.....	2 75

Eye Instruments and Cases.

(Continued.)

844. Artificial Eyes, each.....	\$10 00 to \$25 00
845. Drop Tubes, "	25
846. Suture Needles, assorted, per doz.....	1 50
847. Fine Silk, China, Skeins, "	1 25

Ear Instruments and Cases.

848. Ear Case.....	\$40 00
849. Weber's Auroscope.....	10 00
850. Kramer's "	10 00
851. " Bivalve Speculum.....	2 25
852. Wild's Set, Silver " in horn case.....	5 00
853. " Plated " "	2 25
854. Toynbee's Set Ear " silver.....	6 00
855. " " " " plated.....	4 50
856. Simrock's Bivalve "	5 00
857. Speir's " "	4 00
858. Holcomb's Porcelain Ear Speculum.....	50
859. Glass Reflecting " "	75
860. Wild's Angular Forceps.....	2 00
861. Spring " "	2 00
862. Polypus Ear "	4 00
863. " " " Toynbee's.....	4 00
864. Siegel's Otoscope, for exhausting air, with hard rubber Ear Specula attached.....	5 00
865. Gruber's Ear Speculum, set of four, hard rubber.....	2 00
866. Ear Mirrors, 2½ inches in diameter, each.....	4 00
867. " Lenses, each.....	50
868. " Mirrors, small, each.....	4 00
869. Artificial Tympana, per pair.....	1 00
870. Holcomb's Meatus Knife.....	1 50
871. " Ear Spout.....	1 50
872. " Cotton Probe.....	30
873. Silver Eustachian Catheters, each.....	2 00
874. Plated " " "	1 50
875. Curved " " "	2 00
876. Gruber's Set of Tenatomes, for ear.....	6 50
877. " " Four-ear Specula, German Silver.....	4 00
878. Clark's Ear Snare.....	6 50
879. Ear Forceps, Hewson's.....	3 00
880. " Politzer's.....	2 25
881. Roosa's Hard Rubber Eustachian Catheters, per set of four.....	4 00
882. Eustachian Explorers, each.....	75
883. Toynbee's Otoscope.....	1 00
884. Mack's Diagnostic Tubes, each.....	1 00
885. Wild's Ear Canula.....	3 00
886. " " Snare, improved by Blake.....	6 00, 7 00, 8 00
887. Livingston's Caustic Probes.....	2 50
888. Gross's Ear Spoon.....	1 00

Ear Instruments and Cases.

(Continued.)

889.	Wood's Ear Scoop and Elevator.....	\$1 00
890.	Holcomb's Ear Syringe.....	1 00
891.	Politzer's Bag.....	2 00
892.	" " " best English, improved by Roosa.....	3 00
893.	Roosa's Apparatus for passing Vapor into the Eustachian Canal.	4 00
894.	Scalpel and Curette.....	2 00
895.	Hard Rubber Ear Syringe.....	1 50
896.	" " " " 4 oz. capacity.....	3 00
897.	Silver Ear Tubes, per pair.....	4 00
898.	" " " " Right and Left.....	5 00
899.	Conversation Tubes.....	3 00
900.	" " " Silk.....	5 00
901.	" " " fine ivory Mounts.....	10 00
902.	Japanned Ear Trumpets, assorted.....	2 50 to 8 00
903.	German Silver " ".....	4 50 to 20 00
904.	Silver " ".....	10 00 to 50 00
905.	Auricles, per pair.....	5 00
906.	Ear Douches.....	1 50
907.	" Scissors.....	2 50
908.	Roosa's Ear Forceps.....	5 00
909.	Speir's " Curette.....	1 00
910.	Roosa's Caustic Forceps.....	3 00
911.	" Glass Rod, for applying acids to the ear.....	25
912.	" Soft Rubber Ear Douche.....	2 00
913.	" Ear Spout.....	75
914.	Tuning Fork, key of C.....	1 00
915.	Apparatus for cupping around the ear, and exhausting air from the external ear.....	4 00
915a.	Dr. Pinkney's Improved Exhauster.....	20 00

Laryngeal, Oral, Nasal, and Trachea Instruments.

916.	Tobold's Laryngoscope, large, plated.....	\$25 00
917.	" " " small.....	16 00
918.	Czermack's " improved.....	15 00
919.	Laryngoscopic Mirrors, with Reiner's imp. head-band, 4½ in. diam.	12 00
920.	" " " " " " 4 ".....	10 00
921.	" " " " " " 3½ ".....	8 00
922.	" " " " " " 3 ".....	7 50
923.	" " " " " " 2½ ".....	6 50
924.	" " " " handles only.. 10 00, 7 50, 6 00, 5 00,	4 00
925.	Small Throat Mirrors, five sizes, each.....	1 25
926.	Improved Spring Handle Tonsil Instruments, Right and Left, in case.....	14 00
927.	Improved Spring Handle Tonsil Instruments, plain.....	10 00
928.	Fahnestock's " ".....	7 00
929.	Matthews' " ".....	10 00
930.	Amygdalotomes, Charriere's.....	18 00
931.	Tonsil Scissors.....	4 50
932.	" " Matthews'.....	2 00

Laryngeal, Oral, Nasal, and Trachea Instruments.

(Continued.)

933.	Tonsil Scissors, Erichsen's.....	\$5 00
934.	Guillotines.....	5 00 to 20 00
935.	Uvula Scissors.....	4 50, 6 00
936.	“ Tenaculum.....	1 50
937.	“ Hook, double.....	2 00
938.	“ “ gilt.....	3 00
939.	“ Forceps.....	2 00
940.	Tonsil Bistoury.....	1 50
941.	“ Forceps.....	2 50
942.	Throat “ Cusco's.....	4 00
943.	“ “ Ellsberg's.....	4 00
944.	“ “ Bond's.....	2 50
945.	“ Syringe, Silver.....	10 00
946.	“ “ Hard Rubber, Silver Tubes.....	6 00
947.	“ “ “ “.....	1 50
948.	“ “ Glass.....	1 50
949.	Universal Syringe.....	12 00
950.	Staphyloraphy Needles.....	1 00
951.	“ Forceps.....	2 00
952.	“ Knives, each.....	1 50
953.	“ Chisels.....	1 50
954.	“ Needle Holders, with movable Points, each.....	5 00
955.	Whitehead's Mouth Speculum and Tongue Depressor, for the operation of Staphyloraphy.....	8 00
956.	Epiglottis Scarifiers, each.....	1 50
957.	Buck's “ “.....	1 50
958.	Plain “ “.....	1 50
959.	Guarded “ “.....	5 00 to 15 00
960.	Œdema Knives, “.....	1 50
961.	Insufflators and Sponge-holders, each.....	2 00
962.	Pulverisateurs, Hard Rubber, new, bulb on top.....	3 25
963.	Insufflator, for Powder.....	1 75
964.	Buttles' Inhaler, for Nose and Throat.....	3 00
965.	Olive Tar Inhalers.....	1 00
966.	Richardson's Spray Apparatus, silver.....	7 50
967.	Spray Apparatus, Revolving Tube, two points, hard rubber, 5 00,.....	6 00
968.	“ “ with plated tube.....	4 50, 5 00, 5 50
969.	“ “ curved glass.....	4 00
970.	“ “ plain glass.....	3 00
971.	C. & S. Steam Atomizer.....	6 00
972.	“ Hand “.....	4 00
973.	Catarrhal Douche, Dr. Warner's.....	1 50
974.	Croup Kettles, each.....	5 00
975.	Buck's Sponge Holder.....	1 00
976.	Plain Whalebone Probangs, per doz.....	1 50
977.	Whalebone Probangs, per doz., ivory-tipped.....	2 00
978.	Probangs, with silver bucket, each.....	3 00
979.	“ silver, anchor, steel spring.....	3 00
980.	“ in sets, Richardson's.....	9 00
981.	“ Bristle.....	2 50

Laryngeal, Oral, Nasal, and Trachea Instruments.

(Continued.)

982.	1 doz. Hair Brushes, to one handle.....	\$2 00
983.	Caustic Holder, Rubber, silver end.....	2 25
984.	“ “ Ebony.....	1 50
985.	“ “ with spiral wire.....	6 00
986.	Hinged Tongue Spatulas, Plated.....	1 50
987.	“ “ “ German Silver.....	2 00
988.	“ “ “ Army.....	1 50
989.	“ “ “ U. S. Navy.....	1 50
990.	“ “ “ Gilt.....	5 00
991.	Pearl “ “	2 00 to 10 00
992.	Plain Curved Tongue Spatulas, and jeweled	2 00 to 50 00
993.	“ “ “ “	50c. to 75
994.	Hard Rubber “ “	1 50 to 2 50
995.	Horn “ “	1 00
996.	German Silver “ “ folding.....	2 00
997.	Türck's “ “ in set of three.....	6 00
998.	Mouth Speculum, Plain.....	2 00
999.	“ “ Hinged.....	4 00
1000.	Œsophagus Bougies, English, each.....	1 50
1001.	“ “ Whalebone, ivory ends, four sizes.....	4 00
1002.	“ Forceps, Museux's.....	3 00
1003.	“ Catheter, for administering nourishment, artificially	2 00
1004.	Feeding Tubes, for lunatics, each.....	10 00
1005.	Suture Needles, per doz.....	2 50
1006.	Heister's Screw, for Anchylosis of Jaw.....	5 00
1007.	Mott's “ “ “	5 00
1008.	Improved Throat Brush, universal joint.....	2 50
1009.	Simrock's Rhinoscope.....	8 50
1010.	Pomero's Eustachian Catheter Holder.....	3 00
1011.	Folsom's Nose Speculum.....	2 00
1012.	Whitehead's Staphyloraphy Forceps.....	4 50
1013.	Cheek Retractor.....	3 00
1014.	Schaffer's Scoop, complete.....	8 00
1015.	Chassaignac's Tracheal Dilator.....	3 00
1016.	Improved Laryngeal Scoop.....	6 00
1017.	Granger's Sponge Holder.....	2 50
1018.	Semeleder's Guillotine.....	10 00
1019.	“ Laryngeal Forceps.....	10 00
1020.	“ “ Knife	10 00
1021.	New Complete Stomach Pump, nickel-plated.....	20 00
1022.	Nasal Polypus Forceps.....	2 50
1023.	“ “ Canula.....	2 00 to 3 00
1024.	Syphonic Nasal Douche.....	1 50
1025.	Electric Galvanizer.....	6 00
1026.	Hare-lip Forceps	4 00
1027.	“ Scissors.....	1 50
1028.	“ Sliding Forceps.....	5 00
1029.	“ Needles, per doz.....	4 50
1030.	“ Pins, per 100.....	75
1031.	Post's Hare-lip Pin Director.....	1 00

Laryngeal, Oral, Nasal, and Trachea Instruments.

(Continued.)

1032.	Palate Director.....	\$0 75
1033.	" Scissors.....	1 50
1034.	Needle Forceps.....	3 50, 4 50
1035.	Trachea Scalpels, each.....	1 50
1036.	" Bistouries, ".....	1 50
1037.	Tracheotomes, ".....	5 00
1038.	Trachea Trocar and Canula.....	4 00
1039.	Trousseau's Trachea Dilating Forceps.....	2 50
1040.	" " Cross-action ".....	3 00
1041.	" " " light.....	2 50
1042.	Trachea Retractors.....	1 50
1043.	" Spatula.....	1 50
1044.	" Canula, Bivalve.....	10 00
1045.	" Tubes, double, silver, latest style.....	8 00
1046.	" " " ".....	6 00
1047.	" " single.....	4 50
1048.	" " hard rubber.....	3 00
1049.	Belloc's Canula, improved.....	4 50
1050.	Nose Speculum, two blades.....	3 00
1051.	" " Dr. Roosa's Hard Rubber.....	2 50
1052.	" " Dr. Fraenkel's Improved.....	4 50
1053.	Nasal Polypus Forceps, curved, for extracting Polypus from Posterior Nares.....	3 00
1054.	Catarrhal Syringes, hard rubber.....	1 50
1055.	Thudichum's Nasal Douche, plain.....	1 50
1056.	" " " with stop-cock and hard rubber nose-piece.....	3 50
1057.	Kramer's Ear Syringe.....	1 00
1058.	Hard Rubber Ear Syringe.....	1 50
1059.	White Metal " ".....	75
1060.	Simrock's Rhinoscope.....	15 00
1061.	Soft Rubber Ear Syringe.....	2 00
1062.	Syringe, for injecting air.....	2 00
1063.	Van Wyck's Nose Speculum, with regulating screw.....	2 00
1064.	Ellsberg's Nose and Trachea Speculum.....	5 00
1065.	Sexton's Ear Douche.....	6 00
1066.	Camel's-Hair Brushes, per set, with handle.....	2 00
1067.	Dr. Roosa's Atomizer, with curved tube for the Posterior Nares	5 00

Chest Instruments.

1068.	Fine Silver-Plated Double Stethoscope, ivory mounted, with ex- tra single tubes, pleximeter and hammer, in mahogany case..	\$30 00
1069.	Fine Double Stethoscope, ivory-mounted.....	15 00
1070.	Camman's " in box or bag.....	6 00
1071.	" " plated.....	6 50
1072.	Bird's Stethoscope.....	4 00
1073.	Pocket Folding Stethoscope.....	3 00
1074.	Flexible Stethoscopes, per doz.....	12 00

Chest Instruments.*(Continued.)*

1075.	Allison's Stethoscopes, double.....	\$7 00
1076.	Plain Cedar " per doz.....	6 00
1077.	Ivory Mounted " " cedar.....	24 00
1078.	" " " " ebony.....	24 00
1079.	" Pleximeter" "	48 00
1080.	Ebony Stethoscope, with Pleximeter and Hammer combined...	45 00
1081.	Ivory Pleximeters, each.....	1 00
1082.	Flint's Hammer.....	1 25
1083.	Bennett's "	1 50
1084.	Rubber Pleximeter.....	50
1085.	Stethometer, for measuring the chest.....	5 00
1086.	Trocar and Canula, for Hydrothorax.....	6 00
1087.	Flint's Trocars and Paracentesis Thoracis.....	25 00
1088.	" " with stop-cock.....	6 00
1089.	Spirometer, for testing the capacity of the lungs.....	12 00 to 50 00
1090.	Lung and Chest Shields, flannel, lined with oiled silk...	1 00 to 4 50
1091.	Brown's Spirometer.....	12 00
1092.	Metal Nipple Shields, per doz.....	2 00
1093.	Chest and Lung Protectors, fine felt.....	1 00 to 2 00

Æsthesiometers and Diagnostic Instruments.

1094.	Hammond's Æsthesiometer.....	\$3 00
1095.	Carroll's "	4 00
1096.	Vance's Pocket "	5 00
1097.	Seguin's "	4 00
1098.	Cammann's Stethoscope.....	6 00, 6 50
1099.	Sphygmograph, Mercy's.....	75 00
1100.	Speir's Echoscope.....	10 00
1101.	Flint's Pleximeter.....	1 00, 75c., 50
1102.	" Percussor.....	1 25
1103.	Carroll's Stethometer.....	3 00
1104.	Dynamograph.....	75 00
1105.	Dynamometer.....	8 00
1105a.	Dr. Hammond's Cephalohæmometer, new.....	10 00

Hydrocele and Scrotum Instruments and Cases.

1106.	Hydrocele Cases.....	\$8 00 to \$15 00
1107.	Rubber Hydrocele Bag, with stop-cock.....	2 00, 3 00, 4 00
1108.	Brass " Syringe.....	2 50
1109.	Navy " "	3 00
1110.	Straight " Trocars, Silver Canulas, per doz.....	21 00
1111.	" Exploring " " " "	15 00
1112.	" Lancet-pointed Trocars, Thoracentesis,"	24 00
1113.	" Angular " " Paracentesis, "	21 00
1114.	" Flat " " "	24 00
1115.	" " Trocars, Dr. B. F. Bache's, "	24 00
1116.	Cock's Set of Trocars, with Probes.....	8 00

Hydrocele and Scrotum Instruments and Cases.

(Continued.)

1117.	Trocar, for Ascites.....	\$2 00
1118.	“ “ deep-seated Abscess.....	3 00
1119.	“ “ Paracentesis Thoracis, with rubber bag attached....	7 00
1120.	Curved Trocars, Silver Canulas.....	3 00
1121.	German Silver Trocars.....	1 50
1122.	Sayre's Varicocele Clamp.....	5 00
1123.	Hydrocele Needle, for iron wire.....	1 75
1124.	Pneumatic Aspirators, for remov'g pus from deep-seated abscesses	15 00
1125.	“ “ Dieulafoy's, small, upright.....	40 00
1126.	“ “ “ large, “	50 00
1127.	“ “ “ best, slanting.....	60 00
1128.	“ “ with J. W. Howe's Transfusion Attachm'ts	65 00

See special heading for "Aspirators," in Part III.

Rectum and Hemorrhoid Instruments.

1129.	Three-blade Speculum, Lane's	\$12 00
1130.	American Glass “ assorted, per doz.....	12 00
1131.	English “ “ “ “	24 00
1132.	White Metal “ each.....	2 00
1133.	Bauer's Dilators.....	10 00
1134.	Sponge-tent “ assorted, per doz.....	9 00
1135.	Rectum Bougies, English.....	12 00
1136.	“ “ “ conical.....	15 00
1137.	“ “ French.....	6 00
1138.	“ “ Metallic.....	9 00
1139.	Probe-point Bistoury.....	1 50
1140.	Canulated “	6 00
1141.	Gorget, for Fistula, Wood.....	2 00
1142.	Hard Rubber, Ivory, or Silver Needle Forceps.....	2 50
1143.	Double Pile Forceps.....	3 00
1144.	Dupuytren's Pile Scissors.....	3 00
1145.	Smith's Pile Clamp.....	5 00
1146.	Wire Ecraseur.....	5 00
1147.	Single Chain Ecraseur.....	18 00
1148.	Double “ “	22 50
1149.	Piercy's Pile Suppositor.....	3 00
1150.	Rectum Plugs, hard rubber.....	1 50
1151.	“ “ metal.....	1 50
1152.	Pile Supporters.....	5 00 to 15 00
1153.	“ Truss.....	5 00
1154.	Truss, for Prolapsus Ani.....	6 00
1155.	Long Director.....	2 00
1156.	Silver Probes, for Fistula, per pair.....	1 50
1157.	Pile Forceps, small.....	2 00
1158.	“ “ Ring points.....	2 50
1159.	Hemorrhoid Scissors.....	3 50
1160.	Van Buren's Rectum Speculum	5 00
1161.	Two-blade “ “	4 50
1162.	Carroll's Knoff Tier.....	2 50

Rectum and Hemorrhoid Instruments.

(Continued.)

1163.	Bivalve Speculum, steel, small.....	\$6 50
1164.	Trivalve " Trellis.....	16 00
1165.	Gibson's Ligature Instrument.....	3 50
1166.	Gorget-formed Speculum.....	3 00
1167.	Recto-Colonic Endoscope.....	7 50
1168.	Set Bodenhamer's Rectal Sounds.....	10 00
1169.	Hutchinson's Breech-loading Syringe.....	11 00
1170.	Improved Rectal Dilator.....	12 00
1171.	Nott's Rectilinear Clamp.....	13 00
1172.	Thebaud's Sphincter Ani Dilator.....	12 00
1173.	Bodenhamer's Curvilinear Forceps.....	5 00
1174.	Rectal Polypoid Torsion ".....	7 00
1175.	Spring Forceps, for seizing bleeding vessels.....	4 50
1176.	Double Spring Tenaculum, Byrne's.....	6 00
1177.	Bodenhamer's Bistoury Caché.....	10 00
1178.	Rectal Stricture Knife.....	7 00
1179.	Fissure Knives.....I 25, 2 50,	6 00
1180.	Rectal Porte Caustique.....	3 00
1181.	Curved Ecraseur, large.....	20 00
1182.	Hemorrhoidal Clamp, Amussat's.....	8 00
1183.	" " Smith's.....	6 00
1184.	Rectal Curette.....	2 00
1185.	Ebony Pile Pipes.....	2 00
1186.	Horn " ".....	2 00
1187.	Pile Ointment, per doz.....	6 00
1188.	Taylor's Curvilinear Forceps, for Hemorrhoids.....	10 00

Cupping, Stomach, and Injecting Cases and Apparatus.

1189.	Cupping Case, No. 1, with glasses mounted for stop-cocks....	\$10 00
1190.	" " " 2, " " ".....	8 00
1191.	Fine Reverse Twelve-blade Scarificators, per doz.....	60 00
1192.	" " Ten " " ".....	54 00
1193.	Plain " " ".....	48 00
1194.	Temple Four " " ".....	48 00
1195.	Fine Patent Twelve " Reverse ".....	78 00
1196.	Stop-cocks for Pumps and Glasses, ".....	6 00
1197.	All Rubber Cups, ".....	9 00
1198.	" " " with Glasses, ".....	9 00
1199.	Glass Cups for stop-cocks, ".....	7 50
1200.	" " plain, ".....	9 00
1201.	Plain Glass Cups, ".....	2 50
1202.	Tin Cups, ".....	2 50
1203.	Cupping Pumps, Brass, fine English, ".....	30 00
1204.	Stomach Pumps, No. 1, flute key in case, each.....	16 00
1205.	" " Fine Nickel-plated after Leiter, each....	18 00 20 00
1206.	" " U. S. Navy, ".....	12 00
1207.	" " Hard Rubber, each.....	10 00, 12 00, 14 00
1208.	" " Flint, with Trocars, each.....	25 00

Cupping, Stomach, and Injecting Cases and Apparatus.*(Continued.)*

1209.	Stomach Tubes, fine English, per doz., funnel end.....	\$24 00
1210.	“ “ “ French, “	12 00
1211.	O'Beirn's Rectum Tubes, long, per doz.....	18 00
1212.	French “ “ short, “	6 00
1213.	“ Vaginal “ “ “	6 00
1214.	Ivory “ “ “	6 00
1215.	Ear and Temple Cupping Apparatus.....	4 00

Dental Cases, Forceps, Etc.

1216.	Dental Pouch, No. 1.....	\$30 00
1217.	“ “ “ 2.....	36 00
1218.	“ “ “ 3.....	15 00
1219.	“ Extra fine Tooth Forceps, per doz.....	33 00
1220.	“ Plain “ “ “	18 00
1221.	“ 2d quality, per doz.....	24 00
1222.	Small Fine Child's Tooth Forceps, assorted.....	15 00
1223.	Tooth Elevators, assorted.....	12 00
1224.	“ Screws.....	12 00
1225.	Gum Lancets, common.....	50
1226.	“ “ shell.....	.75c., 1 00
1227.	“ “ fine spring.....	1 50

Veterinary Cases and Instruments.

1228.	Veterinary Pump.....	\$16 00 to \$25 00
1229.	“ Scalpels, two blades in handle.....	3 00
1230.	“ Bistouries, “ “ “	3 00
1231.	“ “ one “ “	2 00
1232.	“ Scalpels, “ “ “	2 00
1233.	Rowelling Needles.....	1 00
1234.	Frog's Rowelling Needles.....	1 50
1235.	Rowelling Needles in 3 Sections, Malleable.....	5 00
1236.	Suture “ per doz.....	1 50
1237.	Spring Lancets.....	2 50 to 3 00
1238.	Pricking Knife.....	4 00
1239.	Nicking “	4 00
1240.	Horse Rasps.....	3 00
1241.	“ “ Nickel-plated, with screw in centre.....	5 25
1242.	“ Bullet Forceps.....	2 50
1243.	“ Catheters.....	3 00
1244.	Mare “	1 50
1245.	Horse Syringes, White Metal, 24 oz.....	3 00
1246.	“ “ “ “ 36 “	4 00
1247.	“ “ “ “ 48 “	5 00
1248.	Brass Fleams, two and three blades, per doz.....	4 50 to 6 00
1249.	Horn “ “ “ “ “	12 00 to 15 00
1250.	“ “ Fine American, “	18 00 to 24 00

Veterinary Cases and Instruments.

(Continued.)

1251.	Drawing Knives, per doz.....	\$18 00
1252.	Thumb Lancets, "	12 00
1253.	" " " Fine.....	18 00
1254.	Tooth Forceps, "	60 00
1255.	" " " large.....	120 00
1256.	" Keys, Pilgrim's, each.....	12 00
1257.	" " " " latest.....	20 00
1258.	" Saws, "	5 00
1259.	Mouth Openers, "	12 00
1260.	Newing's Knives, "	2 00
1261.	Rowelling Scissors, "	3 00
1262.	Docking " "	3 00
1263.	Clipping " "	2 50
1264.	Balling Irons, "	2 50 to 5 00
1265.	Firing Irons, per set, in case.....	10 00
1266.	" "	1 50 to 5 00
1267.	Blood Sticks, each.....	50
1268.	Trachea Knives,"	2 50
1269.	" Tubes, plated, each.....	5 00
1270.	" " hard rubber, each.....	4 00
1271.	" " Liautard's.....	15 00
1272.	Canula and Trocar, long, plated, each.....	3 00
1273.	" " " silver, "	4 50
1274.	" " flat, German Silver, each.....	3 00
1275.	Steel Clamps, Articulated.....	6 00
1276.	" " Castrating.....	8 00
1277.	Cattle Probangs.....	8 00 to 10 00
1278.	Boxwood Gags.....	2 00
1279.	Embryotomy Knives, each.....	2 50
1280.	Foal Hooks, "	7 00
1281.	Seton Needles, in handles, Pilgrim's, each.....	5 00
1282.	Needle Holders, each.....	2 50
1283.	Suture Pins, per doz.....	50
1284.	Milking Tubes, each.....	5 00
1285.	Cow-Udder Scarifier, each.....	5 00
1286.	Long Probes, "	1 00
1287.	" " " to screw in centre.....	2 00
1288.	" " " whalebone.....	75
1289.	" " " lead.....	50
1290.	Suppository Syringes "	1 00
1291.	Subcutaneous, "	5 00, 7 50
1292.	Bandages, per doz.....	4 00
1293.	Metal Catheters, for mares, each.....	2 50
1294.	Balling Guns, each.....	6 00
1295.	Castrating Knives, per doz.....	12 00
1296.	" Clams, with rack, each.....	3 00
1297.	Hardwood Clyster Pipes, per doz.....	18 00
1298.	Gum Lancets, per doz.....	18 00
1299.	Tumor Syringes, each.....	12 00
1300.	Bull-dog Artery Forceps, each.....	3 00

Veterinary Cases and Instruments.

(Continued.)

1301.	Bullet Forceps, shifting blades, each.....	\$5 00
1302.	Woolen Bandages, per yard.....	50
1303.	Bow or Dressing Forceps, each.....	3 00
1304.	Nose Punches, each.....	8 00
1305.	Clams for Hernia, two in a set.....	4 00
1306.	Inoculating Lancets, Pilgrim's, each.....	1 00
1307.	Lactometers, for testing milk, ".....	1 00
1308.	Sheep Shears, ".....	2 00
1309.	Ophthalmoscopes, ".....	6 00
1310.	Nicking Pulleys, per set.....	6 00
1311.	Spavin Punches, each.....	2 00
1312.	Retort Stands, ".....	2 50
1313.	Pilgrim's Obstetric Forceps, each.....	10 00
1314.	Tissue, for dressing, per lb.....	4 00
1315.	Horse Eye Speculums.....	1 50
1316.	Veterinary Pin Carriers.....	2 50
1317.	" Dissecting Case.....	7 50
1318.	Liautard's Post-mortem.....	15 00
1319.	Forceps for removing Calculus from the Bladders of Mares....	10 00
1320.	Clinical Thermometers, each.....	6 00
1321.	Clipping Machines, ".....	10 00
1322.	" Scissors, ".....	1 50
1323.	Danish Vaccinators, ".....	4 00
1324.	Drenching Horns, ".....	1 50
1325.	Directors, ".....	1 00
1326.	Ecraseurs, complete, ".....	3 00
1327.	Scissors, " curved up.....	1 50
1328.	Torsion Forceps, ".....	3 50
1329.	Hernia Trusses, ".....	8 00
1330.	Hoof Cutters, ".....	2 50
1331.	Tumor Hooks, ".....	3 00
1332.	Horse Shoe Picks, ".....	1 00
1333.	Hydrothorax Trocars, ".....	4 50
1334.	Silver Suture Wire, per oz.....	6 00
1335.	Scarificators, per doz.....	72 00
1336.	Searing Irons, each.....	4 00
1337.	Seton Needles, per doz.....	12 00
1338.	" " " Pilgrim's.....	60 00
1339.	" " guarded, each.....	9 00
1340.	Quitter Syringe, ".....	1 00
1341.	Skinning Knives, in fixed handles, each.....	1 25
1342.	Sliding Tooth Chisels, Pilgrim's, ".....	12 00
1343.	Spaying Knives, Spring Backs, ".....	2 00
1344.	Student's Microscopes, ".....	30 00
1345.	Vaginal Specula, ".....	10 00, 25 00
1346.	Whalebone Sounds, ".....	2 00
1347.	Stethoscopes, ".....	2 00
1348.	Syringe for injecting Acetic Acid, complete, in case.....	10 00
1349.	Trephines for Hytadids in Sheep.....	4 50
1350.	" " " assorted.....	4 50

Veterinary Cases and Instruments.

(Continued.)

1351. Feeding Tubes, in case, for Tetanus.....	\$5 00
1352. Sage's Knives, Right, Left, and Double.....	1 50
1353. Liautard's Seton Needle.....	2 50
1354. Cases, complete, from.....	15 00 to 75 00

Electro-Magnetic Machines, Galvanic Batteries, Galvano- Faradic Machines, Galvanoscopes, Galvanome- ters, Rheotoms, Rheotrops, Rheostats, Electrodes, etc., etc.

1355. Rotary Magnetic Machines, small.....	\$10 00
1356. " " " English.....	11 00
1357. " " " double Magnet.....	17 00
1358. " " " large American.....	15 00
1359. " " " improved, working by clock-springs	35 00
1360. Electro-Magnetic Machine, small, Fig. A.....	10 00
1361. " " " " " B.....	12 50
1362. " " " with prim. and sec. currents, Fig. C	15 00
1363. " " " " " " " " and plain Electrodes and Cordspools.....	20 00
1364. " " " with divided scale and Carbon Elec- trodes, Fig. D.....	25 00
1365. " " " two Zell, Fig. E.....	30 00
1366. " " " " " with univerval handles and Electrodes, 2, 5, a and b, 7 and 8...	40 00
This instrument is generally preferred by physicians.	
1367. Galvanic Cells, each, Fig. F.....	3 00
1368. " " three in box.....	10 00
1369. " " four "	13 00
1370. " " eight "	25 00
1371. Carbon Plates for Cells, each.....	50
1372. Zinc " " "	50
1373. Glass Jars.....	50
1374. Insulated Pole Cords, per yard.....	15c., 20
1375. Spark Electro-Magnetic Machine, $\frac{1}{4}$ in. spark.....	50 00
1376. " " " " " " " with Ozone Gen- erator.....	75 00
1377. " " " " " " $\frac{1}{2}$ in. spark.....	75 00
1378. " " " " " " " with Ozone Gen- erator.....	125 00
1379. Faradic Rheostat, the only instrument which generates faradic currents of accurately measured strength.....	125 00
1380. Ten-Cell Galvanic Battery, for Aurists and Oculists.....	25 00
1381. Twenty Cell " " " " Fig. G....	36 00
1382. Spool Cords, universal handles and Electrodes	6 50
1383. Battery-filling Bottle, Fig. H.....	1 25
1384. Twenty-four Cell Battery, Fig. I.....	60 00

**Electro-Magnetic Machines, Galvanic Batteries, Galvano-
Faradic Machines, Galvanoscopes, Galvanome-
ters, Rheotoms, Rheotrops, Rheostats,
Electrodes, etc., etc.**

(Continued.)

1385.	Forty-Cell Battery.....	\$75 00
1386.	Cord Spools and Rheotrop.....	12 50
1387.	Livingston Cautery Battery, Fig. K, complete.....	200 00
1388.	Set of Galvano-Cautery Electrodes.....	50 00, 100 00
1389.	Standard Galvanic Battery, Fig. L.....	250 00
1390.	Byrne's Improved and Smallest Galvano-Cautery Battery, with a full set of operating Electrodes and Wire-loop, Fig. 1390..	125 00
1391.	The Galvano-Faradic Machine, Fig. M.....	150 00
1392.	Stöhrer's Sixteen-Cell Battery, continuous current.....	35 00
1393.	“ Thirty-two Cell “ “ “	60 00
1394.	Gaiffe's Pocket Battery, improved.....	15 00
1395.	Common Electrode, wood handle, with brass tube, pair.....	75
1396.	Universal Electrode-handle, } wood, pair.....	1 50
	} hard rubber, pair.....	3 00
1397.	Interrupting Handle, hard rubber, each.....	6 00
1398.	Rheodegos (current guide, Drescher's Patent), with universal handle and rubber-covered pole cords, with carbon points, complete.....	15 00
1399.	*Carbon Electrodes, sponge-covered, can be attached to univer- sal handle, No. 1, also to Nos. 2 and 4....	
1400.	* “ “ a, oval, 2 in. by 3 in. diam., each.....	2 00
1401.	* “ “ b, round, 1½ in. “ “	1 50
1402.	* “ “ c, “ 1 “ mounted in brass tube, each	1 50
1403.	* “ “ d, “ ½ “ “ “ “	1 50
1404.	*T-shaped Nerve Electrode (phrenic and sympathetic nerve), sponge-covered, a, 1 in. long, b, 2 in. long, each.....	2 50
1405.	*Nerve Electrode, sponge-covered, “	1 00
1406.	*Scourge or Brush, of fine metallic hair, “	1 00
1407.	*Clavus or Electrical Nail, “	1 00
1408.	Footplates, a, carbon plate, sponge-covered, with metallic frame and binding screw, each	5 00
1409.	“ b, zinc plate, sponge-covered, with binding screw, each	1 50
1410.	Hand Electrodes, a, metal tube, silver-plated, each.....	1 00
1411.	“ “ b, ball, “ “	1 50
1412.	*Rectal Electrode, insulated stem with olive, “	3 00
1413.	*Vaginal Electrode, with hard rubber extension, “	3 00
1414.	“ “ bi-polar, “	4 50
1415.	*Uterine Electrode (for the os), of hard rubber with metallic cavity.....	3 00
1416.	Catheter Electrodes, for urethral, intra-uterine, etc., applications, made of elastic catheters, with silver-plated olives, each.....	2 00
1417.	Set of fifteen catheters (different sizes), in case.....	25 00
1418.	*Glass Eye-cup Electrode.....	3 00

NOTE.—All the Electrodes marked thus * will fit to the universal handles, Nos. 2, 3, and 4.

**Electro-Magnetic Machines, Galvanic Batteries, Galvano-
Faradic Machines, Galvanoscopes, Galvanome-
ters, Rheotoms, Rheotrops, Rheostats,
Electrodes, etc., etc.**

(Continued.)

1419.	*a and b, Ulcer Electrode of fine silver plates, with curved stem, 1 in. and 2 in. diam.....	\$2 00,	\$2 50
1420.	*Ear Electrode, rubber speculum with platina strip.....		3 00
1421.	" " sponge-covered and hard rubber insulated.....		1 50
1422.	" " (Brenner's, for diagnosis).....		10 00
1423.	" " (Sexton's), each		2 50
1424.	" " set of six, with connecting screw, in case.....		10 00
1425.	Laryngeal Electrode, A, with interrupting handle B, made of hard rubber, unipolar electrode only.....		6 00
1426.	" " with unipolar and bi-polar electrode (with gold balls), in case.....		10 00
1427.	*Tongue Plate.....		1 50
1428.	Serres-fines, for three needles, with needles and binding screw..		6 00
1429.	" for six needles.....		10 00
1430.	Electrolysis Needles, steel, each.....		25
1431.	" " platina,"		2 00
1432.	Binding Screw, "		75
1433.	Spark Electrode (hard rubber).....		6 00
1434.	Electrolysis Bottles, with platina wires, three sizes, each.....		2 00
1435.	Galvanoscope, 3 in. diam., on stand, with binding-posts, (small size).....		10 00
1436.	" 5 in. diam., on stand, with binding-posts.....		25 00
1437.	Rheotom, with adjustable lever to regulate the duration and in- terval of the interruptions of the current.....		10 00
1438.	Automatic Rheotom (with clock-work).....		15 00
1439.	Rheotrop, vertical, with crank.....		10 00
1440.	" horizontal.....		15 00
	(This is the Rheotrop used with the galvanic batteries and galvano-faradic ma- chines, and is mounted on a separate board or box, and connected with the rheotom and galvanoscope.)		
1441.	Drescher's Automatic Rheotrop and Rheotom, with five or ten registers, to regulate the interval and duration of the inter- ruptions and reversions of the galvanic currents, in case,		36 00, 50 00
1442.	Rheostat of 1110 Ohm's Resistances, with three dials, indicating, respectively, the units, tens, and hundreds of Ohm's resist- ances, in case.....		50 00
1442 ^a .	Dr. A. McL. Hamilton's Double Electrode.....		8 00
1442 ^b .	" " " Galvano-Caustic Instrument.....		10 00

Chiropodists' Instruments.

1443.	Corn Knives, assorted shapes, per doz.....	\$12 00
1444.	" Scalpels, per doz.....	12 00
1445.	" Files, "	6 00

NOTE.—All the Electrodes marked thus * will fit to the universal handles, Nos. 2, 3, and 4.

Chiropodists' Instruments.*(Continued.)*


1446.	Nail Cutters, fine, each.....	\$2 50
1447.	Nail Cutters, plain, each.....	1 50
1448.	“ Scissors, “ curved.....	1 50
1449.	“ Extracting Forceps, each.....	2 50
1450.	“ Scissors, straight, “.....	1 50
1451.	Corn Extracting Forceps, with rings, each.....	1 50
1452.	“ “ “ “ “.....	1 00

**Orthopædic Instruments, Fracture Apparatus,
Crutches, etc.**

1453.	Sayre's Club-foot Shoes, each.....	\$10 00 to \$15 00
1454.	Bauer's “ “ “.....	10 00 to 15 00
1455.	Scarpa's “ “ “ improved.....	10 00 to 15 00
1456.	Bow-leg Apparatus, “.....	7 50
1457.	Sayre's Set Tenatomes, in case.....	4 50
1458.	Weak Ankle Instruments, each.....	6 00 to 10 00
1459.	Knock-knee “ “.....	35 00 to 60 00
1460.	Wood's Patella “ plain “.....	15 00 to 25 00
1461.	“ “ “ screw-joints, each.....	25 00 to 40 00
1462.	Sayre's Knee-joint Extension Instruments, each.....	15 00 to 25 00
1463.	“ Ankle “ “ “.....	15 00 to 25 00
1464.	“ Hip “ “ “.....	15 00 to 25 00
1465.	Taylor's “ “ “ “.....	25 00 to 50 00
1466.	Davis' “ “ “ “.....	25 00
1467.	Bauer's “ “ “ “.....	25 00 to 45 00
1468.	Spinal Curvature Instruments, fine, “.....	40 00
1469.	“ “ “ plain, “.....	25 00
1470.	Instruments for Pott's Disease, “ “.....	25 00 to 50 00
1471.	Taylor's Apparatus for Pott's Disease.....	30 00 to 50 00
1472.	Instruments for Wry-necks, plain, each.....	30 00 to 50 00
1473.	Wood's Extension Apparatus, “.....	10 00
1474.	Bauer's Bed and Extension Apparatus, for fixing the Pelvis, each.....	75 00
1475.	“ Wire Breeches, each.....	35 00 to 50 00
1476.	Day's Splints, per set.....	75 00
1477.	Jarvis' Adjuster.....	50 00
1478.	Double Inclined Plane.....	8 00
1479.	Long Splint for Extension and Counter-Extension.....	8 00
1480.	U. S. Navy Fracture Box.....	8 00
1481.	Plain “ “.....	3 00
1482.	Splints for Fracture of Patella.....	15 00 to 40 00
1483.	“ “ Tibia and Fibula.....	1 00 to 15 00
1484.	“ “ Femur.....	5 00
1485.	“ “ Arm and Forearm.....	1 50 to 5 00
1486.	Instrument for Fracture Clavicle.....	5 00
1487.	U. S. Navy Splints, per set, in case.....	35 00
1488.	Plain Coaptation Splints, per set of nine.....	2 00
1489.	U. S. Army “ “ “.....	5 00
1490.	Ahl's Porous Splints.....	35 00

Orthopædic Instruments, Fracture Apparatus, Crutches, etc.

(Continued.)

1491.	Splints, carved, per set.....	\$5 00
1492.	Sheet Iron Splints, for leg, each.....	4 50
1493.	Smith's Anterior Splint.....	5 00
1494.	Fine Malacca Crutches, per pair.....	15 00
1495.	“ Hickory “ “	10 00
1496.	Plain “ “ “	4 00
1497.	Stained “ “ “ German Silver Mounted.....	10 00
1498.	“ “ “ “ Brass “	5 00
1499.	Children's Crutches.....	3 00 to 12 00
1500.	Fine “ with velvet cushions.....	7 00
	 Crutches of any desired styles made to order.	
1501.	Russia Felt, for Splints, per square foot.....	1 50
1502.	Gutta-Percha, “ per lb.....	4 00
1503.	Respirators, each.....	1 50 to 5 00
1504.	Florida Inhalers, each.....	1 00
1505.	French Irrigators, “	7 00 to 13 00

For measurements required, see Part III.

Hypodermic Syringes.

1506.	Fine Glass, with solid gold points, latest improvement, for keep- ing piston good.....	\$10 00
1507.	Fine Glass, in plated metal barrel.....	5 00
1508.	Plain “ “ “ “	3 75
1509.	“ “ “ “ mounts.....	3 00
1510.	Fine Syringe, after Leiter, hard rubber.....	5 00
1511.	Pure Silver, with glass barrel and gold points	7 50
1512.	Plain Metal Case.....	1 50

Miscellaneous.

1513.	Portable Hot-Air Baths, each.....	\$6 00
1514.	Mercury or Sulphur Baths,“	3 00
1515.	German Student Lamps, small, each.....	6 00
1516.	“ “ “ large, “	7 50
1517.	Oil Stones or Hones, per doz.....	12 00
1518.	Tape Measures, 72 in. “	9 00
1519.	“ “ 36 in. “	6 00
1520.	Self-Blowing Lamps, each.....	5 00
1521.	Knives for cutting Gold Leaf, per doz.....	12 00
1522.	Hamilton's Bandage Shears, each.....	5 00
1523.	Seutin's “ “ “	5 00
1524.	Buck's Pin Carriers, “	2 00
1525.	Bandage Rollers, “	1 50
1526.	Actual Cautery Irons, various shapes, per doz.....	18 00
1527.	Hard Rubber Stop-cocks, “ “ “	12 00
1528.	Sponge Piline, per yard.....	7 00
1529.	Prepared Tow, for dressing	25

Miscellaneous.*(Continued.)*

1530.	Instruments for Caponing Fowls, per set.....	\$8 00
1531.	Cock Gaffs, each.....	2 50

Trusses, Abdominal Supporters, Shoulder Braces, Riding Belts, and Suspensory Bandages kept on hand in large varieties, of home and foreign manufacture. Especial attention given to the application of the same, and to Silk Stockings, etc.

Elastic Stockings, Knee Caps, etc.

1532.	Fine Silk Stockings, below knee, each....	\$5 00
1533.	“ “ “ “ “ “ extra heavy.....	6 00
1534.	“ “ “ above “ “ “ “	9 00
1535.	“ “ “ “ “ “ “	8 00
1536.	“ “ Thigh Stockings, “	12 00
1537.	“ “ “ “ extra heavy.....	15 00
1538.	“ “ Knee Caps, “ “	4 50
1539.	“ “ “ “ each.....	4 00
1540.	“ “ Anklets, “	4 00
1541.	“ “ “ “ heavy.....	4 50
1542.	Cotton Stockings, below knee, each.....	3 50
1543.	“ “ above “ “	6 00
1544.	“ “ thigh, “	8 00
1545.	“ Knee Caps, each.....	3 00
1546.	“ Anklets, “	3 00

☞ Silk or Cotton Leggings, Thigh Pieces, or Stockings of special dimensions made to order.

☞ Floss Silk, Registered Silk, and Linen Elastic Stockings on hand.

For measurements required, see Part III.

Medicine Chests, Buggy Chests, Saddle Bags, Vial Cases, etc.

1547.	Russet Leather Medicine Chest, No. 1—Contents: 45 stop bottles, 4 pots, 1 mortar, 2 walnut trays.....	\$22 00, \$24 00
1548.	Russet Leather Chest, No. 2—Contents: 35 stop bottles, 4 pots, 1 mortar, 2 trays.....	18 00, 20 00
1549.	Russet Leather Case, No. 3—Contents: 28 stop bottles and 4 pots.....	15 00, 17 50
1550.	“ “ Chest, “ 4—Contents: 20 bottles and 2 pots.....	11 00, 12 50
1551.	“ “ “ “ 5—Contents: 15 stop bottles	8 00, 10 00
1552.	Mahogany Wing Chest, No. 1.....	30 00
1553.	“ “ “ “ 2.....	25 00
1554.	“ “ “ “ 3.....	20 00
1555.	“ “ “ “ 4.....	17 00
1556.	“ “ “ “ 5.....	14 00
1557.	Small Medicine Chest, 8 bottles.....	4 50
1558.	“ “ “ 12 “	5 50

Medicine Chests, Buggy Chests, Saddle Bags, Vial Cases, etc.

(Continued.)

1559.	Saddle Bags, No. 1, flat, 24 bottles and 2 pockets, each.....	\$12 00
1560.	" " " 2, " 20 " " 2 " "	11 00
1561.	" " " 3, " 16 " " 2 " "	10 00
1562.	" " " 4, box pattern, 24 bottles, tray to lift, each....	13 00
1563.	" " " 5, " " 20 " " " "	12 00
1564.	" " " 6, " " 16 " " " "	11 00
1565.	" " " 7, drawer in the end, 24 bottles, each.....	13 00
1566.	" " " 8, " " " 20 " "	12 00
1567.	" " " 9, " " " 16 " "	11 00
1568.	" " " 10, box pattern, plain, for corks, "	7 50

Physicians' Vial Cases.

1569.	Contains 16 2-drachm Vials, Morocco strap, gilt.....	\$1 50
1570.	" 20 2 " " " " " "	1 75
1571.	" 4 2½ " " for the vest-pocket.....	75
1572.	" 30 ½ " " Turkey Morocco clasp.....	2 50
1573.	" 24 1 " " slide both ends, Morocco.....	1 75
1574.	" 9 2½ " " one row of vials, upright.....	1 50
1575.	" 18 2½ " " two rows " "	1 75
1576.	" 16 2 " " wooden frame, covered Morocco..	1 50
1577.	" 20 2 " " " " " " ..	1 75
1578.	" 16 1½ " " Sheepskin, sewed.....	1 25
1579.	" 20 2 " " " " " "	1 50
1580.	" 16 2 " " Russet leather strap.....	1 25
1581.	" 20 2 " " " " " "	1 50
1582.	" 16 1½ " " portmonnaie style.....	2 25
1583.	" 24 1½ " " four divisions, nicely gilt.....	3 25
1584.	" 16 1½ " " Morocco, sewed.....	1 50
1585.	" 18 2 " " " " " "	1 50
1586.	" 20 2 " " " " " "	1 75
1587.	" 20 4 " " Morocco, gilt strap.....	3 00
1588.	" 20 4 " " Sheepskin, sewed.....	3 00
1589.	" 18 1½ " " portmonnaie style.....	2 50
1590.	" 24 2 " " " " " "	4 50
1591.	" 12 4 " and 24 2-drachm vials, buggy cases, good Morocco, with handle.....	7 50
1592.	" 20 2 " Vials, book form.....	3 00
1593.	" 20 4 " " " " with two gilt clasps....	4 50
1594.	" 24 1½ " " with two gilt clasps, very fancy....	4 50
1595.	" 24 2 " " gilt numbers.....	3 00
1596.	" 12 2½ " and 8 6-drachm vials, best Turkey Morocco.....	4 00
1597.	" 20 2 " Vials, wrapper cases.....	2 25
1598.	" 12 2 " and 8 4-drachm vials, wrapper case....	2 50
1599.	" 10 2 " " 7 4 " " and 2 1-ounce glass stop bottles, upright case.....	3 50

Physicians' Vial Cases.

(Continued.)

1600.	Contains 8	3-drachm	Vials on one side, and two pockets for powders on the other side, of best Russia leather.....	\$3 50
1601.	"	16 3	" " of best Russia leather.....	4 00
1602.	"	6	½-ounce glass stop bottles, upright.....	2 50
1603.	"	20	2½-drachm Vials, box style.....	3 25
1604.	"	6 3	" " wrapper case, red.....	1 75
1605.	"	20 2	" " sewed, ".....	1 75
1606.	"	10 3	" " wrapper case, ".....	1 75
1607.	"	12 3	" " " ends covered.....	1 75
1608.	"	10 3	" and 14 1½-drachm vials, red.....	3 25

☞ Also, a great variety of Cases made to order, for Medicine, Paint, Oil, Varnish, and Liquor, at reasonable prices, and at short notice.

Spinal Ice and Hot Water Bags.

1609.	Improved Spinal Ice Bags, 10 inches long, each	}	.....	\$2 75
1610.	" " " " 12 " " "			
1611.	" " " " 14 " " "			
1612.	" " " " 16 " " "			
1613.	" " " " 18 " " "	}	.....	3 00
1614.	" " " " 20 " " "			
1615.	" " " " 22 " " "	}	.....	3 50
1616.	" " " " 24 " " "			
1617.	" " " " 26 " " "			
1618.	Spinal Hot Water Bags, consisting of two columns, 8 in., each			4 00
1619.	" " " " " " " 10 " "			4 50
1620.	" " " " " " " 12 " "			5 00
1621.	" " " " " " " 14 " "			5 50
1622.	Best Pure Gum Ice Bags, 12 x 12 in., with brass clamps, each..			4 00
1623.	" " " " " 6 x 12 " " " " " ..			3 50
1624.	" " " " " for Throat, 7 to 11 inches.....			1 50
1625.	" " " " Cap, for Head.....			3 00
1626.	White Rubber " "			3 50

Fever Thermometers and Urinometers.

1627.	Fine Casella's Thermometers, registered, patented, and warranted, with safety chamber, 4 and 6 inches, each.....	\$12 00
1628.	Fine Casella's Regular, 4 and 6 inches.....	7 50
1629.	Best English Thermometers, in boxwood cases.....	4 50
1630.	English " " metal "	5 00
1631.	" " " aluminium "	5 50
1632.	Hilliard's " " pencil cases, sliding.....	7 50
1633.	" " " " " propelling.....	8 50
1634.	" " " clinical, for hospital use.....	10 00
1635.	American " " with safety chamber, to make a new register.....	4 00

Fever Thermometers and Urinometers.

(Continued.)

1636.	American Thermometers, 4, 5, and 6 inches, regular, in hard rubber cases.....	\$3 00
1637.	“ “ 3½ and 3¾ inch. metal cases.....	3 50
1638.	“ “ non-registering, with ivory scale....	2 00
1639.	Urinometers, plain, American, each.....	75
1640.	“ “ English.....	75
1641.	“ fine “ with graduated test tube.....	2 00
1642.	“ standard American.....	1 50
1643.	Urinometer and Thermometer, in one case.....	3 00

Rubber Goods of every description for Surgical purposes.

1644.	Air Pillows, 9 × 13 inches.....	\$3 00
1645.	“ “ 10 × 16 “	4 00
1646.	“ “ 12 × 18 “	4 50
1647.	“ “ 14 × 23 “	6 50
1648.	Bath Tubs, oval.....	16 00
1649.	“ “ round.....	22 50
1650.	Bed Pans, white.....	6 00
1651.	“ “ black.....	6 50
1652.	Breast Pumps.....	1 75
1653.	“ “ Matson's.....	2 50
1654.	Carriage Cushions, 14 × 16 inches.....	11 00
1655.	“ “ 16 × 16 “	12 00
1656.	Chair Cushions.....	9 00
1657.	“ “ round, 15 inches diameter.....	5 50
1658.	“ “ “ 17 “	6 50
1659.	Hospital Chair Cushions.....	8 00
1660.	Invalid “ “ seat, 16 × 16 ; back, 16 × 16 inches.....	12 00
1661.	“ “ “ “ 18 × 18, “ 18 × 20 “	15 00
1662.	Square “ “ 12 × 16 inches	5 50
1663.	“ “ “ 14 × 16 “	6 00
1664.	“ “ “ 16 × 16 “	6 50
1665.	“ “ “ 15 × 18 “	7 00
1666.	“ “ “ centre reeded, 12 × 16 inches.....	5 25
1667.	“ “ “ “ “ 14 × 16 “	5 75
1668.	“ “ “ “ “ 16 × 16 “	6 25
1669.	“ “ “ “ “ 15 × 18 “	7 00
1670.	Cupping Cups.....	75
1671.	Barnes' Dilators, each, with stop-cock.....	1 25
1672.	“ “ three in set, with Syringe.....	5 00
1673.	Gas Bags, from ½ gallon to 10 gallons.....	2 00 to 10 00
1674.	“ “ square, “ “ “	12 00 to 25 00
1675.	Invalid Cushions, 9 inches, white or black.....	3 00
1676.	“ “ 12 “ “ “	3 50
1677.	“ “ 15 “ “ “	4 50
1678.	“ “ 18 “ “ “	5 50
1679.	Water Bags, 13 × 15 inches.....	5 50
1680.	“ “ 14 × 18 “	6 00

Rubber Goods of every description for Surgical purposes.*(Continued.)*

1681.	Water Bags, 17 × 19 inches.....	\$7 00
1682.	Water Bottles, with handles, linen, 1 quart.....	3 25
1683.	“ “ “ “ “ 2 quarts.....	3 50
1684.	“ “ “ “ “ 3 “	3 50
1685.	“ “ “ “ “ 4 “	3 75
1686.	“ “ “ “ flannel, each, extra.....	25
1687.	Syringes, all shapes and patterns.....	1 00 to 2 50
1688.	Water Beds, large and small.....	20 00 to 60 00
1689.	Rubber Tubing, all sizes and thicknesses, per foot.....	20c. to 1 00
1690.	Urinals, plain white rubber, No. 1, male.....	2 50
1691.	“ “ “ “ “ 2, “	3 00
1692.	“ “ “ “ “ 3, “	3 50
1693.	“ “ “ “ “ 4, female.....	3 50
1694.	“ fine “ “ “ 5, male.....	5 00
1695.	“ “ “ “ “ 6, female.....	5 00
1696.	“ “ “ “ “ 7, night and day.....	6 00
1697.	“ “ black “ “ 8, French, male.....	5 00
1698.	“ “ “ “ “ 9, “ female.....	5 00
1699.	“ “ “ “ “ 10, “ male.....	6 00
1699 ^a .	“ “ large, after Dr. Van Buren.....	10 00
1699 ^b .	English Bag, with stop-cock.....	3 50

Amputating and General Operating Instruments.

1700.	Dr. Esmarch's Elastic Tourniquet, for bloodless operations, comprising five yards of best English Rubber Shirring, two inches wide, and two pieces, each five feet long and one-quarter inch thick, rubber cord with safety chain fastenings, in box.....	\$6 00
1701.	The above with three feet Shirring and one piece rubber cord..	3 75

Pocket Cases and Pocket Case Instruments.

1702.	Dr. Helmuth's Compact Pocket Case.....	\$32 00
1703.	“ Fulcrum and Tenaculum combined.....	1 25
1704.	“ Uterine Sound, to screw together, fitting Pocket Case.....	2 00

Urethral Instruments.

1705.	Drs. Van Buren's & Keyes' New American Gauge, showing the relative size of other gauges.....	\$4 00
1706.	Civiale's Urethrotome, latest.....	12 00
1707.	Dr. Otis' Set of Bulbous Sounds, fourteen sizes, with two handles	9 00
1708.	“ New Urethrotome.....	35 00

Uterine Instruments and Cases.

1709. Dr. Peaslee's New Sliding Clamp.....	\$8 00
1710. Dr. Thomas's New Clamp.....	7 00
1711. Dr. Sims's New Uterine Elevator, modified to facilitate cleaning and manipulation.....	12 00
1712. Dr. Thomas's General Operating Case, for uterine surgery.....	225 00

Special List of Trusses, Supporters, etc.

	SINGLE.	DOUBLE.
1713. Fine English Gum-covered Trusses.....	\$5 00	\$10 00
1714. " French " " "	3 00	6 00
1715. " Radical Cure "	6 00	12 00
1716. " Self-Adjusting "	4 00	6 00
1717. " " " extra "	5 00	9 00
1718. " French Radical Cure "	4 50	
1719. " " Kid "	3 00	6 00
1720. " Phelps' " "	4 00	
1721. Plain French "	2 00	4 00
1722. " Self-Adjusting "	2 50	4 00

Please send the following measurements with an order: circumference around the body where the rupture is, and state what side is affected.

1723. Plain Spring Umbilical Trusses.....	\$4 00
1724. Dr. Peaslee's " "	7 50
1725. Pure Gum " Belts, for infants.....	2 00
1726. Linen Elastic " "	8 50
1727. Silk " " "	11 00
1728. Fine (English Calf) London Supporters.....	4 00
1729. Plain London Supporters.....	3 00
1730. Fine Silk Elastic "	10 00
1731. " Fitch's Spring "	6 00
1732. " Improved " "	6 00
1733. " Riding (Belts) "	5 00
1734. " Dark Linen Elastic Supporters.....	7 50
1735. Gents' Shoulder Braces, all elastic.....	2 00
1736. Ladies' " " "	2 00
1737. " " " improved.....	2 50
1738. Steel Back " " "	4 00
1739. Ladies' Skirt Supporters.....	4 00

In ordering Supporters, please send circumference of body at crest of ilium, also two inches above and two inches below the same.

For Shoulder Braces, circumference around the chest.

New Instruments, of American and European invention, will be added from time to time to this list; and being in constant communication with the instrument makers of London, Paris, Berlin, Vienna, Leipzig, etc., we are receiving, and can supply, all instruments of new designs or novel patterns.

PART II.,

CONTAINING

DESCRIPTION AND SPECIFICATION OF CONTENTS OF THE
INSTRUMENTS IN PART I., MENTIONED AS IN
CASES, SETS, POUCHES, ETC., ETC.

CONTENTS

OF

**General Operating, Amputating, and Minor Operating
Instruments, put up in sets, in Rosewood and Ma-
hogany Boxes or Cases, as recommended
by our most eminent American
Physicians and Surgeons.**

No. 1 contains

1 long amputating knife; 1 circular amputating knife; 1 catling; 1 metacarpal saw; 1 pair trephines; 2 scalpels; 1 blunt bistoury, curved; 1 sharp bistoury, curved; 1 tenaculum; 1 aneurism needle, plain; 1 trephining scalpel; 1 tourniquet; 2 steel sounds, Nos. 6 and 9; 2 catheters, Nos. 7 and 11; 2 English bougies; 1 director; 2 silver probes; 1 Beer's knife; 2 eye needles, 1 curved, 1 straight; 1 strabismus hook; 1 eye scissors; 1 eye forceps; 1 bone forceps; 1 saw; 1 pair scissors; 1 bullet forceps; 1 skull saw; 1 elevator; 1 trephine brush; 1 thumb forceps; needles; pins; silk; and silver wire.

No. 2 contains

the same as above, with the addition of 1 rongier; 1 gouge; 1 chisel; and ivory handles on the instruments.

Both in mahogany brass-bound cases, lined with velvet.

No. 3 contains

1 Liston's amputating knife, screw handle; 1 Liston's amputating knife, medium size; 1 small catling; 1 capital saw; 1 metacarpal saw; 1 German silver wire eye speculum; 1 Hey's skull saw; 1 trepanning elevator and raspator; 1 Galt's trephine and handle; 1 finger knife; 1 curved probe-pointed bistoury; 1 curved sharp-pointed bistoury; 1 Cooper's hernia knife; 3 scalpels, assorted; 1 cataract knife; 1 Parker's lachrymal needle; 1 exploring trocar; 1 director, steel; 1 pair probes, silver; 1 bullet forceps; 1 tenotome; 1 pair Parker's retractors; 12 needles; silk; silver wire; plastic pins; 1 small trocar, straight; 1 rectum trocar, curved; 1 pair thumb forceps; 1 pair polypus forceps; 1 steel sound; 2 lithotomy staffs; 1 lithotomy bistoury; 1 pair lithotomy forceps; 1 pair Liston's bone forceps; 1 pair eye scissors, curved on the flat; 2 silver catheters; 1 spiral tourniquet; 1 eye needle, curved; 1 set Parker's aneurism needles; 1 pair strabismus forceps; 1 pair artery forceps; 1 rosewood case, brass-bound, lined with silk velvet, patent leather cover, water-proof.

No. 4 contains

1 finger saw, narrow blade ; 1 bullet forceps ; 1 pair polypus forceps ; 1 steel director ; 1 elevator and raspator ; 1 lenticular knife ; 2 probes, silver ; 1 acupuncture needle ; 1 trepanning brush ; 1 bullet probe, lead ; 1 capital saw ; 1 pair dressing scissors ; 1 small hone ; 1 long amputating knife, handle to unscrew ; 1 pair Parker's retractors ; 1 Galt's trephine ; 1 pair Liston's bone forceps ; 1 pair artery forceps ; 2 serrephines ; 2 catheters, silver, Nos. 5 and 9 ; 1 bullet probe, whalebone ; 1 catling, long ; 1 catling, short ; 1 trephining scalpel ; 1 finger knife, sharp-pointed ; 1 curved bistoury, sharp-pointed ; 1 curved bistoury, probe-pointed ; 1 hernia knife ; 3 scalpels ; 1 tenotome ; 1 tenaculum ; 1 aneurism needle ; 1 tourniquet ; 12 needles ; silk ; pins ; wax ; rosewood case, lined with silk velvet ; 1 patent leather cover, water-proof.

No. 5 contains

1 long catling, for hip, 16 in. long ; 1 long catling, thigh, 13 in. long ; 1 Liston's knife, 13 in. long ; 1 broad French bistoury ; 1 narrow French bistoury ; 1 probe-pointed bistoury ; 1 pair Liston's bone forceps ; 1 capital saw ; 1 narrow metacarpal saw ; 1 tenaculum ; 1 pair slide-catch artery forceps ; 1 pair spring-catch artery forceps ; 1 pair scissors, straight ; 1 pair strong harelip scissors ; 1 pair dressing forceps ; 1 pair bullet forceps ; 1 pair U.S.A. bullet forceps ; 1 German silver or whalebone bullet probe ; 6 serrephines ; 12 needles ; silk ; wax ; pins ; 1 tourniquet ; 1 field tourniquet ; 1 long director and ear spoon ; 1 conical trephine ; 1 necrosis trephine ; 1 trepanning elevator, with raspatory ; 1 Hey's saw ; 1 tirefond ; 1 H. R. dental syringe ; 1 set aneurism needles ; 1 pair thumb forceps ; 1 pair retractors ; 1 pair specimen forceps ; 3 acupuncture needles ; 1 metal bougie ; 2 silver catheters ; 1 mahogany case, brass-bound ; 1 patent leather cover, water-proof.

No. 9 contains

1 long amputating knife ; 1 medium catling ; 1 short amputating knife ; 1 aneurism needle ; 3 scalpels ; 2 bistouries ; 1 tenaculum ; 1 trephining scalpel ; 1 tourniquet ; 1 conical trephine ; 1 pair straight scissors ; 1 thumb forceps ; 1 artery forceps ; 1 metacarpal saw ; 1 bone forceps ; 1 amputating saw ; 1 tenotomy knife ; needles ; silk, etc. ; in mahogany case, brass-bound.

No. 11 contains

1 long amputating knife ; 1 medium catling ; 1 short amputating knife ; 1 metacarpal saw ; 1 Galt's conical trephine ; 1 thumb forceps ; 1 artery forceps ; 1 amputating saw ; 1 tourniquet ; 1 bone forceps ; 1 trephining scalpel ; 1 brush ; 1 tenaculum ; needles ; silk, etc. ; 1 mahogany brass-bound case.

No. 12 contains

1 amputating saw ; 1 bone forceps ; 1 pair scissors ; 1 pair artery forceps ; 1 tourniquet ; 1 long amputating knife ; 1 catling, medium size ; 1 small amputating knife ; 1 metacarpal saw ; 1 cartilage knife ; 3 scalpels ; 1 tenaculum ; needles ; silk, etc. ; 1 brass-bound mahogany case.

No. 13 contains

1 amputating saw ; 1 Liston's bone forceps ; 1 spiral tourniquet ; 1 amputating knife ; 1 amputating knife, short ; 1 metacarpal saw ; 1 scalpel ; 1 tenaculum ; 1 thumb forceps ; needles ; silk, etc. ; 1 brass-bound mahogany case.

No. 32 contains

4 scalpels ; 1 sharp-pointed bistoury, curved ; 1 blunt-pointed bistoury, curved ; 1 Cooper's hernia bistoury ; 1 tenaculum ; 2 tenotomes ; 1 artery forceps ; 1 thumb forceps ; 1 director ; 1 pair silver probes ; 1 straight scissors ; 1 curved scissors ; 1 double volsella ; 1 set Mott's artery needles ; 1 pair Crampton's artery needles ; needles ; silk ; pins ; silver wire ; 1 sharp straight bistoury ; 1 blunt straight bistoury ; 1 scissors, curved on the flat ; rosewood brass-bound case.

No. 33 A contains

1 straight finger knife ; 1 curved probe-pointed bistoury ; 1 curved sharp-pointed bistoury ; 1 Cooper's hernia bistoury ; 3 scalpels, assorted ; 1 tenotome ; 1 aneurism needle ; 1 tenaculum ; 6 needles ; silk ; iron wire ; 1 pair straight scissors ; 1 pair dressing forceps ; 1 pair thumb forceps ; 1 steel director ; 1 male and female catheter ; 1 pair artery forceps ; 2 silver probes ; 1 caustic holder ; 1 rosewood case, ebony handles.

No. 33 B contains

4 scalpels ; 5 bistouries ; 1 tenotome ; 1 tenaculum ; 1 student's aneurism needle ; 1 director ; 1 pair silver probes ; 1 doz. needles ; silk ; silver wire ; pins ; 1 shifting-back saw ; 1 bone forceps ; 1 thumb forceps ; 1 artery forceps ; 1 Prout's needle forceps ; 1 polypus forceps ; 1 pair straight scissors ; 1 pair curved scissors ; 1 pair scissors, curved on the flat ; rosewood case.

No. 33 C contains

2 finger knives ; 2 straight probe-pointed bistouries ; 1 hernia bistoury ; 2 curved sharp-pointed bistouries ; 2 curved probe-pointed bistouries ; 1 abscess knife ; 1 short straight bistoury ; 4 tenotomes, various shapes ; 1 tenaculum, 1 pair needle forceps ; 1 pair Parker's retractors ; 18 assorted needles ; silk ; silver wire and pins ; 12 yards annealed iron wire ; iron wire ; 3 serrephines ; 7 scalpels assorted ; 1 Green's double hook ; 1 pair artery forceps ; 1 pair Coxeter's thumb forceps ; 1 pair strabismus forceps ; 1 pair bullet forceps ; 1 whalebone bullet probe ; 1 Nelaton's bullet probe ; 1 pair polypus forceps ; 1 pair vulcellum forceps ; 1 pair straight heavy scissors ; 1 pair scissors, curved on the flat ; 1 pair scissors, angular ; 1 trocar and canular ; 1 German silver ear speculum ; 1 Bellocq's sound ; 1 steel director ; rosewood case, brass-bound.

Contents of Pocket Cases.

In Pocket Cases we put either double spring backs or double slide fastening instruments, and where four double instruments are mentioned in one case, they comprise Scalpel and Tenotome, Tenaculum and Gum Lancet, two Curved Bistouries, Aneurism Needle and Exploring Needle. The cases are made either of genuine Morocco or Russia leather.

No. 85 contains

1 Gross' ear-spoon and curette ; 1 Wood's ear-scoop and elevator ; 1 spatula ; 1 abscess lancet ; 1 straight scissors ; 1 artery forceps ; 1 metacarpal saw ; 4 double instruments, spring backs ; 4 single instruments, spring backs ; 1 thermometer ; 1 thumb forceps ; 1 dressing forceps ; 1 Prout's needle for-

ceps; 1 angular scissors; 1 pair scissors, curved on the flat; 1 director; 1 pair silver probes; 1 Parker's catheter and caustic holder; 1 Nelaton's probe; 1 æsthesiometer; 1 doz. needles; silk; silver wire; Russia leather pocket case.

No. 87 contains

4 double instruments; 1 Parker's catheter and caustic holder; 1 thumb lancet; 1 pair straight scissors; 1 thumb forceps; 1 artery forceps; 1 Nelaton's probe; 1 probe; 6 needles; silk; silver wire; Russia leather pocket case.

No. 88 contains

4 double instruments; 1 thumb forceps; 1 artery forceps; 1 director; 1 pair probes; 1 pair scissors; needles; silk; silver wire; in Morocco case.

No. 89 contains,

in a genuine Morocco case, 4 double instruments; 1 Hamilton's artery forceps; 1 thumb forceps; 1 pair scissors; 1 Nelaton's probe; 1 catheter and caustic holder; needles; silk; silver wire.

No. 90 contains

the same as No. 89, except the catheter.

No. 91 contains

4 double spring-back instruments; 1 pair scissors; 1 combined catheter, silver; 1 pair silver probes; 1 spoon director; 1 dressing forceps; 1 lancet and scratcher; 1 miniature artery forceps; 1 artery forceps; needles; silk; silver wire; Russia leather case.

No. 92 contains

4 double spring-back instruments; 1 Parker's catheter and caustic holder; 1 pair scissors; 1 artery forceps; 1 pair probes; 1 spoon director; needles; silk; silver wire; pins; Russia leather case.

No. 93 contains

3 double spring-back instruments; 1 male and female catheter; 1 pair straight scissors; 1 thumb forceps; 1 exploring needle; 1 director; 1 pair probes; needles; silk; silver wire; Russia leather case.

No. 95 contains

4 double spring-back instruments; 1 Parker's catheter and caustic holder; 1 pair probes; 1 director; 1 pair scissors; 1 slide needle forceps; needles; silk; and silver wire; Russia leather case.

No. 99 contains

1 sharp curved bistoury; 1 blunt curved bistoury; 1 dressing forceps; 1 spatula; 1 tenaculum, fine shell handles; 1 gum lancet, fine shell handles; 1 pair curved scissors; 1 exploring needle; 1 double catheter, male and female; 1 thumb forceps; 1 thumb lancet; 1 pair straight scissors; 1 director; 1 pair probes; 1 caustic holder; 1 scalpel; 1 abscess lancet; needles; silk; in fine Morocco case.

No. 100 contains

2 bistouries, curved, sharp and blunt-pointed ; 1 dressing forceps ; 1 spatula ; 1 tenaculum ; 1 gum lancet ; 1 thumb lancet ; 1 pair straight scissors ; 1 exploring needle ; 1 thumb forceps ; 1 director ; 1 pair probes ; 1 female catheter ; 1 scalpel ; needles ; silk ; pins ; fine shell handles, Morocco case.

No. 101 contains

1 sharp curved bistoury ; 1 spatula ; 1 dressing forceps ; 1 straight scissors ; 1 tenaculum ; 1 gum lancet ; 1 scalpel ; 1 thumb forceps ; 1 director ; 1 pair probes, fine shell handles ; needles ; silk ; in a Morocco case.

No. 104 contains

the same as No. 99. Cutting instruments in plain rubber handles.

No. 105 contains

the same as No. 100. Cutting instruments in plain rubber handles.

No. 106 contains

the same as No. 101. Cutting instruments in plain rubber handles.

No. 110 contains

2 bistouries, sharp and probe-pointed ; 1 scalpel and tenotomy knife ; 1 artery forceps ; 1 exploring needle ; 1 thumb lancet ; 1 pair straight scissors ; 1 director ; 1 pair probes ; in Russia leather case ; needles ; silk ; silver wire.

No. 112.

The smallest case, $3\frac{1}{4} \times 2$ inches, contains, in a fine Russia leather case, with patent lock, 4 extra fine double spring-backs ; 1 thumb forceps ; 1 artery forceps ; 1 pair scissors ; probes ; director ; in three parts, to screw together ; needles ; silk ; silver wire.

No. 1702 contains

1 scalpel and tenotome ; 2 bistouries ; tenaculum and aneurism needle ; 1 pair scissors ; 1 thumb forceps ; 1 Prout's needle forceps ; 1 artery forceps ; 1 fulcrum ; 1 uterine sound, in two parts ; 1 exploring trocar ; 2 probes ; 1 director ; 1 fever thermometer, in metal case ; 1 combination catheter and caustic holder ; needles ; silk ; silver wire ; in Russia leather case.

Double spring-backs and double slide instruments comprise the following :

Scalpels ; tenotomes, sharp, blunt, straight, and curved ; bistouries, sharp, blunt, straight, and curved ; hernia knives ; Symes' abscess knives ; double-edge scalpels ; exploring needles ; aneurism needles ; gum lancets ; tenaculums ; and may be ordered in any combination, or any two in the same handle.

In addition to these cases mentioned, we keep a full assortment of other cases on hand, and can put up, to order, any case a physician or surgeon may require.

Obstetric Cases.**No. 196 contains**

1 Brickell's long forceps; 1 small forceps; 1 straight craniotomy forceps; 1 curved craniotomy forceps; 1 perforator; 1 vectus; 1 guarded blunt hook; 1 guarded crotchet; in leather pouch, all nickel-plated.

No. 197 contains

1 Elliot's forceps; 1 Thomas' short forceps; 1 cranioclast; 1 placenta forceps; 1 blunt hook; 1 crotchet; 1 Thomas' trephine; 1 pair scissors; 1 Negley's perforator; all nickel-plated, in fine sole-leather case.

Nos. 198 and 199 contain

1 Elliot's forceps; 1 craniotomy forceps; 1 Blot's perforator; 1 blunt hook and crotchet combined; 1 placenta forceps; 1 pair scissors; in a fine Morocco case with handles, or leather pouch.

No. 200 contains

the same as No. 197, with Thomas' cephalotribe added.

No. 201 contains

1 Bedford's forceps; 1 Bedford's perforator; 1 placenta forceps; 1 blunt hook and crotchet combined; in a leather pouch.

No. 202 contains

1 Taylor's forceps; 1 Smelleys' perforator; 1 craniotomy forceps; 1 placenta forceps; 1 blunt hook and crotchet combined; in leather pouch.

No. 203 contains

1 Hodge's forceps; 1 blunt hook and crotchet; 1 Bedford's perforator; in a leather pouch.

Uterine Cases and Sets for Vesico-Vaginal Fistula Operations.

No. 272 contains

1 Sims' speculum; 2 Ferguson's glass specula; 1 speculum forceps; 1 Peaslee's depressor; 1 uterine tenaculum; 1 Simpson's sound; 1 Peaslee's sound; 1 whalebone probe; 1 Emmet's applicator; 1 Peaslee's metrotome; 1 pair scissors, uterine curved; 1 uterine scarificator; 1 tube for extra-uterine application; 1 syringe, for injection; 1 catheter; 1 Peaslee's curved needle; 1 Emmet's needle; 1 pair needle forceps; in neat Morocco case.

No. 272a contains

2 pair scissors, angular, slightly curved, right and left; 2 pair scissors, angular, full curved, right and left; 1 pair scissors, curved up; 1 pair scissors, sharp and curved, for cutting wire; 1 pair wire twisting forceps; 1 pair dressing forceps; 1 Emmet's elevator; 1 Sims' needle forceps; 1 uterine bistoury; 1 uterine scalpel, small; 1 Emmet's tenaculum; 1 blunt hook; 1 shield (fulcrum); 1 wire carrier; 1 Sims' speculum; 1 Sim's depressor; 1 Emmet's probe; 1 Simpson's sound; 1 Perry's tenaculum; 1 doz. needles; 1 oz. silver wire, Nos. 27, 28, and 29; in fine Morocco pouch.

No. 273 contains

1 pair scissors, curved on the flat ; 1 pair scissors, straight ; 1 pair scissors, curved, for removing wire sutures ; 1 Sims' tenaculum ; 2 Sims' uterine scalpels ; 1 Sims' universal speculum ; 1 Sims' shield ; 1 Sims' wire carrier ; 1 Sims' blunt hook ; 1 Sims' dressing forceps ; 1 Sims' tissue forceps ; 1 Sims' wire twisting forceps ; 1 Sims' needle forceps ; $\frac{1}{2}$ doz. Sims' sponge holders ; needles ; silk ; silver wire ; in a Morocco pouch.

No. 1712 contains

1 Thomas' speculum, with fixed depressor ; 1 Casco's speculum, modified ; 1 Sim's speculum ; 1 Simpson's sound ; 1 Sims' sound ; 1 Emmet's probe ; 1 Thomas' whalebone probe ; 1 tenaculum uterine ; 1 forceps, with slide, mouse-tooth ; 1 pair scissors, full curved ; 1 uterine scalpel ; $\frac{1}{2}$ doz. sponge holders ; 1 Sims' needle forceps ; 1 blunt-pointed fork (wire carrier) ; 1 fulcrum or shield ; 1 blunt hook ; 1 pair wire twisting forceps ; 1 Sims' catheter ; 1 pair scissors, strong, slightly curved ; $\frac{1}{4}$ doz. cotton sticks, whalebone ; 1 syringe, with long pipe ; 1 tent applicator ; $\frac{1}{4}$ doz. Budd's probes ; 1 Lendt's probe ; 1 Lendt's cup for fusing nitrate of silver ; 1 Sims' curette ; 1 Lendt's ointment syringe ; 1 Buttle's scarifier ; 1 H. R. cylinder ; 1 Davidson's syringe ; 1 set cautery irons ; 1 Sims' tampon placer ; 1 uterine repositor, with steel rod ; 1 Sims' uterotome ; 1 Thomas' tissue forceps ; 1 pair double scissors ; 1 glove stretcher, for dividing tissues ; 1 H. R. plug, with spurs to prevent contraction of cervical canal ; 1 dilator H. R. extra-uterine ; 1 pair large curved scissors ; 1 Gouche's canula ; 1 ecraseur, plain wire ; 1 Simpson's polyprome ; 1 Sims' caustic holder ; 1 set uterine dilators ; 1 curette of copper wire ; 1 large trocar, with drainage tube ; 1 Dawson's clamp ; 1 Storer's clamp ; 1 pair large straight scissors ; 1 director ; needles ; silk ; wire ; in fine Morocco case, with handles and patent fastenings.

Urethral and Stricture Cases.

No. 469 contains

12 steel sounds, nickel-plated, Thompson's, short curve and conical, numbered after the French scale, a place for conical, olive, and acorn-pointed bougies ; 1 French catheter, scale with the corresponding English numbers ; 1 Thompson's searcher for stone ; 1 Syme's staff, for perineal section ; 1 small scalpel, for perineal section ; 2 silver catheters, male ; 1 prostatic catheter, Bumstead's ; 1 female catheter ; Bumstead's silver catheter, size No. 7, French, with filiform bougie conductors ; 1 urethral forceps ; 1 bistoury caché ; trocar and canula, for puncturing of the bladder ; 1 Bumstead's modification of Maissonneuve's urethrotome ; 6 filiform bougies, which will fit the catheter mentioned, and the urethrotome ; a set of 4 of Bumstead's urethrotomes, for strictures of large calibre ; come in handsome Morocco-covered case, with handles and patent fastenings.

No. 470 contains,

in a Morocco case, $\frac{1}{2}$ doz., 2 feet long, whalebone guides ; 1 Otis' catheter ; 1 Bumstead's catheter ; 4 tunneled sounds ; 1 Thompson's divulsor, tunneled ; 1 bistoury caché ; Civiale's urethrotome ; 1 Maissonneuve urethrotome, tunneled ; 1 grooved staff ; 1 Gouley's catheter staff ; 1 silver probe ; 1 small

scalpel; 1 probe-pointed small director; 1 curved trocar; 1 double silver tube; and a place to put the required gum-elastic goods into.

A set of Drs. Van Buren & Keyes' new conical steel sounds, with new American scale, is generally selected with this set.

No. 471 contains

3 tunneled conical sounds; 1 tunneled catheter; 4 conical steel sounds; 1 tunneled dilating urethrotome, Gouley's; 1 meatotome; 1 tunneled and grooved catheter staff, for external perineal urethrotomy; 1 small grooved probe; 1 probe-pointed tenotome; neat Morocco case, with spaces for soft rubber bougies, etc.

No. 529 contains

12 male catheters, from No. 1 to No. 12; and 1 female catheter, of pure virgin silver; in fine velvet-lined case.

No. 530 contains

the same as No. 529, only the catheters are made of heavy coin silver, and each has a skilet with German silver stopper.

Special Price-List for Silver Catheters.

Regular Male Catheters.

Nos.	Coin Silver.	Coin Silver, Extra heavy, with stillet and stopper.	Pure Virgin Silver, malleable.
1, each	\$1 25	\$1 75	
2, "	1 25	1 75	
3, "	1 25	2 00	
4, "	1 50	2 00	\$3 00
5, "	1 50	2 25	3 00
6, "	1 50	2 25	3 50
7, "	1 75	2 50	4 00
8, "	1 75	3 00	4 00
9, "	2 00	3 25	4 25
10, "	2 00	3 50	4 50
11, "	2 25	3 75	5 00
12, "	2 50	4 00	6 00

Prostatic Catheters.

Nos.	Coin Silver.	Coin Silver, Extra heavy, with stillet and stopper.
6	\$2 00	\$3 50
7 and 8	2 50	4 00
9	3 00	4 25
10	3 50	4 50
11 and 12	4 00	5 00

Exsecting and Necrosis Cases.

No. 571 contains

1 chain saw; 2 chisels; 2 gouges; 1 curved rongeur; 1 pair Liston's bone forceps, large; 1 set Brainard's bone drills; 1 bone trephine; 1 elevator and

raspatory ; 1 pair sequestrum forceps ; 1 pair retractors ; 3 coils silver wire ; 6 wire needles ; silk ; iron wire ; 1 pair bone forceps, angular ; 1 pair lion jaw-bone holding forceps ; 1 lead mallet ; 1 narrow metacarpal saw ; 1 Pope's antrum drill ; Mahogany case, brass-bound.

Post-mortem Cases.

No. 608 contains

12 scalpels ; 1 amputating knife ; 2 large knives ; 1 brain knife ; 2 large saws ; 1 Coxeter's forceps ; 1 long dissecting forceps ; 1 costotome ; 1 entrotome ; 1 broncotome ; 1 blow-pipe ; 2 pair scissors ; 2 long probes ; 1 hammer ; 1 chisel ; 1 hook, for removing skull ; 1 tape measure ; 1 tenaculum ; strong mahogany brass-bound box.

No. 609 contains

4 scalpels ; 1 tenaculum ; 1 cartilage knife ; (1 amputating knife ; 1 saw and 1 chisel, fit in one handle ;) 1 pair scissors ; 1 pair forceps ; 1 blow-pipe ; chain and hooks ; in a Mahogany case.

Eye Cases.

Eye Cases are put up in very large varieties, as recommended by Drs. Noyes, Agnew, Roosa, Knapp, etc., but as we mention nearly all the Eye Instruments used by either of them, a physician can easily make up his own case to suit his practice, and we only mention the contents of a few Eye Cases.

No. 836 contains

1 Beer's cataract knife ; 2 Graefe's ; 1 straight iridectomy knife ; 1 curved iridectomy knife ; 1 lid scarifying knife ; 1 Weber's knife, for the lachrymal duct ; 1 cataract knife ; 1 curved cornea knife ; 1 small scalpel ; 1 lachrymal director ; 1 knife, for lachrymal duct ; 1 pair probes, for lachrymal duct ; 1 cataract scoop ; 1 Graefe's scoop ; 2 strabismus hooks ; 1 Bowman's stop needle, curved ; 1 Bowman's stop needle, straight ; 1 Scarpa's needle ; 1 spear-pointed needle ; 1 broad needle ; 1 Hey's needle ; 1 spud ; 1 lens hook ; 1 Graefe's cystotome ; 1 pair iris scissors ; 1 pair scissors, straight ; 1 pair scissors, curved on the flat ; 1 pair scissors, angular ; 1 pair scissors, for splitting the canaliculas ; 1 Graefe's capsule forceps ; 1 Fisher's iris forceps ; 1 Liebreich's iris forceps ; 1 cilia forceps ; 1 fixation forceps ; 1 Graefe's iris forceps ; 1 Snellen's forceps, right and left ; 1 slide entropium forceps ; 1 Sand's needle forceps ; 1 ivory measure, for obliquity of strabismus ; 1 improved speculum ; 1 set Bowman's probes ; 1 Anel's probe ; ½ doz. small needles ; silver wire ; silk ; etc. ; in fine Rosewood case, lined with silk velvet.

No. 837 contains

1 Beer's cataract knife ; 2 Graefe's cataract knives ; 1 straight iridectomy knife ; 1 curved iridectomy knife ; 1 lid scarifying knife ; 1 Weber's knife, for the lachrymal duct ; 1 cornea knife ; 1 small scalpel ; 1 cataract scoop ; 2 strabismus hooks ; 1 Bowman's stop needle, straight ; 1 Bowman's stop needle, curved ; 1 Scarpa's needle ; 1 spear-pointed needle ; 1 Hey's needle ; 1 broad needle ; 1 spud ; 1 Graefe's cystotome ; 1 pair scissors, straight ; 1

pair scissors, curved on the flat ; 1 pair scissors, angular ; 1 Graefe's capsule forceps ; 1 cilia forceps ; 1 fixation forceps ; 1 Graefe's iris forceps ; 1 pair curved iris forceps ; 1 Desmarre's clamp ; 1 needle holder ; 1 lid elevator ; 1 improved speculum ; 1 set Bowman's probes ; $\frac{1}{2}$ doz. needles ; silver wire ; silk ; etc. ; in rosewood case.

No. 838 contains

1 Beer's cataract knife ; 1 Graefe's cataract knife ; 1 lid scarifying knife ; 1 small scalpel ; 1 Weber's knife, for the lachrymal duct ; 1 cataract scoop ; 1 strabismus hook ; 1 spud ; 1 Scarpa's needle ; 1 spear-pointed needle ; 1 pair straight scissors ; 1 pair scissors, curved on the flat ; 1 pair scissors, angular ; 1 pair cilia forceps ; 1 pair fixation forceps ; 1 pair iris forceps ; 1 lid elevator ; 1 improved speculum ; in fine Morocco case.

No. 839 contains

1 Graefe's cataract knife ; 1 Weber's knife, for the lachrymal duct ; 1 cataract scoop ; 1 Scarpa's needle ; 1 sharp-pointed needle ; 1 strabismus hook ; 1 spud ; 1 pair straight scissors ; 1 pair scissors, curved on the flat ; 1 pair scissors, angular ; 1 pair iris forceps ; 1 lid elevator ; 1 speculum ; in a neat Morocco case.

Ear Case.

No. 848 contains

1 mirror (3-inch) with head band and handle ; 1 set Gruber's tenotomes ; 1 set Gruber's ear speculum ; 1 Politzer's ear forceps ; 1 Wilde's snare ; 1 small syringe for injecting, with gold point for rupturing the tympanum ; 1 set hard rubber ear speculum ; 3 German silver eustachian catheters ; 3 hard rubber eustachian catheters ; in a neat Morocco case, lined with velvet.

Dental Cases.

No. 1216 contains

1 upper molar, right ; 1 upper molar, left ; 1 lower molar, right ; 1 lower molar, left ; 1 bicarpal forceps ; 1 wisdom forceps ; 1 straight root forceps ; 1 curved root forceps ; 1 hawk bill forceps ; 1 elevator ; 1 gum lancet ; 1 fine leather chamois lined pouch.

No. 1217 contains

the same as No. 1216, all the instruments nickel-plated, and 2 Child's forceps in addition.

No. 1218 contains

1 upper molar forceps, for right or left ; 1 lower molar forceps, for right or left ; 1 straight forceps ; 1 wisdom forceps ; 1 universal root forceps ; 1 elevator ; 1 gum lancet ; in a leather pouch.

The Cases mentioned here, in Part II., we will endeavor to keep constantly in stock, but should any physician or surgeon prefer to have any other case put up, after his own selection, we will gladly comply with his request, and have the order executed in the shortest time. Please always specify the kind of case wanted, Morocco-covered, black-walnut, rosewood, or mahogany.

PART III

THE INSTITUTIONS

AND STOCKS

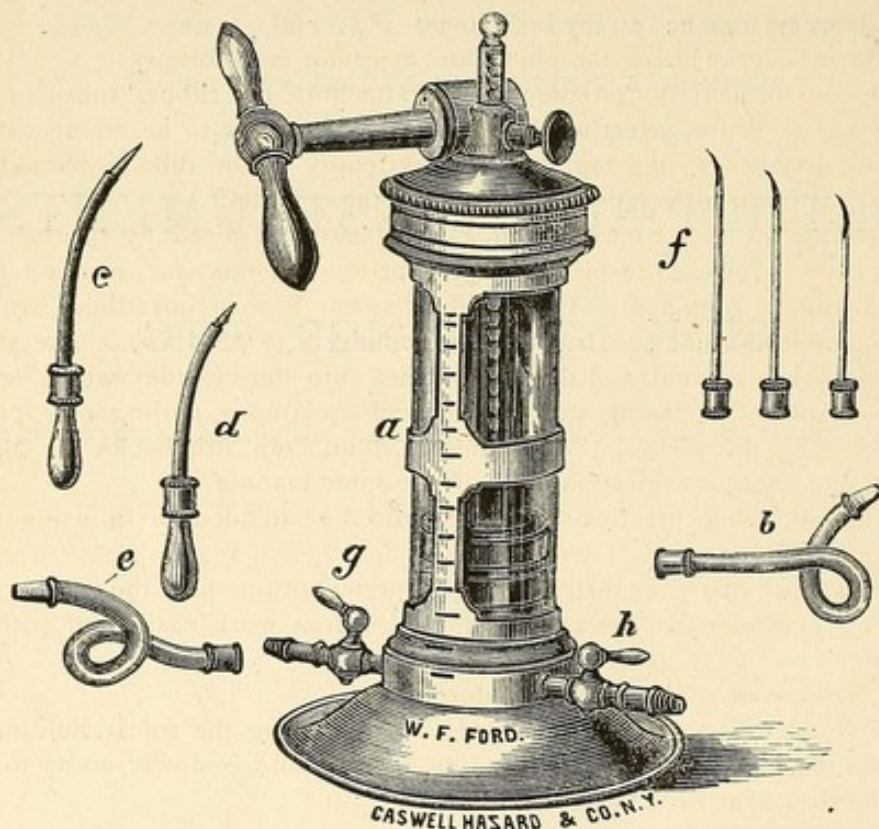
PART III.,
CONTAINING
ILLUSTRATIONS AND DESCRIPTIONS OF SOME OF THE LEADING
INSTRUMENTS MENTIONED IN PART I., ALSO MEAS-
UREMENTS WHICH ARE NECESSARY FOR US
TO HAVE TO FILL AN ORDER FOR
ORTHOPÆDIC INSTRUMENTS
AND
SILK STOCKINGS, ETC.

PNEUMATIC ASPIRATORS AND TRANSFUSION APPARATUS.

Dieulafoy's Aspirator.*

A DESCRIPTION OF THE INSTRUMENT BY JAMES L. LITTLE, M.D.

(*Extracted from the "New-York Medical Journal."*)



THIS instrument consists of a glass cylinder, *a*, about seven inches in height and two in diameter, with a tight-fitting piston. The cylinder is

* The invention of this instrument is credited to Dr. Dieulafoy, while the original idea and construction of the same apparatus was given by Dr. Moncot, Caen, France, in 1855, to Mr. L. Mathieu, Paris, in whose catalogue of 1864 a full description and drawing of the apparatus is given.

partly covered with a casing of German silver, nickel-plated. In front is a graduated scale, showing the amount of contained fluid in grammes—the gramme in this case being used as a measure of capacity and not of weight, each gramme being equal to the space occupied by a cubic centimetre of water, at the temperature of 39.2° Fahr. The cylinder holds one hundred and forty-five grammes, equal to nearly four fluid ounces. In the large one, six fluid ounces.

The piston is raised or lowered by turning the handle. Near the bottom of the cylinder are two taps with stop-cocks, *h* and *g*. To these are fitted two rubber tubes, as seen in the cut, *e* and *b*.

To the extremity of the one connected with *h*, a capillary trocar may be attached. About four inches from this end of the tube, which is four feet long, is inserted a piece of glass tubing about three inches in length, so as to allow the fluid to be seen passing to the cylinder. This is not shown in the woodcut.

The contents of the cylinder are discharged through the rubber tube attached to the tap, *g*.

The capillary tubes, or trocars, as they are called, are four in number, sharp-pointed and of different sizes, the smallest being about the calibre of the tube of the hypodermic syringe, or one-third of a millimetre in diameter, and the largest one and a half millimetre, and all of them four inches in length.

In addition to these tubes, there are two small, blunt canulas, with sharp trocars, and a detachable handle, so that when the trocar is withdrawn, the canula may be attached to the instrument.

The manner of using the pneumatic aspirator is as follows:

The instrument is first prepared by attaching the rubber tubes to the taps, *g* and *h*. After selecting the capillary trocar, it is to be connected to the tube attached to the tap, *h*. The extremity of the tube, *e*, should be placed in a basin to receive the contents of the cylinder.

Closing the stop-cocks, *g* and *h*, the piston is raised by turning the handle, and is retained in position by a spring. In this way, nearly a perfect vacuum is obtained. The capillary trocar is then introduced with a rotary motion into the part from which the fluid is to be drawn. The stop-cock, *h*, is then opened, and the fluid rushes into the cylinder, which, when full, is emptied by closing stop-cock *h* and opening *g*, pulling out spring and lowering the piston. When this is done, both stop-cocks are again closed, and another aspiration made in the same manner.

The following practical points should be attended to in using this instrument:

1. Be sure that your instrument is in perfect order—that the trocars and tubes are pervious, that the stop-cocks and piston work easily and without leakage.

2. Oil the needles or trocars before using.

3. Combine rotation with pressure in introducing the trocar, holding it between the index-finger and the thumb, and introduce slowly, so as to injure the tissues as little as possible.

Local anæsthesia may be used at the point of puncture if desired. A small nick in the integument, made with the scalpel, will facilitate the introduction of the trocar.

4. Remove the trocar slowly and keep up the aspiration during its removal. This prevents the escape of any of the fluid which may remain in the trocar. This is always to be borne in mind whenever the peritonæum is perforated.

5. After using, carefully wash out the instrument and tubes, and insert fine wire into the sharp-pointed trocar or canula before putting it away.

6. It is well occasionally to unscrew the top of the cylinder carefully, and pour in about half an ounce of sweet oil. This will keep the piston in good order.

Price of this instrument, in a fine black walnut case, velvet lined, with brass handle :

Large size.....	\$50 00
Small "	40 00
Large " slanting position.....	60 00

The instrument can be used for removing fluid from the pleural cavity, in cases of hydrothorax or empyema; from the cranial cavity, in cases of hydrocephalus; from the knee-joint, in cases of synovitis; for removing pus from abscesses; for removing gas and the fluid contents of the intestines, in cases of strangulated hernia, and thus allowing the gut to be reduced by taxis; also in diagnosing hydatids, and abscesses of the liver, and tumors of the abdomen; and for puncturing the bladder above the pubes, to relieve retention of urine caused by stricture, enlarged prostate, or injuries of the urethra, etc.

This instrument is also much used for

TRANSFUSION,

and in the following manner, by Prof. Joseph W. Howe :

A roller bandage two or three inches wide is placed around the arm above the bend of the elbow, and tightened sufficiently to obstruct the circulation through the veins, without interfering with the arterial current. When this is accomplished, a piece of wood or any other hard substance is firmly grasped by the hand, and the forearm flexed on the arm so as to increase the distension in the superficial veins. Close stop-cocks *h* and *g*.

The piston of the aspirator is now raised by turning the handle toward the right, and is retained in its position by a spring on the top.

The curved needle, *f*, connected with tube *b*, which has been attached to *h*, is now inserted in the median basilic vein from above downward, the stop-cock *h* turned, and the blood allowed to fill the cylinder *a*.

Compressing the rubber tube occasionally with the thumb and fore-finger, will prevent the vein from collapsing.

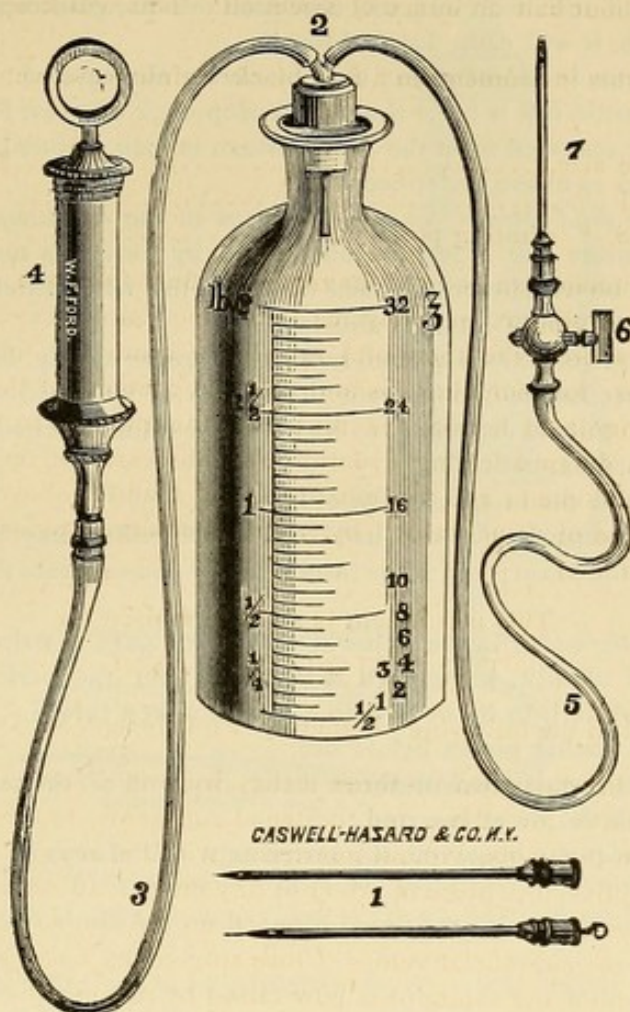
A vein in the patient's arm having been exposed, one of the trocars, *c* or *d*, is introduced and secured in the usual way; the trocar should remain in the canula until the blood is ready for injection. A small quantity of blood is now forced from the aspirator (by turning the handle toward the left, after the little spring is removed) through the tube *e* (which is of a larger calibre than *b*), to remove the air. The trocar is now withdrawn and the canula attached to the cone of tube *e* and the blood injected.

During the operation, the aspirator is placed in a basin of warm water.

Price, with all attachments, large size.....	\$65 00
" " " small "	50 00

A New Aspirator.

BY DR. POTAIN, PARIS.



THIS instrument, of simple construction, is reliable in action, and its low price places it within reach of every physician.

Price, with two tubes and one trocar, bottle not graduated.....\$15 00
 The same, with graduated bottle..... 16 00
 Both come in a nice velvet-lined box.

The manner of using the instrument:

1. Select the capillary tube or trocar, see that it is pervious, and attach it to the stop-cock (6).
2. Moisten the valves in the pump, and the same will work better.
3. Close the bottle tightly with the stopper (2); screw the *air pump* well home to its fitting (3), and shut the stop-cock (6).
4. A vacuum is now formed in the glass bottle by giving from thirty to fifty strokes of the air pump, and the instrument is ready for use.
5. Local anæsthesia may be used at the point of puncture, and a small nick made in the integument with a scalpel, to facilitate the introduction of the trocar.
6. The trocar should be oiled and *introduced slowly*, combining rotation

with pressure, so as to injure the tissues as little as possible ; and when *in situ*,

7. The stop-cock (6) is opened.

The fluid, if thin and clear, will now rush into the glass bottle quite fast ; if it is thickish, it will drop down slower.

The flow can be stopped at any time by closing the stop-cock. If more than one quart or bottle full is to be drawn, the stop-cock (6) must first be closed, the stopper (2) removed from the bottle, which is then emptied, and the operation repeated as above described.

Should the fluid cease to run, a few strokes of the *air pump* will make it flow again, unless the trocar be obstructed by fibrinous matter. In this event, it must be withdrawn, cleaned out with the wire stillet, and reintroduced, or, better, one of a larger size instead.

When the operation is completed, remove the trocar slowly, *keep up the aspiration during its removal,* to prevent the escape of any fluid which may remain therein. This is especially to be borne in mind whenever the peritonæum is perforated.

How to keep the instrument in order :

1. If the instrument is not used often, the *valves* may become sticky and adhere to the brass ; run a fine needle under and separate them carefully ; or,

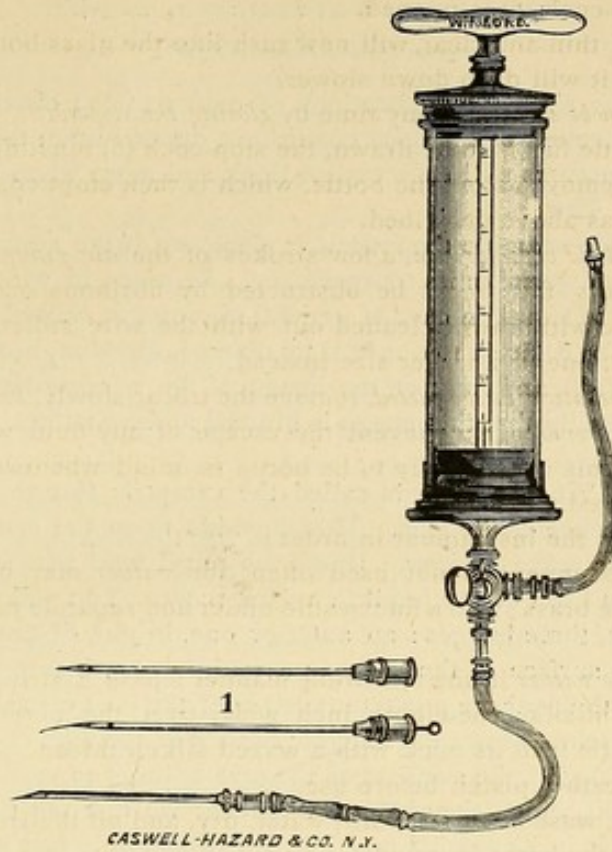
2. *Renew the valves* in the following manner : pass a strip of our valve material or of oil-silk, one-eighth inch wide, over the perforation in the valve-cone, and tie it to its neck with a waxed silken thread.

3. Oil the leather piston before use.

4. *After use,* wash out with warm water, dry, and oil the trocars and put them away with the wires inserted.

If these rules are observed, the instrument will always be in order.

Dieulafoy's Small Aspirator.



It has a glass cylinder, over which, for protection, a metal covering is placed: the latter is open on both sides so the graduations on the piston-rod can be seen.

The plated tubes are to be adjusted on the conic fitting of the rubber tube, and the other end of the latter on one of the cones of the stop-cock.

Aspiration (after insertion of one of the tubes) is made by closing the stop-cock and drawing the piston back; the latter will retain its position at the upper part of the cylinder by giving it half a turn.

The stop-cock is then opened and the fluid will enter the cylinder; when the latter is filled, it can be emptied by turning the handle of the stop-cock parallel with the other cone of the stop-cock, on which the waste-pipe is attached, and pushing the piston forward.

The instrument can be used also for injection, by reversing the *modus operandi*.

Price, small, with three tubes.....	\$15 00
“ large, “ six “	25 00

Both come in fine Morocco cases.

We also make these aspirators with two stop-cocks instead of one, that work two ways, and they are used in the same way as the above, only close and open the alternate stop-cocks.

Price, same as above.

These aspirators can be used for transfusion also.

AVELING'S TRANSFUSION APPARATUS....\$5 00

On the Use of the Ophthalmoscope.

BY JONATHAN HUTCHINSON, ESQ.,

Surgeon to the London Hospital.

SOME of the simplest applications of optics to the observation of the eye, and the detection of diseased conditions, depend upon the fact that the transparent structures still reflect some light, and more when diseased than when healthy. Thus :

FIRSTLY. We examine the reflecting efficiency of the surface of the cornea, in order to determine its transparency. In cases in which there is no large opacity, but simply a case of general steaminess caused by an uneven surface, it may be difficult to detect it by direct inspection, but if we expose the eye to the light, and look at the image of the window-frame produced, we shall see directly that this image is blurred and indistinct, like that from a greasy mirror.

SECONDLY. We use what is called the catoptric test to determine the presence or absence of the lens. This depends upon the fact that the surfaces of the lens reflect images. Dilate the pupil well with atropia. Hold a small taper in front of the pupil in a dark room. You will observe, if the lens be present, three images : an anterior one, bright, distinct, and erect—from the front surface of the cornea ; a middle one, inverted, small, fairly distinct—from the concave posterior surface of the lens capsule ; a posterior one, erect, indistinct—from the anterior surface of the lens capsule.

THIRDLY. Again, the surfaces of the crystalline lens easily become visible, by the light which they reflect, whenever we can see them obliquely. When the lens is in its normal position, it is difficult, unless by oblique illumination, to see its surface ; but if it is malplacéd, as we sometimes find it, by congenital imperfection, or from injuries, then its surfaces, being oblique, become easily visible. Any one not aware of this fact would at once declare that the malplacéd lens was also slightly opaque, and erroneous observations to that effect are to be found in some records of such cases.

In former days, the catoptric test used to be much employed to determine the transparency, or otherwise, of the crystalline lens. Now, however, it has been wholly superseded by another discovery, which in its every-day usefulness is second only to that of the ophthalmoscope itself. I allude to oblique illumination. To accomplish this is the easiest matter possible, and by its aid any one of the slightest skill can, in almost all cases, determine at a glance the condition of the patient's pupil and of his crystalline lens. The smallest dots of pigment on the capsule, the least possible streaks of an incipient cataract, become by its aid conspicuously definite. We have no longer any need for the curious, but very disappointing, catoptric test (which fails us just when most needed, *i.e.*, in slight cases) ; for the discovery of cataract, in any stage whatever, is now perfectly easy. For oblique illumination, you need only a candle and a convex lens, say a two-inch. The pupil should be dilated with atropia, and the candle having been placed to one side the patient's head, the lens is held so as to receive its light, and concentrate it to a pencil, which is thrown upon the patient's eye. All the superficial parts, *i.e.*, the cornea, the iris, the pupil, and the lens, may thus be brilliantly lighted up. In addition to the illumination, we may also, with another lens, employ magnifying power, and thus inspect the state of things yet more accurately.

Oblique illumination is applicable to all morbid conditions of the cornea, iris, or lens, and to blood-clots in the anterior part of the vitreous or

new growths which bulge forward into the anterior half of the globe. You can not, however, by its aid, see the fundus of the eye. To do this we must employ another instrument. Here let us ask the important question, Why is an ophthalmoscope necessary? Why can we not, by simply looking into the little round box, one inch deep, which constitutes an eyeball, see what is at its bottom? The answer is that the eyeball is not simply a box, it is an optical instrument, and it is from its lens apparatus that the difficulty comes. The rays of light received by the eye are brought to a focus in the retina; back again from the retina they are reflected, and pass out of the eye, destined to depict somewhere an image of the retina itself. The lens apparatus, however, not only brings the rays passing in to a certain and definite focus on the retina, but it acts on those which pass back, and brings these also to a focus at a certain and definite place. There is no difficulty whatever in illuminating the fundus, any light held in front of the eye will do that, nor have the structures of the fundus any difficulty in reflecting light by which they themselves ought in turn to become visible. The difficulty is in bringing the eye of the observer into the line of the reflected rays; this, without artificial aid, is impossible, and hence the necessity for the ophthalmoscope.

I have said that every lens has a principal focus or spot at which parallel rays which impinge upon it are made to meet by the convergence induced. Now, suppose that from this focus the rays are reflected back again, they must pass through the lens in the reverse direction, and will again become parallel. If, however, divergent rays be used, they will in returning be converged and made to meet at another focus in front of it. Inasmuch as the rays were at first not parallel but divergent, the focus at which, after passing through the lens, they meet, will not be at the same distance as that for parallel rays, but at a greater one. The distance will always be in exact proportion to the degree of divergence, and thus the two foci will always bear mutual relations to each other. If one be brought nearer to the lens, the other will be further off, and *vice versa*. Let us call them from this fact, that they maintain mutual relation, "*conjugate foci*." You may observe, if you like, that although conjugate, they keep each other at a distance. It is absolutely necessary that you should observe that all the rays of light passing out from the eye take a direction toward this conjugate focus, and that thus an observer who would make use of them to see the fundus must bring his eye into their line. This line, however, is the same that the rays took in passing into the eye, and if you try to intercept those coming out, you will intercept those going in, and cut off the source of illumination.

Thus, if we hold a candle two feet in front of the observed eye, its rays, divergent, will be refracted in entering the eye, and will depict an image on the retina—they will then be reflected and again refracted in such a manner that an image of the fundus will be found at the position of the candle-flame, that being the position of the conjugate focus. If the observer puts his head in the direction of these rays between the candle and the observed eye, of course he stops the rays which should have entered from the candle, he illuminates only the outside of his own head, and the eye of his patient is left in shadow. If he tries to see by looking from beyond the candle, then the flame of the latter intercepts his view and dazzles his eye. What is wanted is some contrivance to enable the observer to bring his head into his own light. Now the mirror of the ophthalmoscope does this, a reflecting surface with a small hole in the middle, it practically makes the observer's eye the source of illumination, and brings it into the direction which the rays of light returning to their conjugate focus must take. Foreshadowed by Cum-

ming, invented by Helmholtz, improved by Coccius, Reute, Liebreich, and many others, this little instrument, which has worked such a revolution in ophthalmic science, is thus simple in its essential principle.

The ophthalmoscope as in daily use consists of two parts, a mirror and an object lens, and to these is often added an eye-piece as well. The mirror, however, is the essential, the other parts are accessories intended for different special purposes. Without troubling you with details respecting the various modifications of the instrument, I will now describe the use of the simplest of them—a reflecting mirror slightly concave, and with a perforation in its centre.

Having placed the patient's head in such a manner that the light (a lamp, candle, or gas-light) is on a level with his temple, and slightly behind it, and his face, as a consequence, in shadow, the observer sits in front and applies the ophthalmoscope mirror to his own eye. He should keep both eyes open that he may see where the light falls, and then move the mirror until the light falls full on the pupil of his patient. In a moment he will perceive the first fact which this instrument reveals, that the fundus is not black, as it has always appeared to be before, but that it is of a brilliant fire-red. He will, however, see nothing of the fundus distinctly, only a general red reflex. Now at this point the student must stop awhile and use his mirror, to inspect, first, the transparency of the cornea, and, next, that of the lens and vitreous, and to do this he must make the patient move his eye in various directions. After a little practice he will be able to manage his light well, and to throw it with precision wherever he may wish, and to keep it steadily on any given part. At a first lesson he may even, with advantage, practice for a while by illuminating the second button of the patient's waist-coat. Tact in directing the light having been obtained, we may now proceed further. Instruct the patient to look, not full in your face, but over one shoulder; if you are inspecting his *right* eye, over your *left* shoulder. You will, when he does this, notice at once that the tint of the light reflected from his fundus is changed, that it is no longer fire-red, but canary-yellow. The reason of this is that a different part of the fundus is exposed to view, that, namely, of the optic disc itself, which is much lighter in color than the rest. The area of yellow is very large—occupies, indeed, the whole of the field, while we know that the disc itself is very small. This proves that the objects thus indistinctly seen are immensely magnified. Magnified by what? By the patient's own eye, which, as we have said, is equivalent to a lens of one-inch focus.

Hitherto we have seen nothing distinctly, but if the observer now brings his head very close to his patient's face, he will be able with more or less facility to observe the details at the bottom of the eye, the trunks of vessels of the retina, the optic disc, etc., etc. All these will be seen very large indeed, being still magnified by the patient's eye. What he sees now is equivalent to type looked at through a one-inch lens, placed exactly one inch in front of it.

[It is plain, then, that we can not see the fundus of the eye without optical aid. Of such aid, we have our choice of the inverted and of the erect. Both are seen much magnified, the latter much more so than the former. For ordinary purposes, the inverted image is used. It is seen very easily, and it brings a large field into view at once, so rendering the observer much less liable to inconvenience from slight motions of the patient's head. The examination of the erect image is chiefly useful for the inspection of detail, and even for these it requires great practice.]

Next, I will attempt a few suggestions by which beginners, and those who use the instrument but seldom, may best hope to avoid mistakes.

1. Always indulge yourself in the use of atropine, and by its aid both enlarge the patient's pupil and paralyze his accommodation. Experts can manage without, and may sometimes smile at those who are obliged to use it, but the increased facility which it gives is such that no beginner should neglect it. The objection that it causes the patient inconvenience is a very trivial one. What the patient wants before all things is, that a correct opinion should be formed, and to this end he is quite prepared to make a little sacrifice of convenience. For want of the use of atropine, I think I have known even experts overlook things which would have been apparent at a glance had it been used.

2. Always proceed on system. Examine the eye first without the object-lens, and ascertain the state of the cornea, lens, and vitreous. No mistake is easier to make, or more frequently made, than by the immediate employment of the inverted image to overlook the fact that the media are not perfectly transparent. With strong illumination, you can look right through a slight opacity in the cornea, lens, or vitreous, and observe only that the retina and choroid are seen indistinctly. Many a diagnosis of "hazy retina" ought to have been "opaque vitreous." It is like criticising the beauty of a prospect, and declaring that it looks dull, when you have forgotten to observe that the window wanted cleaning. If you have any doubt as to the state of the cornea or lens, examine them by oblique illumination before going further. Many opacities in the cornea are so slight that you overlook them on naked-eye inspection, and also with the ophthalmoscope mirror, but find them directly by oblique illumination. Need I add that you must be very particular that your object-lens, when you use it, is quite clean. Any stains on it will be seen as if on the patient's retina.

3. Having completed your examination of the media, still proceed on system. The next duty is to estimate the length of the eyeball. A patient may come complaining that he is rapidly losing his sight, and you may find that it really has become so defective that he can not read the largest ordinary print. You hastily assume that he must have some disease of the deep parts, some form of amaurosis. You proceed to ophthalmoscopic examination, and again hastily employ both mirror and object-lens, and it is quite possible that you may overlook altogether the fact that the eyeball is much too short and the patient hypermetropic. In high degrees of hypermetropia, if sudden failure of accommodation happen to occur, the defect in sight may often be so great as to draw the attention quite away from the right scent. I have already described the method by which we ascertain whether an eye is abnormal as to length. For the benefit of the mere novice, I may, however, here add, that whenever, without the object-lens, any of the details of the fundus—vessels, disc, patches, etc.—are easily seen, he may be quite sure that the globe is either too long or too short, or that the lens is wanting. If these objects are seen very easily, and the image very bright and beautiful, then in all probability it is an inverted image, and the eye is myopic. If only large trunks of vessels have been seen, and these not easily kept in view, then probably it is the erect image, and the eye hypermetropic.

4. Still proceed on system. Having ascertained that the media are clear, and that the eyeball does not materially deviate from its normal length in either direction, you may now examine in succession the optic disc and its vessels, the retina, and choroid near to it, the yellow spot, and, lastly, the outlying districts. I must mention each of these separately.

5. The Optic Disc. Note its shape, its margins, whether definite or otherwise, its color, and its level. Observe whether the vessels upon it are seen sharply or not, and look particularly as to how they conduct themselves at its margin. Distinguish between artery and vein, and note the size of each. It is a common mistake with young observers to pay attention to the vein only. In the healthy state the disc should be round, and its choroidal rim distinct and sharp; the vessels on its surface should be seen with beautiful clearness, and the difference between vein and artery, as to size and color, should be readily distinguished. In the centre, or near it, and close to where the trunks of the vessels dip back, there will be seen a bright white patch. This white patch may be large and very conspicuous in some eyes, and small in others, whilst still the eye is not in the least diseased. As regards the vessels, you must distinguish between the large branches of those destined to supply the retina, and the minute ones which give a general pink tint to the nerve itself. The latter may be much diminished, whilst the former retain their size.

Amongst the more common peculiarities displayed by the disc in a state of disease, we have—

1st. The formation of crescents by its side, or of irregular circles around it in myopia.

2d. A jagged condition of the choroidal rim, indicating either the commencement of crescents or the previous occurrence of inflammation (neuritis).

3d. A hazy, semi-opaque appearance of the structures in which the retinal vessels run, by which the latter are in part concealed and rendered indistinct. In this state the margins of the choroidal rim are concealed, and the disc appears to be much increased in size, and to be limited by a shaded, indistinct edge. This "woolly" condition implies neuritis.

4th. The disc may be too red or too pale. The pallor sometimes amounts to absolute whiteness, sometimes it is blue-white, and sometimes it is a dirty gray tint. Sometimes the pallor affects the whole disc surface, and at others only a part. If only a part, the third next to the yellow spot is that usually affected, and in commencing cases, this is always the first to suffer. The pallor may indicate mere anæmia, with, perhaps, primary atrophy, or it may indicate an anæmia and atrophy which are secondary to inflammation. It requires much experience to decide this point.

5th. The disc, instead of being on the same level as the rest of the retina, may be pushed backward, or cupped as it is called. This cupping will be recognized by carefully tracing the main trunks of vessels, and observing whether they curve on passing over the choroidal margin. If the cup is well marked, the vessels will bend so much that they are lost sight of at the edge of the disc, to be found again on its surface, looking much smaller and paler than those in the retina, and requiring a little movement of the object-lens to bring them well out. Cups of this kind imply intra-ocular pressure, the characteristic of the disease known as glaucoma. With them pulsation of the vessels may often be observed.

Having carefully studied the disc, your attention will next be directed to the retina and its vessels. The retina ought to be almost perfectly transparent, but in dark eyes—and particularly in members of the dark races—a delicate haze, or bloom-of-plum appearance, may be observed in it, especially near to the yellow spot. You ought to be able to trace the retinal vessels with the greatest ease. If this can not be done, then inflammation of some kind or degree is present. The grand characteristic of inflammation, as far

as the retina is concerned, is opacity. This opacity may vary from the merest haze to that of the dense white or gray pellicle. By this haze the trunks of the vessels will probably be more or less concealed, but if the deeper layers of the retina are affected, their concealment may not be much. You will remember that the retina consists of three principal layers—that of rods and bulbs, which are close to the choroid, and probably fed by it, that of nerve cells, granular matter, etc., in the middle, and that of nerve tubes (derived from the optic), etc., which is innermost. It is in the latter layer only that the arteria and vena centralis run: these vessels have nothing to do with the deeper or outer layers. The inflammation may affect chiefly either the inner or outer layer, being in the one case a neuro-retinitis, in the other a choroïdo-retinitis.

In some cases of retinitis, as in that which attends Bright's disease, hemorrhages are very common.

The yellow spot is recognized almost as much by its negative features as by any distinctive peculiarities. It is situate a little to apparent nasal side (inverted image) of the optic disc, and is exactly opposite the observer when the patient looks at the ophthalmoscope mirror. No large vessels cross it. It is more highly pigmented than the neighboring parts, and also often looks rather hazy and indistinct. It is here that the deposits characteristic of Bright's disease are earliest seen.

The choroid is the tissue which gives color and glow to the fundus. It may vary exceedingly within the limits of health, and its variations will cause apparent haze, or otherwise, in the retina. Before trusting yourself to any ophthalmoscopic descriptions whatever, examine carefully the differences in the eyes of fair and of dark persons. In the latter you will find the choroidal epithelium full of pigment, and showing dark mapped out areas, which might easily be supposed to be morbid, whilst the vessels of the choroid are concealed. In the fair-complexioned eye the leases of vessels will be seen with marvelous brilliancy and beauty, and the suspicion of atrophy will be suggested.

It is much more common to see the results of inflammation in the choroid than to trace the early stages of such. The results are permanent and very conspicuous. The epithelium may be absorbed in large patches, usually with masses of black pigment remaining. The absorption may implicate deeper layers, and be attended by atrophy of the vascular rete and exposure of the sclerotic. The patchy condition in a case of choroiditis disseminata may be compared to that of a piece of well-marked tortoise-shell.

Inflammation of the choroid in patches is usually of syphilitic origin. Atrophy of the choroid, independent of inflammation, is frequent in advanced states of myopia.

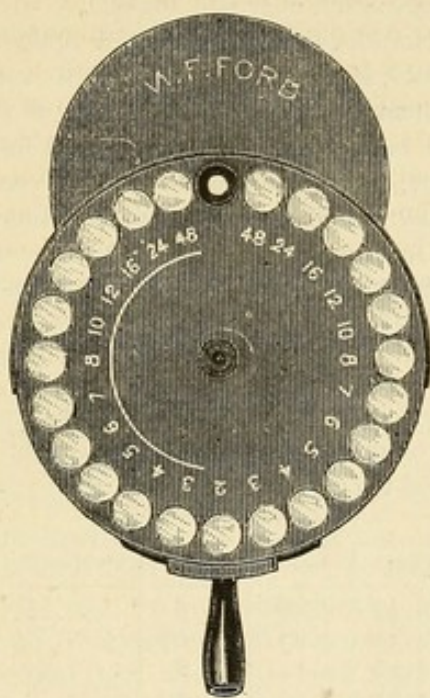
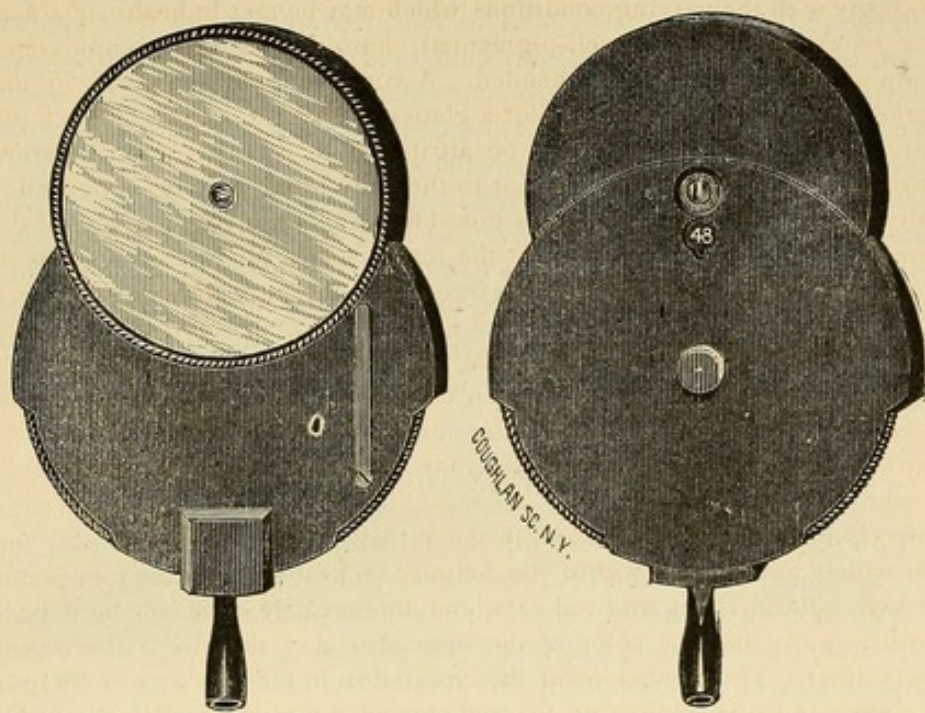
Inspection of the outlying districts of the fundus is easily done, by making the patient look upward, downward, etc., strongly. It should never be omitted; for not unfrequently changes may here be discovered which will be the key to the case. It is here that the dots of pigment, characteristic of retinitis pigmentosa, will be first found. Here also, in syphilitic inflammation of limited degree, patches may be sometimes found when there are none in the central parts of the fundus.

Having mentioned some of the chief morbid conditions to be expected, I will now specify some of the errors into which novices with the instrument are likely to fall. Like all other instrumental aids—and the stethoscope is a prominent example—the ophthalmoscope must be expected to lead to

many mistakes. It is difficult to use, and requires long experience before the observer can trust his own interpretation of what he has seen. Want of familiarity with the varying conditions which may be met in health, is a main cause of error. Thus a well-pigmented choroid in a dark-complexioned person may be easily misapprehended. A very large physiological cup may be taken for "white atrophy," or for a glaucoma cup; a margin of black pigment at the edge of the disc may be attributed to disease; and alterations in size of vessels, which are peculiar to the individual, may be supposed to imply anæmia or congestion. It is possible, also, in a highly pigmented eye, to mistake the yellow spot itself for the remains of a blood-clot. As to the common error of fancying the retina hazy when the appearances are due to opacity in one or other of the media, I have, I think, already said enough.

Degrees of vascularity are especially difficult of satisfactory comparison. You will hear one authority assert that the disc or retina is congested, when another will that declare they are quite normal. Let me warn you against the diagnosis of "congested retina." In four out of five of the cases in which the words "hyperæmic retina" are used, they are probably employed in error. Both in the optic disc and in the retina, the size of the vessels may differ widely and be still within the bounds of health. Just as one person may have a florid cheek and red ears, and another pale ones, yet both be in good health, so may the color of the optic disc and the size of the retinal vessels differ. The conditions of the circulation in the retina are such as to make any condition analogous to erythema of the skin simply impossible. If you find the retina visibly reddened, be sure that it is not simply "congested," but stained by effusion—in fact, inflamed. The individual arteries are too far apart to give any general red color to the whole. The interpretation of congestion must rest on the enlargement of their trunks only; and this, which is a comparative question, is very difficult to estimate. The old notions as to active congestions preceding inflammation, must be abandoned for the retina, as elsewhere. We now know that cell changes are the essential factors in inflammation, and that it is these that induce vascular changes. I do not by any means deny that the optic disc and retina may in some cases contain too much blood, and yet show no trace of inflammation; but I feel sure that these conditions are far less frequent than they are thought, and I warn the beginner against the fatal facility of explaining amblyopia by discovering congestion.—*Clinical Reports of London Hospital, 1867-8, p. 182.*

Knapp's Single-Disc Ophthalmoscope.



CASWELL, HAZARD & CO. N. Y.

Knapp's Single-Disc Ophthalmoscope.

To use these instruments conveniently, Dr. Knapp arranged a table which shows the most suitable combinations, representing, in near approximation, the numbers of spectacles contained in our ordinary trial-cases. Furthermore, he has calculated the shortening and elongation of the optical axis corresponding to each convex and concave glass. A third table refers to aphakial eyes, *i.e.*, eyes in which the crystalline lens is absent. These tables will be sold with the instrument, and may be hung up in the ophthalmoscope-room for reference, whenever we want to determine the location of any object in the background of the eye. The measurement of the height of an elevation or the depth of a depression requires no more than the ophthalmoscopic determination of the location of the two remotest points of the morbid parts, and the addition or subtraction of their corresponding values as found in the table.

Dr. H. Knapp's Double-Disc Ophthalmoscope.

Two discs are placed behind the mirror, the upper containing one empty aperture and thirteen concave glasses; the lower one empty aperture and thirteen convex glasses. Each disc is fastened like the one in the Single-Disc Ophthalmoscope, and is moved separately—the superior one on the upper edge of the instrument, the inferior one on either side of its lower end. The edges of the two discs overlap behind the opening in the mirror in such a way that by combination of concave and convex glasses, as great a variety of auxiliary lenses can be obtained as the most minute physiological and pathological examination ever will require.

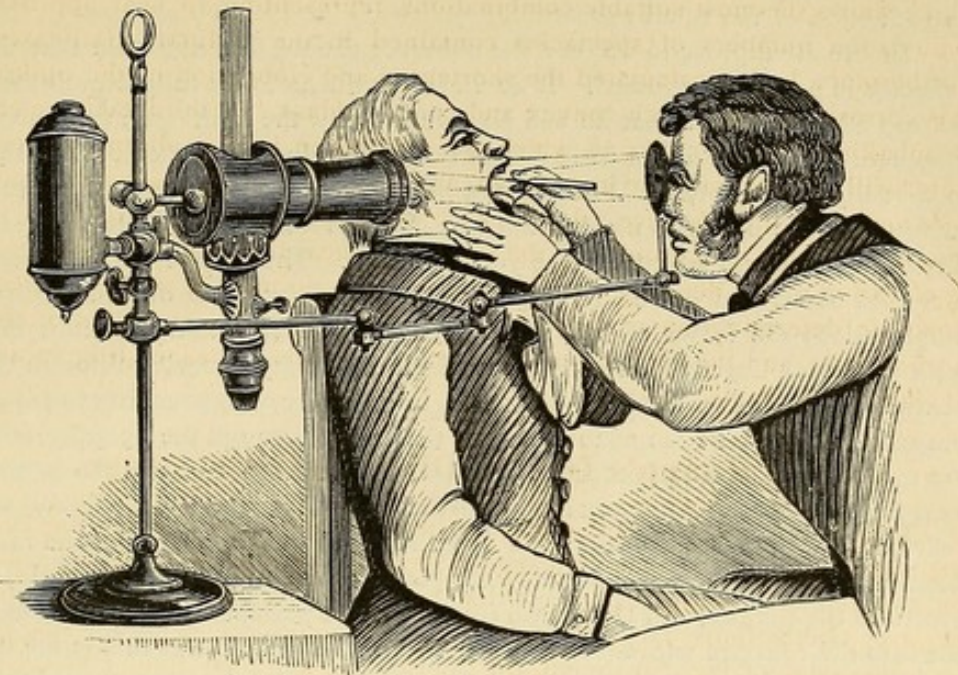
This is the only instrument offering a *complete series of correcting glasses to the expert ophthalmoscopist*, if he wants accurately to ascertain the dioptric condition of an eye, independently of the statements of the patient, or to determine the relief of the background of the eye and follow its changes in the course of exudations, tumors, excavations, etc. A full description of this instrument, with many practical remarks, may be found in the "Archives of Ophthalmology and Otology, 1874, Vol. III., No. 2, pp. 1-25." A convenient series of glasses, their combinations and optical effects, are seen in the following table:

Table

Indicating the ophthalmoscopic determination of the shortening, resp. elongation of the ocular axis by means of positive, resp. negative auxiliary lenses. The instrument to be held twenty millimeters from the patient's eye.

No. of Glass.	Obtained by Combination of.	Shortening.	Elongation.	No. of Glass.	Obtained by Combination of.	Shortening.	Elongation.
± 2	.....	6.12	5.08	± 6	.....	1.91	1.80
± 2 $\frac{1}{5}$	± 2 ∓ 17	4.93	4.23	± 6 $\frac{1}{2}$	± 6 ∓ 48	1.62	1.56
± 2 $\frac{1}{2}$	± 2 ∓ 10	4.80	4.14	± 8	.....	1.42	1.36
± 2 $\frac{2}{3}$	± 2 ∓ 8	4.27	3.90	± 10	.....	1.13	1.09
± 3	.....	3.95	3.49	± 12	.....	0.94	0.91
± 3 $\frac{1}{5}$	± 3 ∓ 48	3.68	3.28	± 14	.....	0.80	0.78
± 3 $\frac{1}{7}$	± 3 ∓ 20	3.32	2.99	± 17	.....	0.66	0.65
± 3 $\frac{1}{11}$	± 3 ∓ 14	3.05	2.78	± 20	.....	0.56	0.55
± 4	.....	2.91	2.65	± 24	.....	0.467	0.459
± 4 $\frac{1}{5}$	± 4 ∓ 33	2.63	2.42	± 33	.....	0.339	0.335
± 5	± 4 ∓ 20	2.31	2.14	± 48	.....	0.232	0.230
± 5 $\frac{1}{3}$	± 4 ∓ 14	2.05	1.92				

Dr. Toboldt's Large Nickel-plated Laryngoscope and Large Size Student's Lamp.



No. 916.

On the Use of the Laryngoscope.

BY DR. E. H. SIEVEKING,

Physician in Ordinary to the Prince of Wales, and to St. Mary's Hospital.

BEFORE speaking of laryngeal pathology as exhibited by the laryngoscope, let me say a few words anent the apparatus to be employed, the method of using it, and the points to be observed.

What do you want to do? In plain English, you want to look round a corner into a dark hole. This sounds paradoxical, but the paradox is solved by the laryngoscope.

The light, either of the sun or of a lamp, is received on a mirror attached to the observer's forehead, from which it is reflected on to a small mirror which is introduced into the fauces of the patient, and from this mirror again the light is thrown down upon and into the larynx. The angle of incidence being equal to the angle of reflection, you have merely to place your mirrors in such a relation to one another, as to secure the proper direction of the rays of light, and a perfect and distinct image of the parts illuminated will be visible on the small mirror.

The sun can not be relied upon at any hour of the day; and patients would not, even if the sun were always shining, present themselves when his rays penetrated a given locality. We therefore find it much more convenient to trust to artificial light altogether, and accordingly have recourse to a gas moderator, or a paraffine oil lamp, which are not amenable to the caprices of the weather.

It is well to darken the room in which you make your examination; but even this is not absolutely necessary if the light is protected by a convex mirror on one side, and concentrated by one or more lenses on the other. Various apparatuses have been devised for the purpose of intensifying the light. The lamp should be placed close to the patient's head, on either side

most convenient to the observer, and so that the lamp and the patient's and observer's heads are in the same horizontal plane. The patient, sitting erect, should push his head back so as to straighten the neck, and facilitate the introduction of the small mirror.

Before attempting to do this, the observer should first ascertain that the reflector is properly adjusted. If he finds that the mouth is fully illuminated, he may fairly conclude that he will be able to throw the light upon the fauces. Beginners generally find a little difficulty in adjusting the reflector, but this is speedily surmounted. Whether you place your mirror on your forehead, or whether you prefer to use it fixed to a lamp, is a matter of little moment. Try both ways, and adopt the one you like best. The mirror I employ has a central uncovered spot. It is an improvement upon the original mirror employed by the father of laryngoscopy, Professor Czermak. I admit that with Professor Czermak's instrument, I had a difficulty in seeing through the central orifice, but with this modification I find it advantageous first to adjust the reflector so that I am enabled to see the fauces through the opening, with the eye covered with the reflector, and then I am certain to have the proper axis for both eyes. After you have satisfied yourselves that the lamp and the reflector (which is fixed on the head by an elastic band passing over the forehead) are in the right position, tell your patient to open his mouth widely, to protrude the tongue, and to breathe freely. Some patients will permit you to see into their larynx without in any way fixing the tongue, but this is the exception. As a rule, it is necessary that the patient, or the observer, should take hold of the tip of the tongue with a handkerchief or towel, or to use a tongue depressor, to prevent this "unruly organ" from slipping back. Without this precaution, you very often fail in your endeavors to see below the epiglottis. Your next step, after having got your patient in the proper position, is to warm the laryngeal mirror. This is necessary, to prevent the vapor of respiration being precipitated on and dimming the mirror; but take care not to overheat it. As a precaution, it is well to test the temperature, by applying the back of the mirror to your own cheek.

Take hold of the stem of the mirror as if you were holding a pen; introduce it into the mouth without touching the tongue, teeth, or lips, sinking the hand at first, and then raising it gradually, so as to allow the mirror to form a curve until it reaches the uvula. Almost the whole secret of the manipulation in laryngoscopy consists in this. If you touch the lips or teeth, you tease the patient, but if you touch the tongue, you are certain to excite reflex action, and the root of the tongue will arch up to impede your view. *Audacem fortuna juvat.* Push your mirror, after having passed the janitors, well against the uvula, and you will rarely meet with any serious impediment in getting a proper view of the larynx. An unsteady hand creates difficulties which need not exist, by bringing the mirror into contact with other parts than the uvula and soft palate. These are not very sensitive, but if you tease the root of the tongue, or the arches of the palate, you infallibly excite reflex action, which will necessitate the withdrawal of the instrument. Having placed your mirror at an angle of about 45° with the horizon, it is well to rest the little finger of the right hand against the patient's cheek, by which means you will steady the instrument. You then secure a proper illumination of the laryngeal mirror, and by the necessary manipulation, which practice alone can teach, you successively examine all the parts exposed to view.

In making the examination and recording the facts observed, you must remember that you are looking into a mirror, which represents the parts in a

different relation from their real position. The epiglottis, which in nature is turned from the observer, is represented as opening toward him ; the base of the tongue, which is in front of the epiglottis, appears in the mirror behind it ; and the vocal cords equally occupy in the mirror a reversed position from that which they really possess. As laryngoscopic illustrations represent the appearances as seen in the mirror, it is necessary to remember the true relation, in order to understand the drawing correctly. The lateral relations will cause less difficulty than the antero-posterior relations. What ordinarily appears to be the left or right, in the subject of observation placed before us, still continues so. We readily make the necessary allowances here from the habit engendered by custom ; but it is different in regard to objects placed in front of each other, and reflected in a mirror, because for this our daily life offers us fewer precedents. Perhaps the easiest way to realize the position of the parts as seen in the mirror, is to imagine yourselves looking at the epiglottis and vocal cords through a hole in the cervical portion of the vertebral column. To the beginner I would say, make your first experiment upon a case in which you are informed there is no special difficulty ; remember the rules laid down ; bear in mind the anatomy of the parts, and the direction in which you wish to carry the light ; and, with a light and steady hand, you will scarcely fail, after one or two attempts, to see that which is ordinarily visible by the aid of this instrument.

Now, what are you to look for? The first point that always attracts the attention of the observer, after having got the light and the mirror duly placed, is the epiglottis. It is the Cape of Good Hope of the laryngoscopist, and it is at times a difficult matter, a very difficult matter, to round the Cape. You will find that it varies as much in form as the nose, and its position not unfrequently is so prone as to render a good view of the subjacent parts almost an impossibility. Then, too, in irritable persons it undergoes a variety of contortions and contractions, which give it a character for muscularity greater than anatomists show it to possess. Still, as a rule, it serves merely as a landmark anatomically and pathologically ; anatomically, because its well-known relations tell you in what direction to look for more important organs ; pathologically, because the appearance of the mucous membrane covering the epiglottis is often a valuable indication as to the state of the subjacent parts. Examine the epiglottis carefully, the form, the color, the attachments. It should be perfectly smooth, of a pale, yellowish rose hue, and symmetrical. Look at the fossa formed by the front of the epiglottis with the base of the tongue, and note the state of any secretions upon or near the epiglottis. In disease, you will see its color varying from the dull white of anæmia to every shade of uniform, or streaky and patchy redness. It may present ulcers of varying size and depth ; it may be deformed by old cicatrices or congenital malformation ; tumefaction from inflammatory or œdematous thickening of the mucous and submucous layers may present itself ; and it may exhibit extravasations of blood, or be more or less bathed in pus, or covered with a mucous secretion. Similar conditions may be discovered in the glotto-epiglottid fossa, or on the glotto-epiglottid folds. In order to see the parts subjacent to the epiglottis, you will have to depress the handle of your mirror somewhat, so as successively to illuminate the posterior surface of the epiglottis ; the arytenoid cartilages, with the corpuscula Santorini and Wisbergii ; the superior thyro-arytenoid folds, or the false vocal cords, as they are also called ; and by turning the mirror laterally, you will examine the right and left sides of the introitus laryngis, and especially the state of the ventricles of the larynx. These are cul-de-sacs intervening between the

vocal cords proper and the superior thyro-arytenoid folds. The state of the ventricles has an important bearing on the production of the voice, inasmuch as their patulousness is essential to the free vibration of the vocal cords, and the due production of voice. If the mucous membrane of the ventricles is swollen, the pitch and sonorousness of the voice are interfered with, and the more the pouch is obliterated, the greater will be the interference with phonation. It is here that various secretions form and accumulate, and you will readily understand why these should more or less affect the voice, as they present obstacles to the passage of the air, or diminish the vibrations of the aerial pulse. If the secretions are viscid, you may at times be puzzled by strings of mucus extending across the entrance of the larynx, closely simulating the vocal cords themselves. Little patches of secretion may also simulate ulcers. The sponge or brush will readily remove such secretions, and show the condition of the subjacent membrane. The ventricles, moreover, are the frequent seat of morbid growths. All these points having been noted, you seek the vocal cords themselves.

In a healthy larynx, the vocal cords stand out, with a clear pearly sheen which is peculiarly characteristic. Once seen, the appearance is not to be forgotten; and you will often, in doubtful cases of laryngeal disease, rejoice at recognizing this striking feature, because it will prove that the most important part involved in phonation (so far as the larynx is concerned) is healthy. The vocal cords, or inferior thyro-arytenoid ligaments, are mainly composed of yellow elastic tissue, but are endowed with the most marvelous capability of minute vibratile adjustment, subject to the controlling power of the will, exercised through the arytenoid, thyro-arytenoid, crico-arytenoid, and other muscles. It has been calculated that no less than one hundred muscles are brought into action in the ordinary modulation of the voice, but the note which is uttered depends upon the exact degree of tension of two ligaments, at the utmost seven lines in length, which is mainly determined by the two sets of muscles mentioned. You will have a measure of the minuteness of this adjustment when you reflect, that a practiced singer is capable of uttering three hundred different notes at will, for each of which, on this minute vibrating cord, a different stop must be applied.

The vocal cords are covered with mucous membrane, distinguished from the mucous membrane of the rest of the larynx, which is ciliated, by being squamous. The mucous membrane overlies the elastic tissue of the cords, and is liable—though to a much less extent than the mucous membrane in the vicinity—to congestion, and the various morbid changes which are seen in this tissue elsewhere. An accurate knowledge of the anatomy and physiology of the parts will enable you more fully to appreciate the importance of minute shades of difference in the appearance of the parts. A roughness of the surface or a discoloration, which would lead to no palpable results elsewhere, here affects the comfort, the occupation, the life of the patient, and is therefore well deserving the study of the practitioner by any additional physical means that may be placed at our disposal. Here, too, we have a good illustration of the difference between vital morbid conditions and the condition of the same parts as seen after death; a difference that you should always bear in mind, as you may otherwise easily be misled into a wrong interpretation of the phenomena presented on the post-mortem table. If you had merely seen the interior of a larynx removed from the body, you would scarcely anticipate the marked contrast that exists in life between the vocal cords and the adjacent parts, nor would it be possible satisfactorily to determine the mode in which the variations of sound are

produced by the vocal cords. You will find that there was much uncertainty as to the theory to be adopted regarding vocalization, even in Müller's time; and it was not until after the practical introduction of the laryngoscope by Czermak, that the study became satisfactory and the conclusions definite. If I name Czermak, it is not because I do not appreciate the labors of others in this field; but whatever others have done, he certainly has compelled us all, by the demonstration of the comparative facility of laryngoscopic examination, to make it a part of our medical studies.

It would be an injustice, in speaking of the subject, not to mention the name of M. Garcia, a well-known singer and amateur physiologist, who established by laryngoscopic examination much that is now known as to the physiology of the larynx before Czermak had made known his method; but the pearl that M. Garcia discovered was not appreciated by our profession, and therefore, so far as the medical world is concerned, laryngoscope remained an unknown quantity until the appearance of Czermak's monograph.

It is not my object, for the present, to do more than to interest you in the practical employment of the laryngoscope in the recognition and treatment of disease; therefore I do not attempt to lay before you an account of laryngeal physiology—a branch of science which is capable of further development, and which some of you may feel called upon to promote. Allow me yet to revert to a few points connected with the pathology of the larynx, to which I would draw your attention, as illustrating the value of this mode of investigating disease. The practical examination of the numerous cases that present themselves in our hospital will serve to impress upon your memory and comprehension more vividly what I now merely show you *veluti in speculo*.

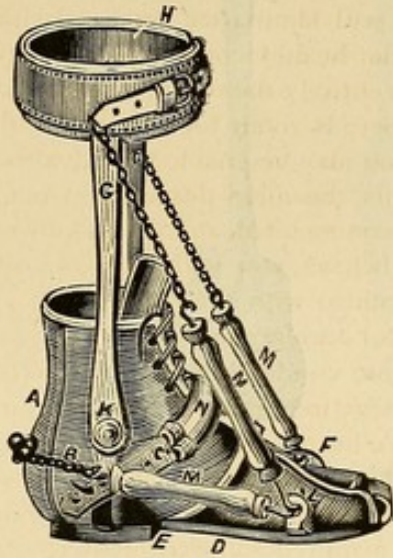
I have spoken of various morbid changes seen in or near the vocal cords, showing increased or diminished vascularity, congestive or œdematous swelling, ulceration, cicatrices, growths, all of which I have myself seen. If you consider the muscular and the nervous functions of the parts, you will expect to see these also materially affected by disease. The *plus*—evidenced by spasm—is not likely to be very visible, because it will not leave you time for any thing but immediate action to relieve your patient; but the *minus* of paralytic conditions is frequently observable in their regular action, or want of action, of one or both vocal cords. It is here that stimulation, and notably the direct application of galvanism, is often of palpable benefit. And you will not examine many larynges before you will satisfy yourselves of the perfect facility with which you may direct the galvanic current, as well as any other medicinal application, to any given part of the larynx.

I have not, however, quite done yet. You may see further than the vocal cords. Their under surface can at present only be examined when there is a hole in the trachea, and at least one instructive instance is on record where this mode of exploration was practiced with much benefit to the patient. But these are refinements of practice upon which it is unnecessary to dwell. I now merely speak of the ordinary employment of the laryngoscope, and I wish to remind you, that having explored the entrance to the larynx and the vocal cords, you should examine, as far as may be, the trachea. It is generally easy to recognize several rings of this tube, and you may, when the larynx is capacious and the patient steady, penetrate to the very bifurcation of the trachea. The only morbid conditions that I have definitely recognized in the trachea have been scattered ulcers; but it is manifest that, especially in those cases in which foreign bodies have slipped though the glottis, the discovery of their exact site by the laryn-

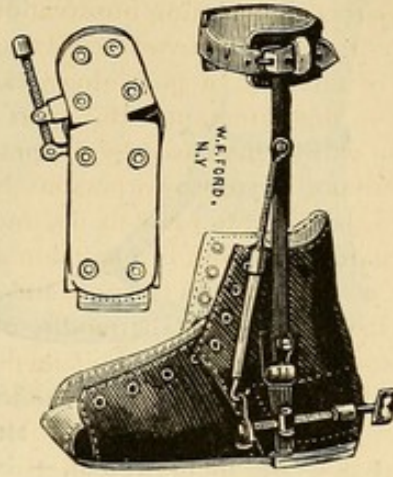
goscope may, as it already has been, prove of great practical value to the surgeon.

There is no better mode of initiating yourself into the practice of laryngoscopy than to examine your own larynges, or those of your fellow-students. By this kind of exercitation, you will familiarize yourself with the use of the instrument, no less than with the healthy condition of the parts. M. Garcia's interesting observations were entirely the result of examination made upon his own vocal cords, and as there is room for a further cultivation of this field of physiology, each of you may be enabled to advance science in this direction. But apart from this, the mere dexterity of manipulation will be increased by the practice recommended, and if you know from experience in your own persons how to behave, you will more readily advise your patients what to do, and sympathize with their difficulties. Not every one, however, is a suitable subject for autolaryngoscopy; the narrowness of the introitus laryngis and the prone condition of the epiglottis, no less than an unusual irritability of the parts, frequently render the process extremely difficult. Various methods have been suggested for the removal of undue irritability, such as the inhalation of small quantities of chloroform, the application of bromide of potassium, or the use of astringent gargles. Every now and then, even after you have acquired sufficient dexterity in the use of the instrument, you will meet with cases which present insuperable difficulties. You are then no worse off than your predecessors were without the laryngoscope. You will have to fall back upon those other symptoms which your knowledge of physiology and pathology will teach you to appreciate, and which this instrument is not intended to supersede.—*Lancet*, April 8, 1865, p. 360.

**Orthopædic Apparatus, Shoulder Braces, and Apparatus
for the Treatment of Deformities, Debilities,
and Deficiencies of the Human Frame.**



No. 1453.

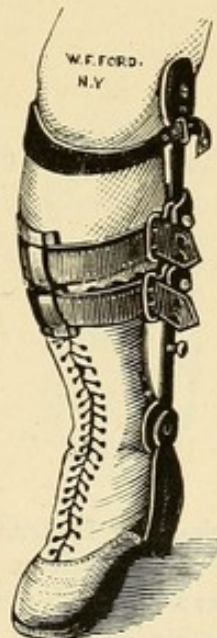
Sayres' Club-foot Shoe.

No. 1455.

Improved Club-foot Shoe.**MEASUREMENTS.**

Place the sole of patient's foot on paper and sketch it, and give :

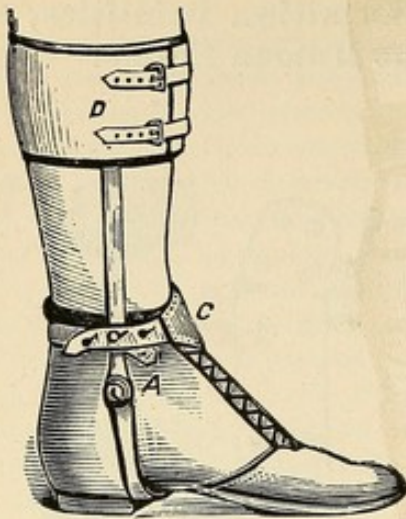
1. Length of sole of foot, — inches.
2. Circumference of calf, — “
3. “ “ above ankle, — inches.
4. Length from sole to upper part of calf, — inches.
5. Right or left foot?
6. Talipes—varus or valgus?



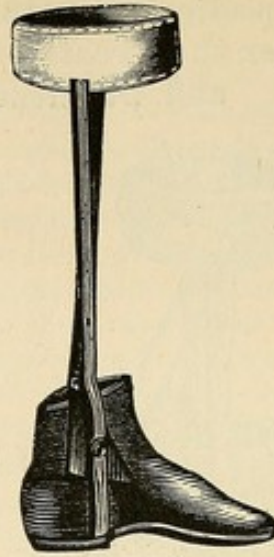
No. 1456.

Bow-Leg Apparatus.**MEASUREMENTS.**

1. Length from sole to ankle-joint, — inches.
2. “ “ “ knee “ — “
3. Circumference below knee, — “
4. Right or left foot?



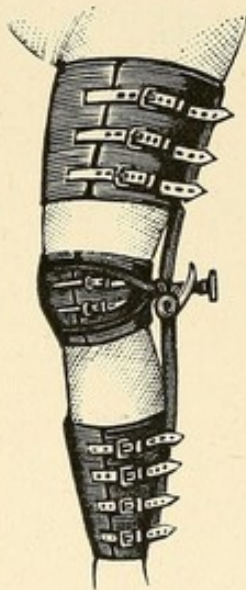
No. 1458



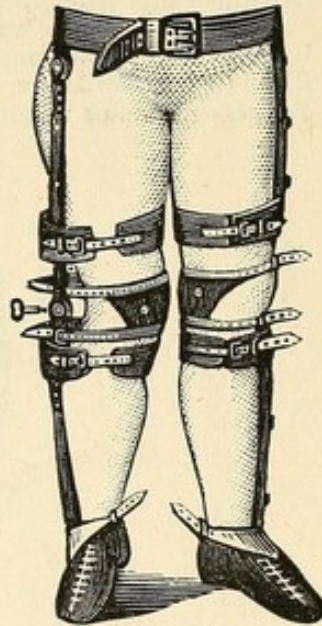
No. 1458a.

Weak-Ankle Instruments.**MEASUREMENTS.**

1. Circumference at calf, — inches.
2. Length from sole to ankle-joint, — inches.
3. " " " to middle of calf, — inches.
4. Ankle turning in or out?
5. Right or left foot?



No. 1459.



No. 1459a.

Knock-Knee Instruments.**MEASUREMENTS.**

Place the patient on paper and sketch the limbs, and give :

1. Length from sole to the hip, — inches.
2. " " " " knee-joint, — inches.
3. Circumference at waist, — inches.
4. " " thigh, — "
5. " " knee, — "
6. " " ankle, — "
7. Right or left foot?

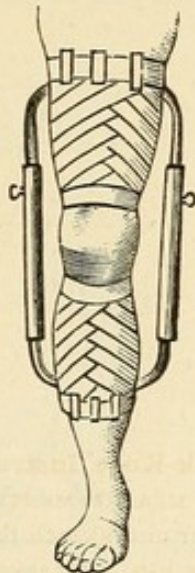


No. 1460.

Dr. J. R. Wood's Splint, for Fractured Patella.

MEASUREMENTS.

1. Length from ankle to knee-joint, — inches.
2. Circumference at middle of thigh, — “
3. “ “ knee, — “
4. “ “ calf, — “
5. “ “ ankle, — “
6. Right or left foot?

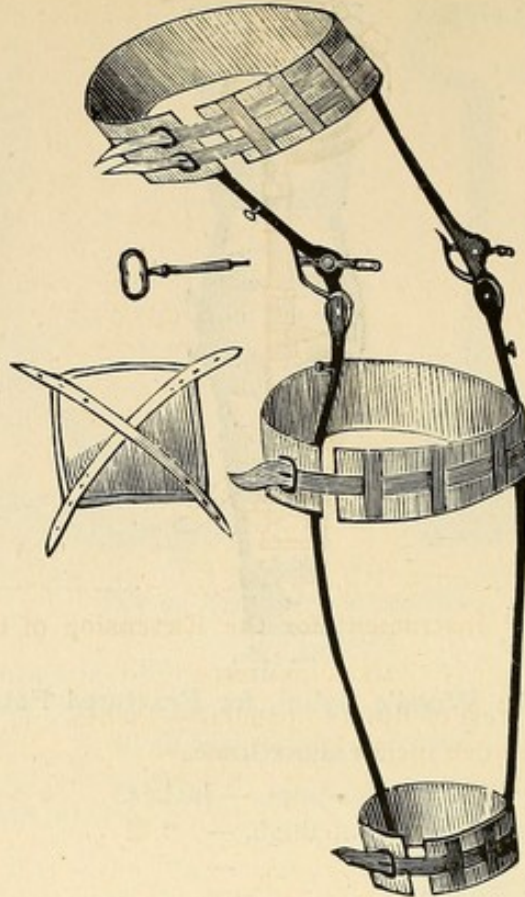


No. 1462.

Dr. Lewis A. Sayres' Instrument for Extension of the Knee-Joint.

MEASUREMENTS.

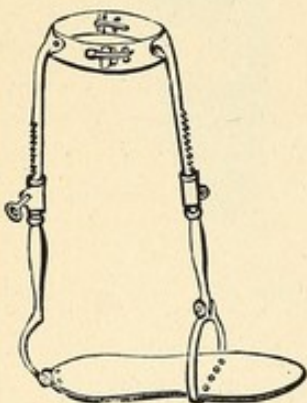
1. Circumference four inches above knee-joint, — inches.
2. “ four “ below “ “ — “



No. 1461.

**Dr. J. R. Wood's Splint, for After-treatment of Fractured Patella,
with Screw Joints.**

MEASUREMENTS THE SAME AS NO. 1460.



No. 1463.



No. 1463.

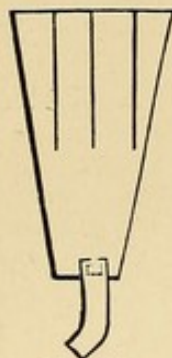


No. 1463.

Dr. L. A. Sayres' Instrument for the Extension of the Ankle-Joint.

MEASUREMENTS.

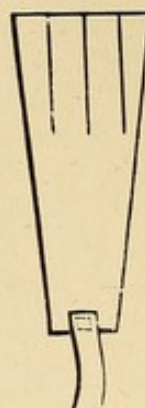
1. Length of the sole of foot, — inches.
2. " from sole to two inches below knee, — inches.
3. Circumference at calf, — inches.



No. 1464.



No. 1464.

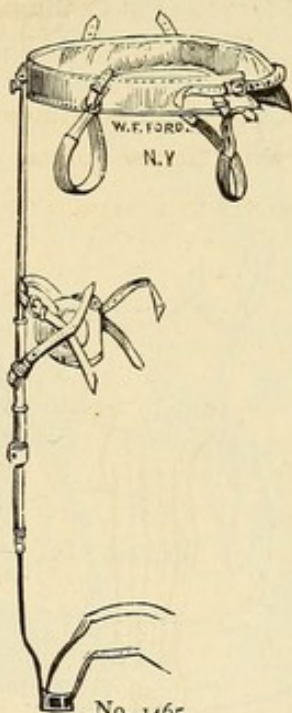


No. 1464.

Dr. L. A. Sayres' Instrument for the Extension of the Hip-Joint.

MEASUREMENTS.

1. Length from crest of ilium to patella, — inches.
2. Circumference two inches above knee, — “
3. Right or left leg?



No. 1465.

Dr. Taylor's Instrument for Extension of the Hip-Joint.

MEASUREMENTS.

1. Circumference above crest of ilium, — inches.
2. “ “ at knee, — inches.
3. Length from crest of ilium to sole of foot, — inches.
4. “ “ “ “ to patella, — inches.
5. Right or left leg?

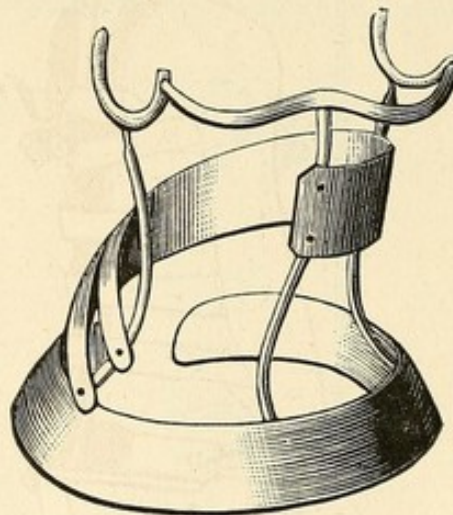


No. 1467.

Dr. Bauer's Instrument for Extension of the Hip-Joint.

MEASUREMENTS.

1. Right or left leg?
2. Length from sole of foot to crest of ilium, — inches.
3. " " " " " perineum, — inches.
4. Circumference at calf, — inches.
5. " " thigh, — "
6. " " ankle, — "



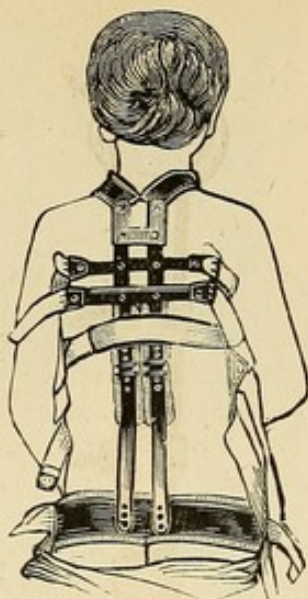
No. 1468.

Instrument for Lateral Curvature of the Spine.

MEASUREMENTS.

1. Circumference around the hips, 1 inch below crest of ilium, — inches.
2. Length from crest of ilium to axilla, left side, — inches.
3. " " " " " right " — "
4. Circumference around the chest, under the axilla, — inches.
5. Is the curve to the right or left side?

S1

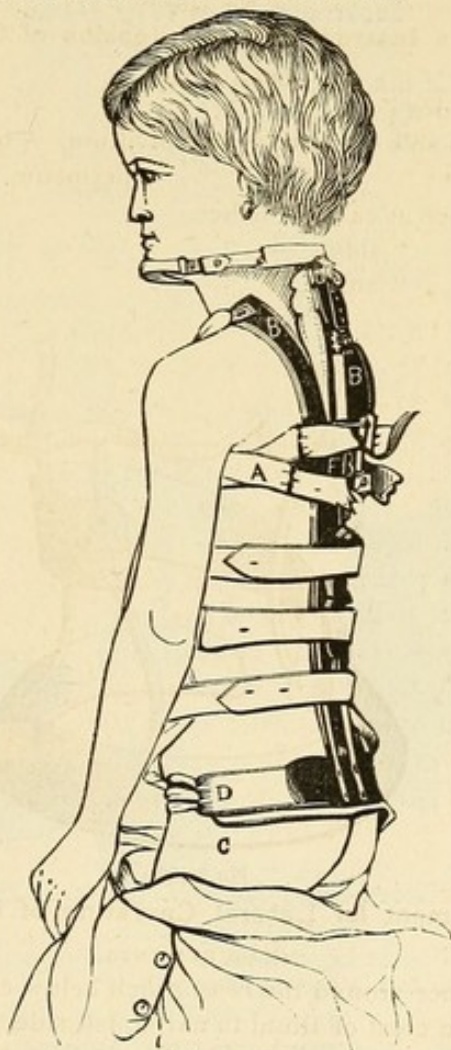


No 1471.

Taylor's Apparatus for Pott's Disease.

MEASUREMENTS.

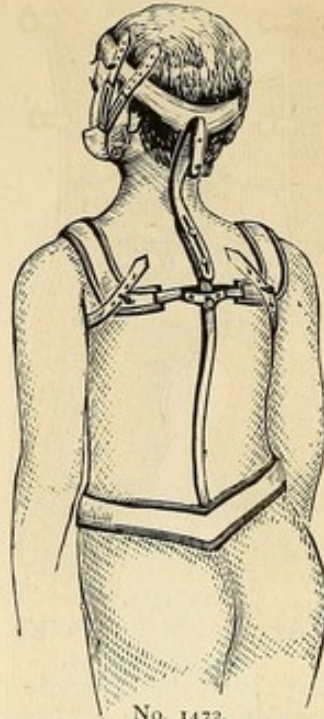
Cut card-board edgeways to fit the projection; give the same measurements No. 1468, and state which vertebra is affected.



No. 1471a.

Taylor's Instrument for Pott's Disease in the Neck.

MEASUREMENTS SAME AS NO. 1471.

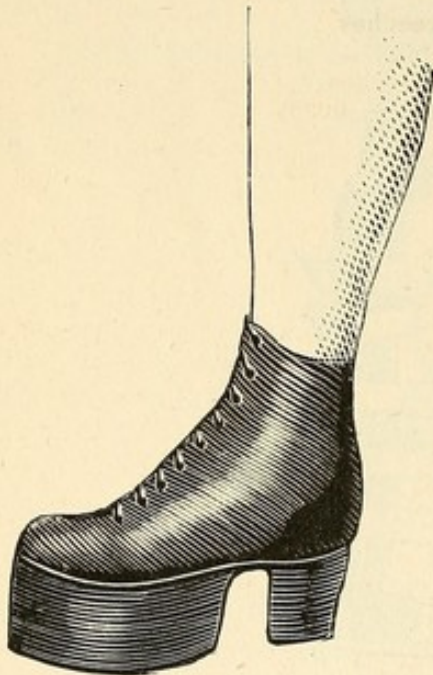


No. 1472.

Instrument for Wry Neck.

MEASUREMENTS.

- The same as in No. 1468, and in addition :
1. Head leans to right or left side?
 2. Circumference of the neck, — inches.



No. 1.

Cork Soled-Shoe for Deficiency of the Leg.

MEASUREMENTS.

1. The size of shoe or boot used.
 2. How many inches is the deficiency?
- Price, \$15.

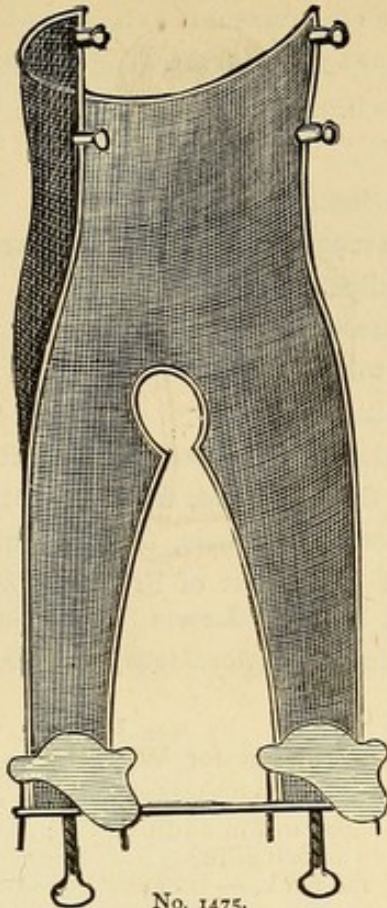


No. 2.

Steel Sole and Pillars for Shortening of the Leg.

MEASUREMENTS SAME AS ABOVE.

Price, without shoe, \$6.

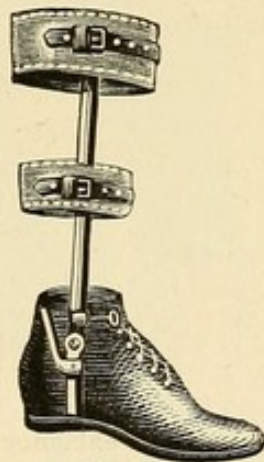


No. 1475.

Bauer's Wire Breeches.

MEASUREMENTS.

1. Length from sole of foot to axilla, — inches.
2. " " " " perineum, — inches
3. Circumference of calf, — inches.
4. " " " knee, — "
5. " " " thigh, — "
6. " " " waist, — "
7. " " at the nates, — inches.



No. 14547.

Instrument for Lifting the Toe.

MEASUREMENTS.

1. Length from sole to ankle-joint, — inches.
2. " " " middle of calf, — inches.
3. Circumference at ankle, — inches.
4. " " " calf, — "
5. Right or left foot? Price, \$10.

In all cases where an instrument is to be attached to a shoe, please send us a well-fitting shoe that LACES in front.

In addition to these instruments mentioned, we make a large variety of other appliances, as,

Apparatus for Caries of the Spine.

Apparatus for overcoming Muscular Contractions of any kind.

Apparatus for Talipes Calcaneus.

Apparatus for Paralysis of the Legs.

Apparatus for Hemiplegia.

Apparatus for Paraplegia.

Apparatus for Anterior Curvature of the Tibia.

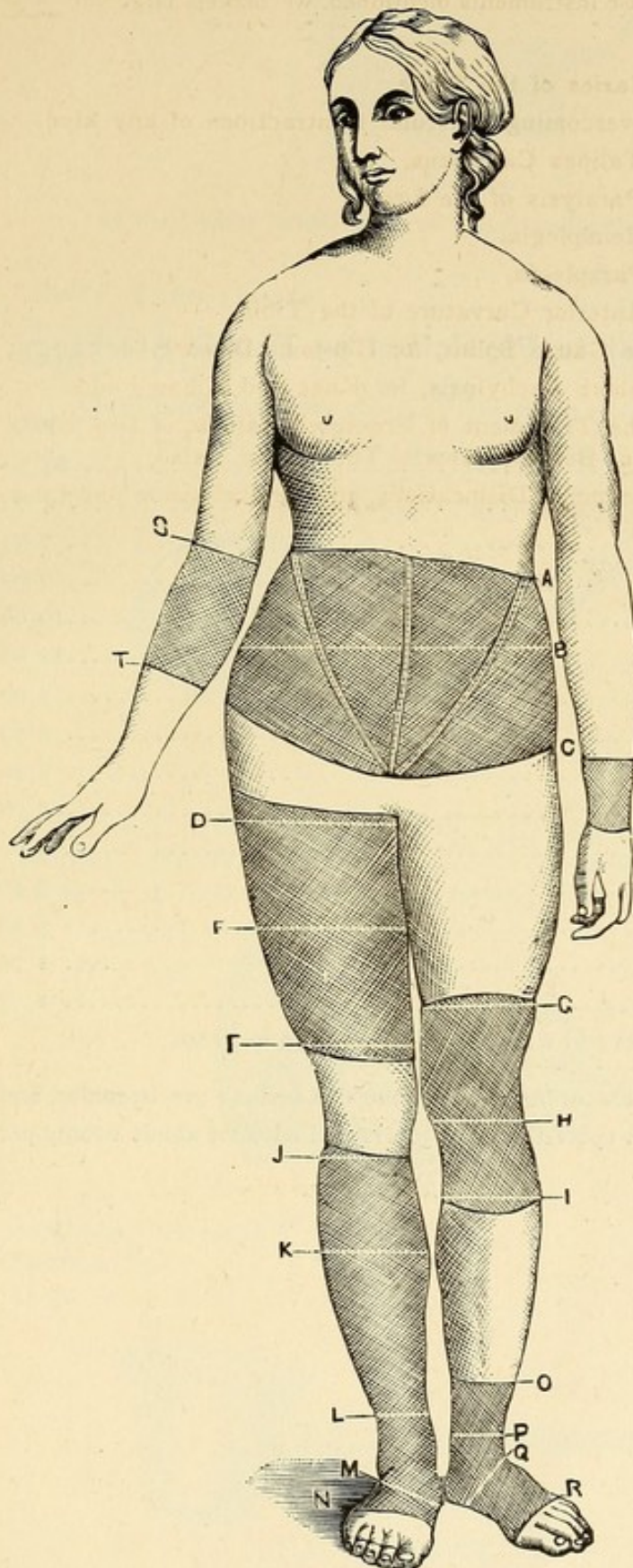
Hamilton's Wire Gauze Splint, for Hip-joint Disease.

Apparatus for Short Anchylosis, for Knee and Elbow-joints.

Apparatus for the Treatment of Fractured Patella, of Drs. Harts-horn, Hamilton, Boisnot, Lewis, Turner, etc. ; also,

Apparatus for Reducing Dislocations, and for Extension and Counter-Extension.

Silk Elastic Stockings, Knee-Caps, etc.



No. 1532.

No. 1532 shows the different appliances made of Elastic Goods, either in Silk, Cotton, or Linen.

The measurements required to fill orders are as follows:

For ANKLETS, circumferences at O, P, Q, R.

For LEGGINGS, circumferences at J, K, L, and length from J to L.

For STOCKINGS BELOW KNEE, circumferences at J, K, L, M, N, and length from J to sole of foot.

For KNEE-CAPS, circumferences at G, H, I.

For KNEE-STOCKINGS, circumferences at E, F, H, J, K, L, M, N, and length from E to H, and E to sole of foot.

For THIGH-STOCKINGS, circumferences at D, E, F, H, J, K, L, M, N, and length from D to H, and D to sole of foot.

For SUPPORTERS, circumferences at A, B, C, and what width required in front.

For WRISTLETS, circumferences at U, V, and length from U to V.

For ARMLETS, circumferences at T, S, and length from T to S.

In ordering any of the above, please give the *exact* measures, as we allow for compression. State which material (silk, cotton, or linen) is preferred, and whether light or heavy goods are required.

All the above are also made to lace.

A full line constantly on hand and made to order at short notice.



Special Price-List to Physicians on Elastic Stockings, etc

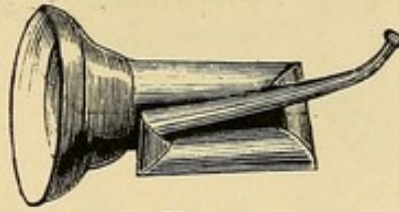
No.	Price.
1532, on page 35.....	\$3 50
1533, " ".....	4 00
1534, " ".....	7 00
1535, " ".....	6 00
1536, " ".....	10 00
1537, " ".....	12 00
1538, " ".....	3 00
1539, " ".....	2 50
1540, " ".....	2 50
1541, " ".....	3 00
1542, " ".....	2 00
1543, " ".....	3 50
1544, " ".....	5 50
1545, " ".....	1 75
1546, " ".....	1 75

Armlets and wristlets to order, \$1.75 to \$4.50.

If any stockings are ordered where the dimensions are irregular, and we have to make them specially, these prices will advance about twenty per cent.



Ear Trumpets, Auricles, Conversation Tubes, etc.

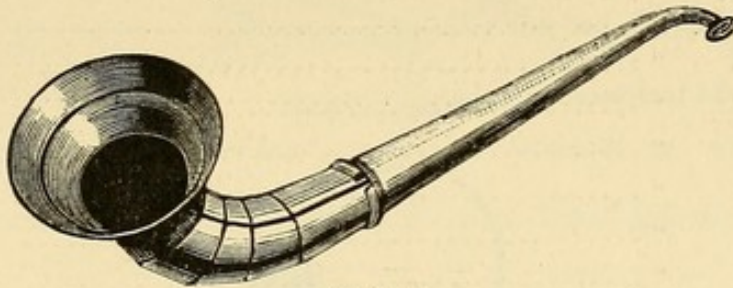


No. 902a.

In three sizes, made either of Tin (japanned) or German silver.

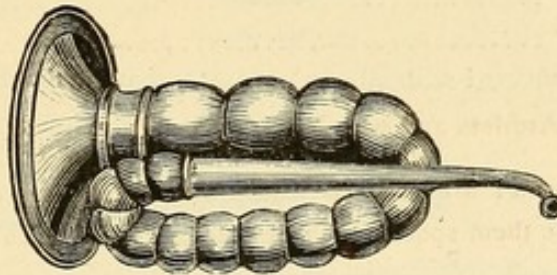
	Japanned.	German Silver.
Small size, 2½ × 4 inches.....	\$2 50	\$4 00
Medium " 3 × 5 "	3 00	4 50
Large " 3½ × 6 "	3 50	5 00

These Trumpets come also in brass, finely nickel-plated, and cost \$3.50, \$4.00, and \$4.50.



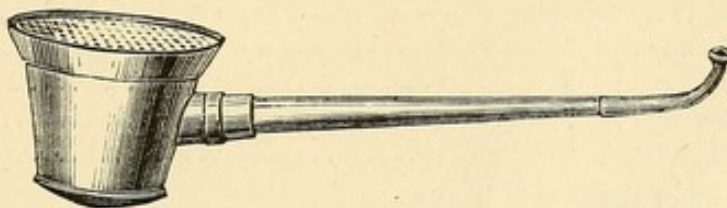
No. 902b.

	Japanned.	German Silver.
Small size, 3 × 12½ inches.....	\$3 50	\$5 00
Medium " 3½ × 14½ "	4 00	6 00
Large " 4 × 17 "	4 50	7 50



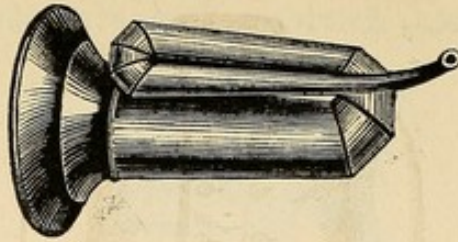
No. 902c.

	Japanned.
Small size, 3 × 6 inches.....	\$3 50
Medium " 3 × 7 "	4 00
Large " 4 × 8 "	4 50



No. 902d.

Large size only.....	\$6 00
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No. 902.

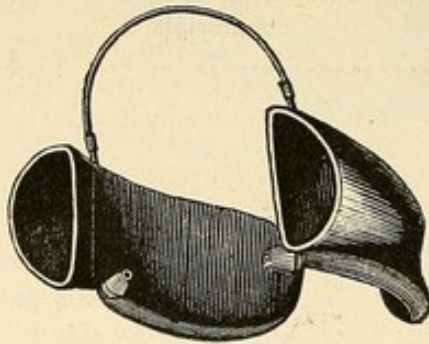
Large size, 3 x 6.....	\$3 00
Medium " 2½ x 5.....	2 50



No. 869. No. 893. No. 897.

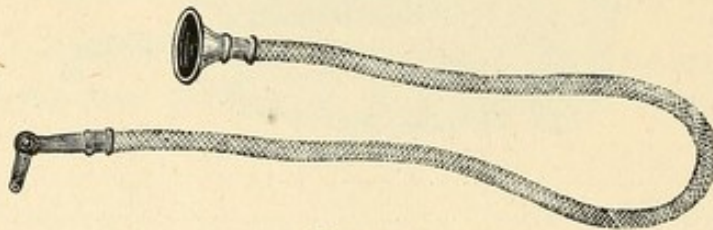
Made of silver, and flesh-colored on the inside: fit the ear perfectly.

No. 898, right and left, per pair.....	\$5 00
897, plain, "	4 00
869, artificial tympanum, per pair.....	1 00



No. 905.

Made of brass, covered with silk or morocco, come in three sizes, \$5 per pair.



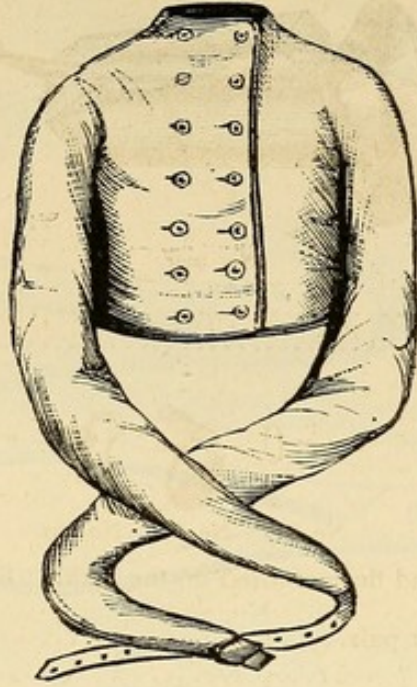
No. 901.

Conversation Tubes.

Brown silk, ivory mounts.....	\$10 00
" " horn "	5 00
Black " " "	5 00
" mohair, "	3 00
Brown leather, "	3 00

Many other styles kept in stock.

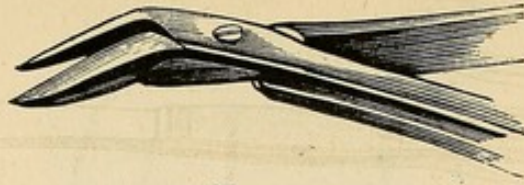
Ear Trumpets of any novel design can be made to order in the shortest time.



Strait-Jackets

made to order, and kept on hand, made of the strongest and most durable materials.

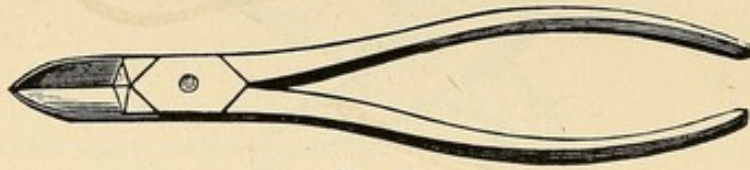
Prices.....\$15, \$20, and \$25



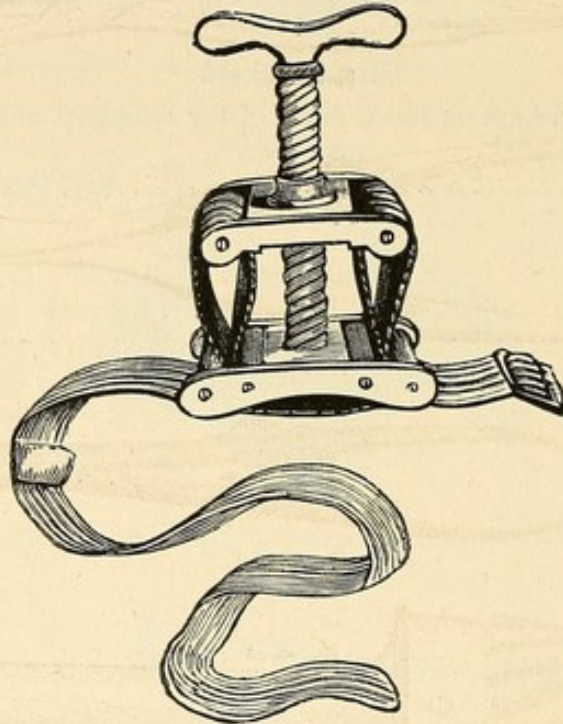
No. 24.



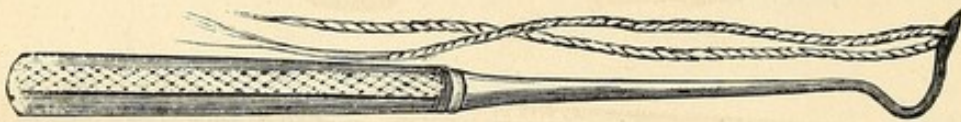
No. 25.



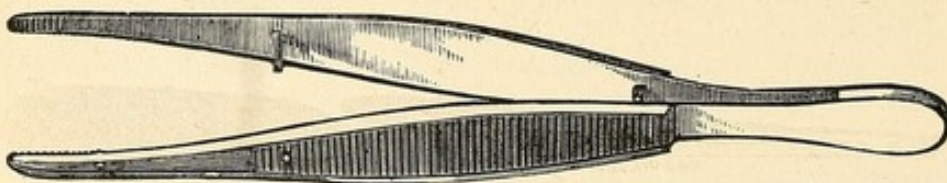
No. 26.



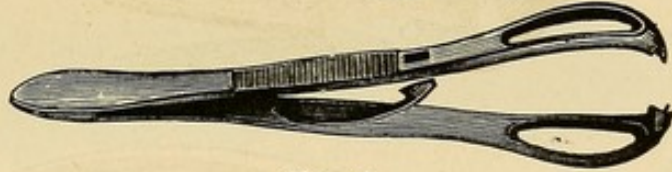
No. 28.



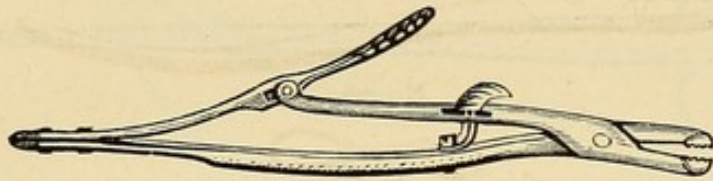
No. 40.



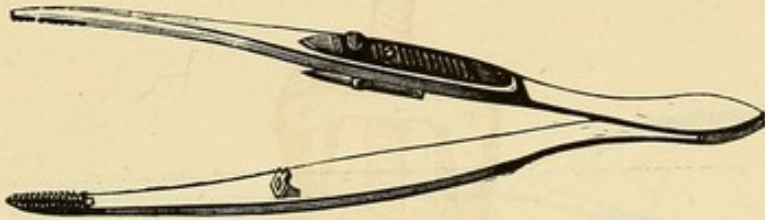
No. 47.



No. 48.



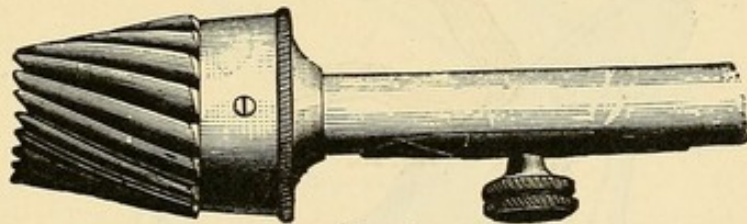
No. 50.



No. 51.



No. 52.



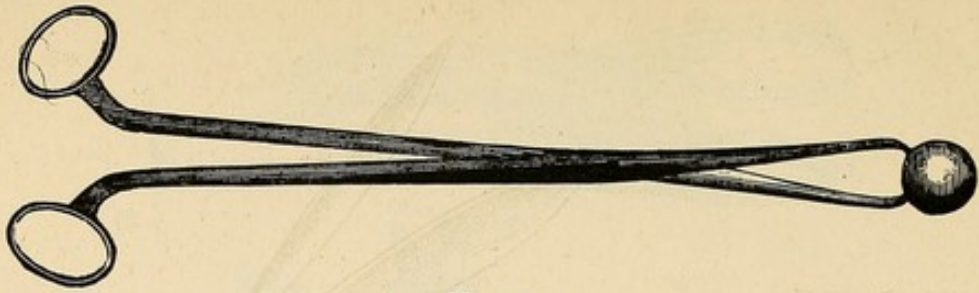
No. 58.



No. 71.



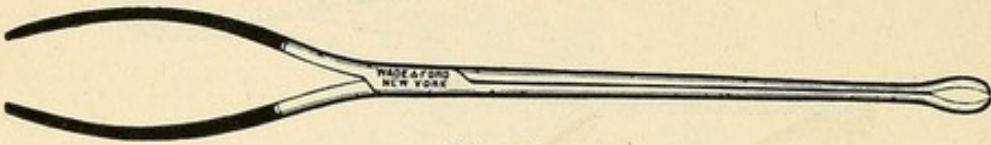
No. 71a.



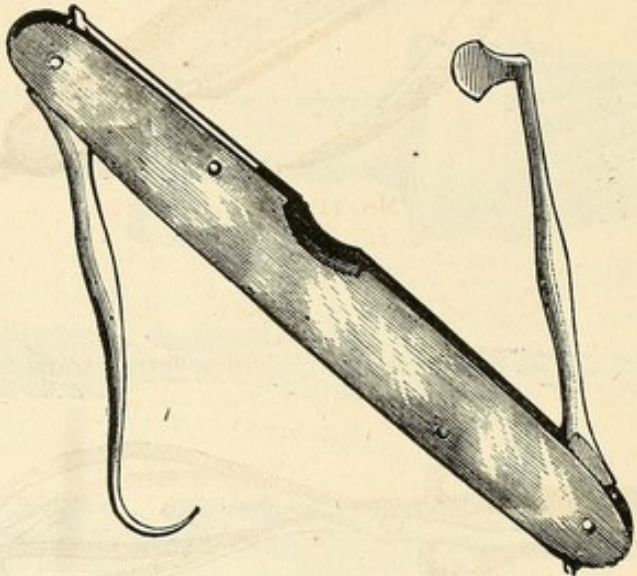
No. 74.



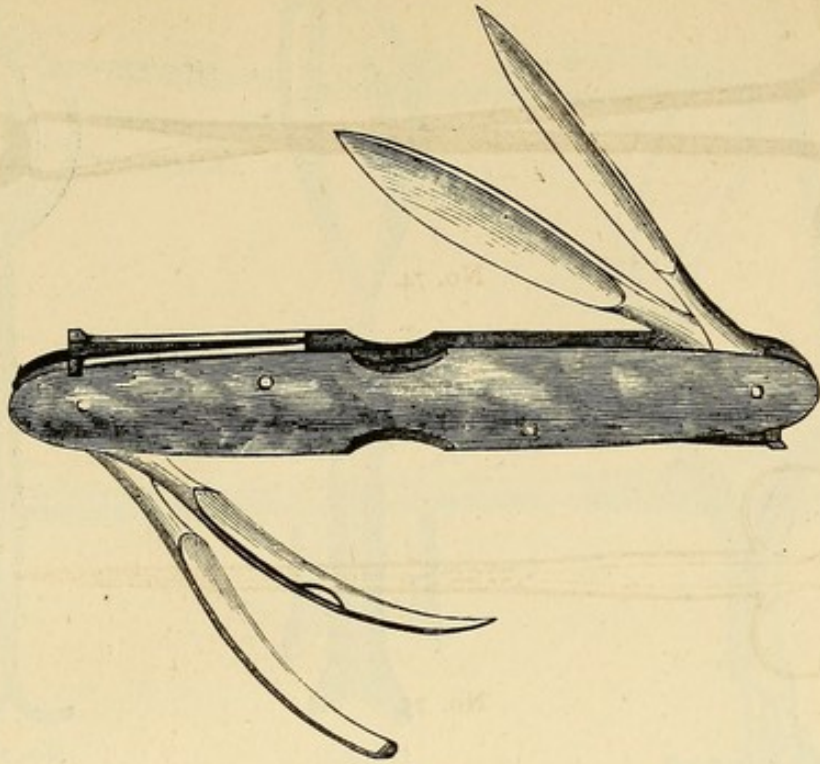
No. 75.



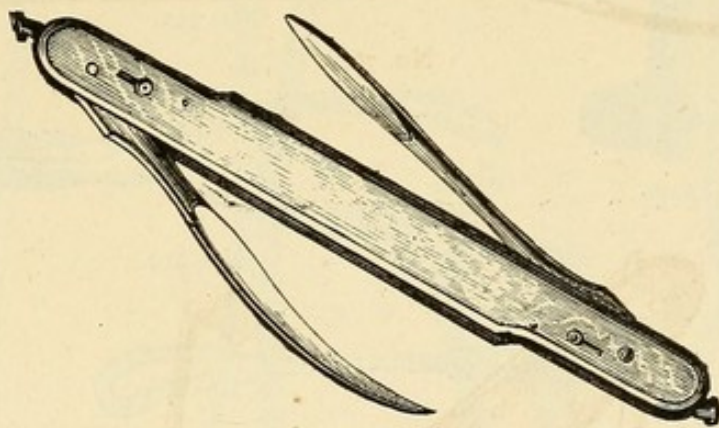
No. 76.



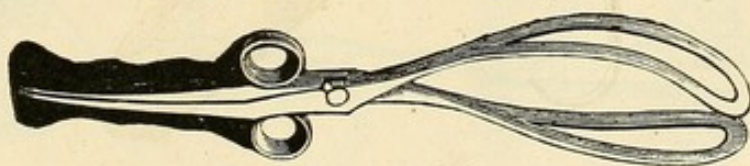
No. 113.



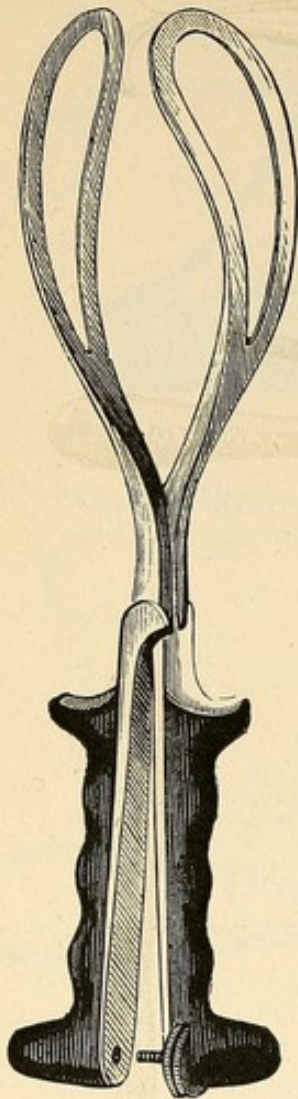
No. 113.



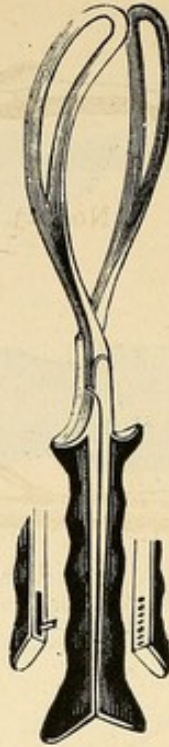
No. 114.



No. 201.



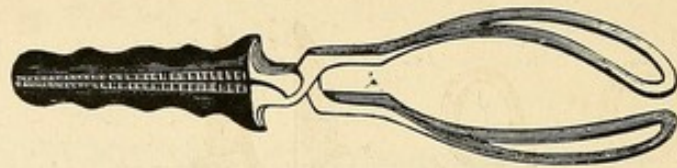
No. 204a.



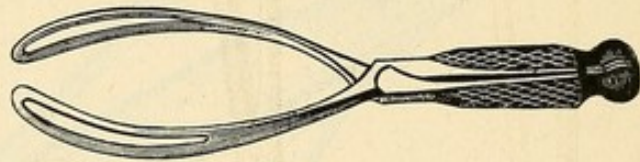
No. 204.



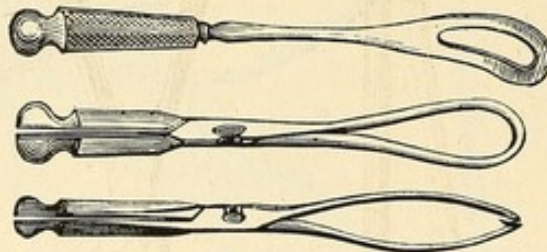
No. 209.



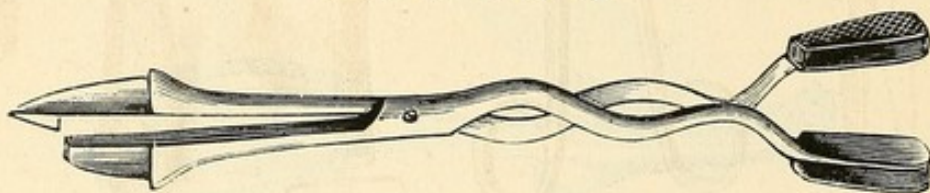
No. 211.



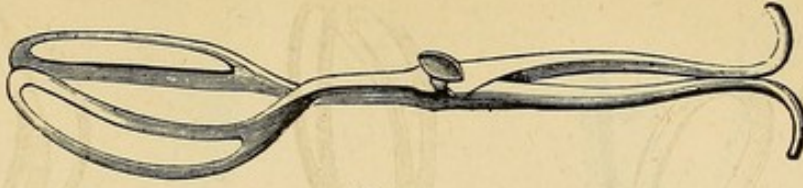
No. 212.



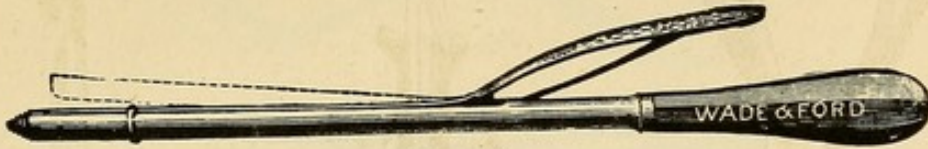
Nos. 220, 218, and 219.



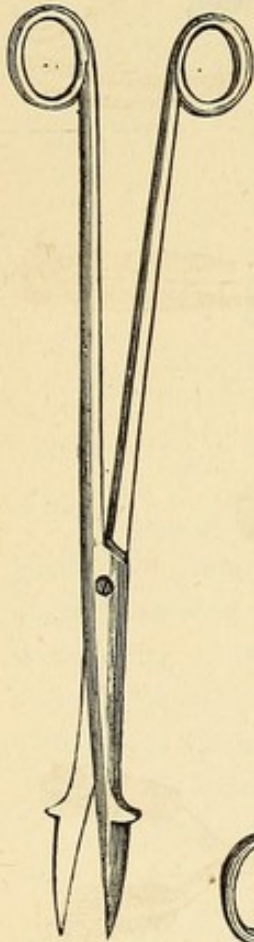
No. 221.



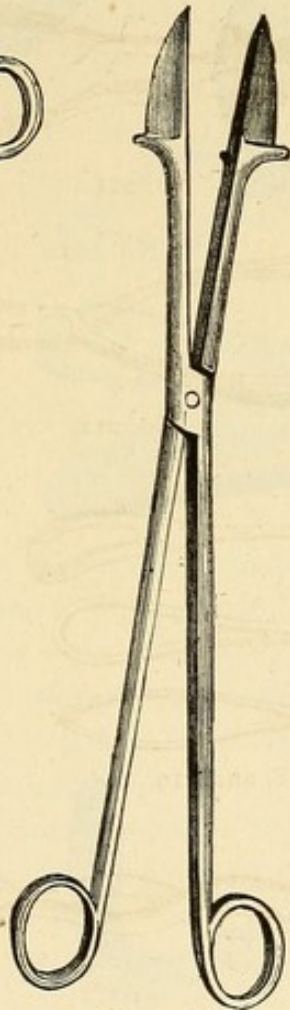
No. 223.



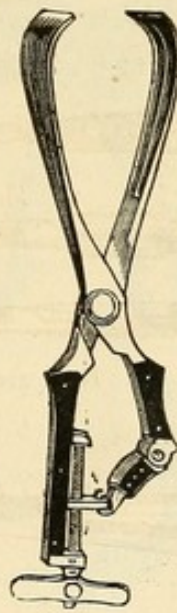
No. 236.



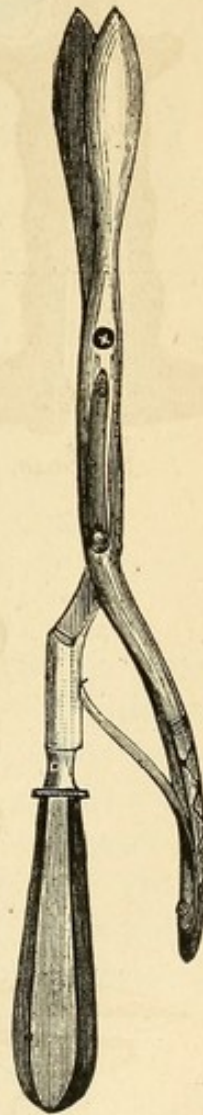
No. 237.



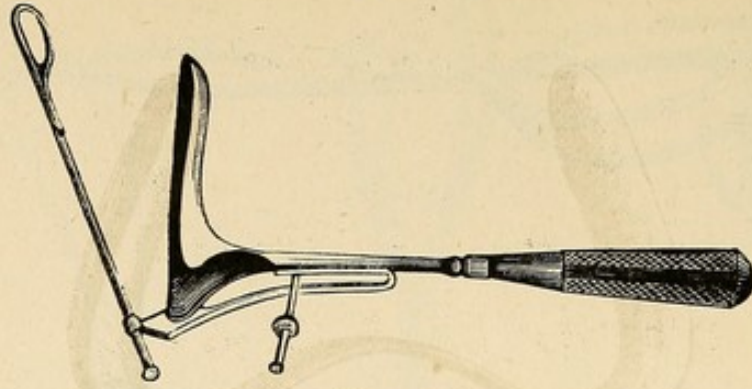
No. 238.



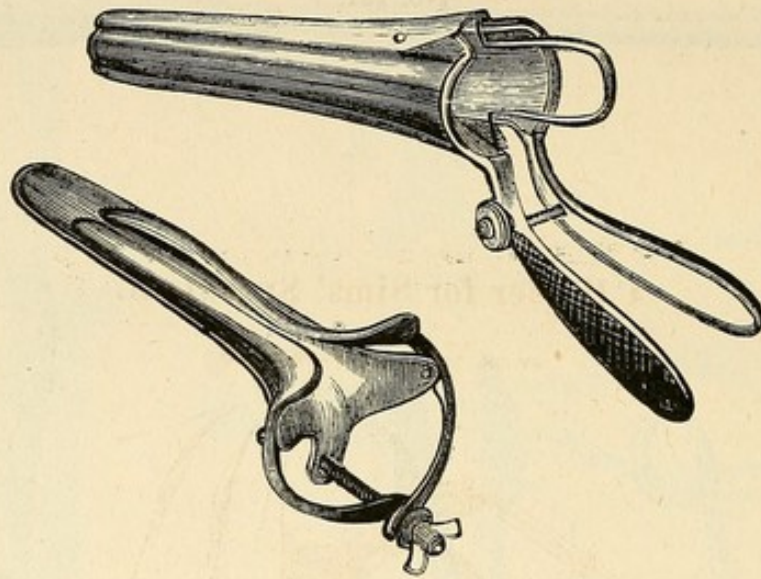
No. 244.



No. 251.

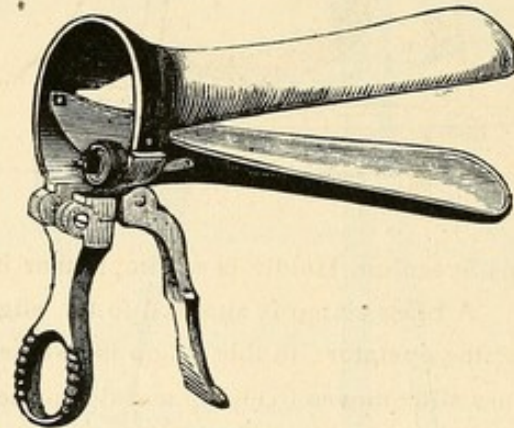


No. 277.

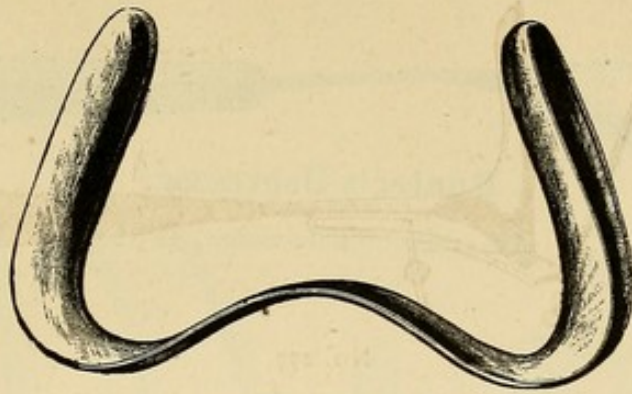


No. 278.

No. 282.



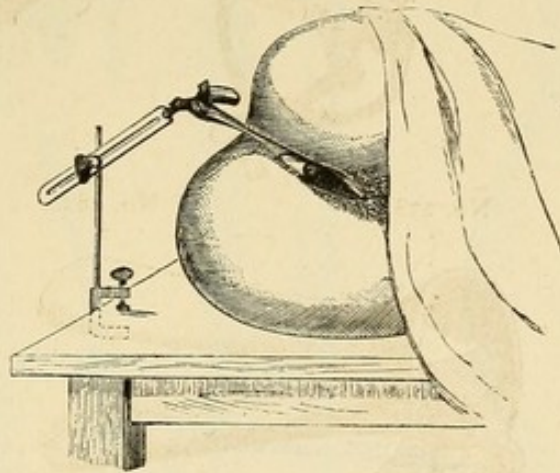
Nos. 279 and 280.



No. 281.

A Holder for Sims' Speculum.

BY DR. JAMES B. HUNTER, M.D.



The plan of this Speculum Holder is so simple that it will be comprehended at a glance. A brass clamp is attached to the edge of the table on the left-hand side of the operator; in this clamp is fastened a steel rod ten inches long. A brass slide moves freely up and down the rod and also revolves upon it, being made fast at any point by a screw. In the upper part of this slide is a second screw passing through a slot in the arm. The arm is also of brass and terminates in a curve or hook, against which rests the Speculum blade, (the one not in use.) Speculum No. 281 has the proper curve for the holder.

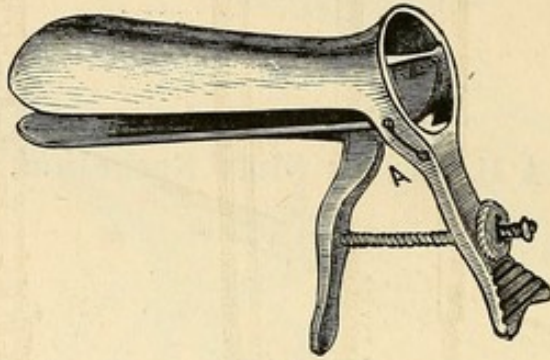
For full description, see Medical Record, No. 114, p. 431.

Price, \$6, nickel-plated.

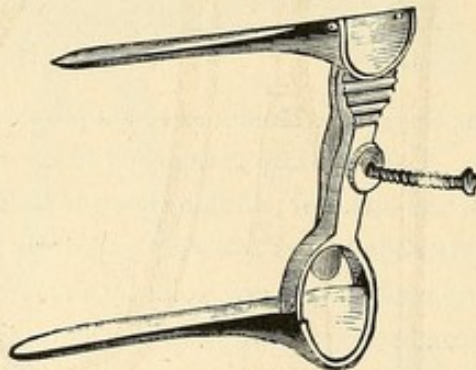


Hunter's Depressor.

Also made double ended, \$2.50.

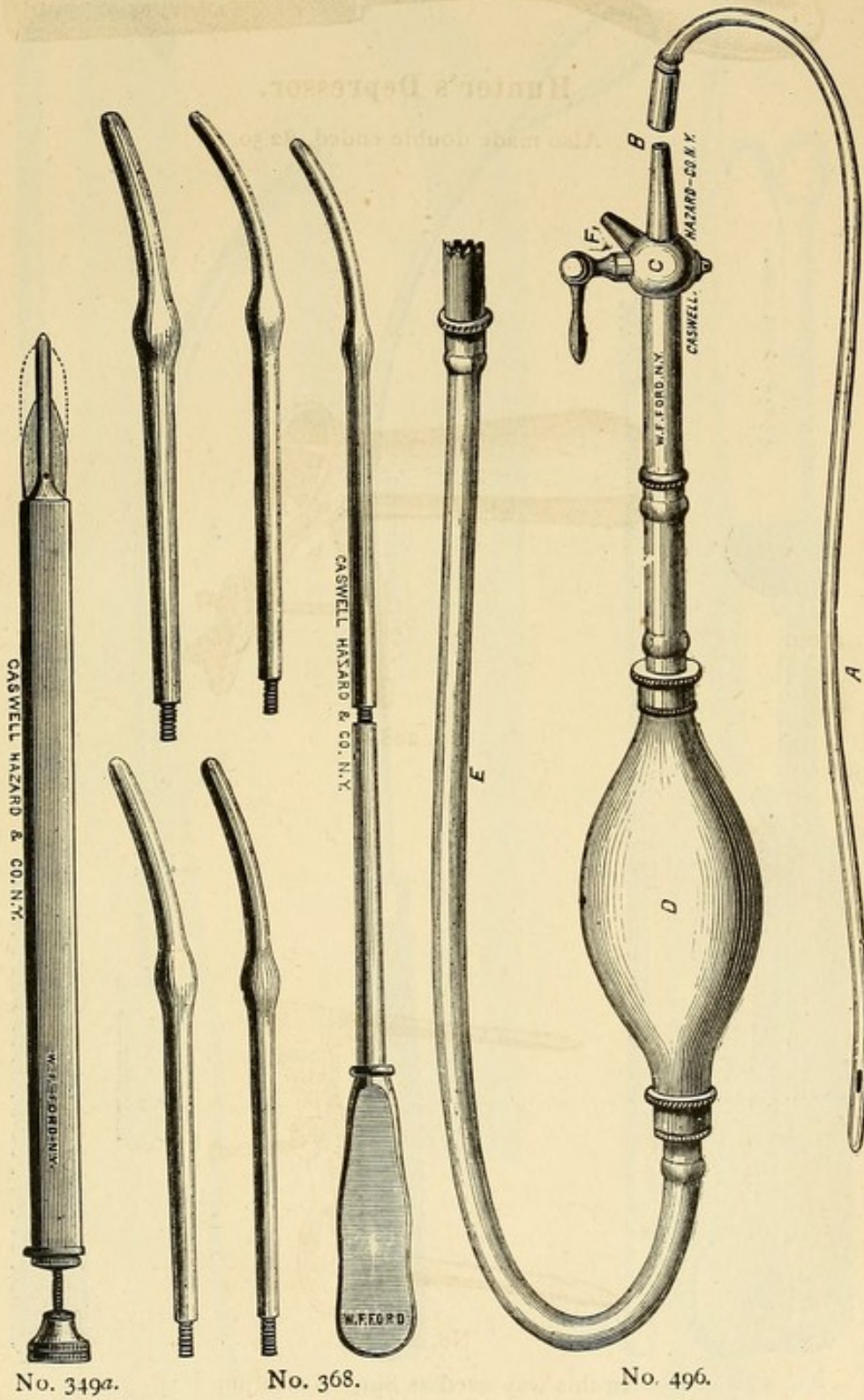


No. 288.



No. 288.

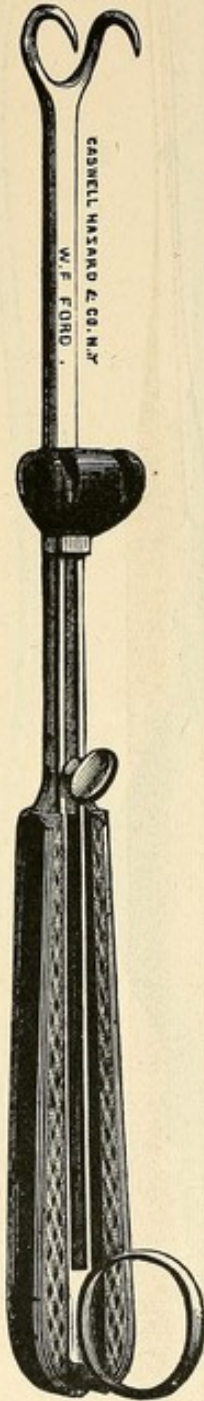
In this way used as Sims' Speculum.



No. 349a.

No. 368.

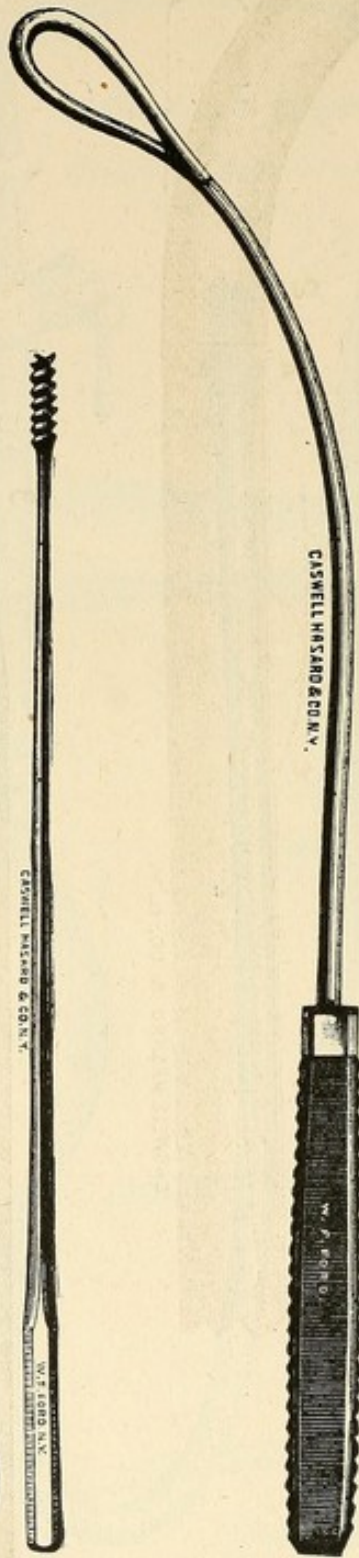
No. 496.



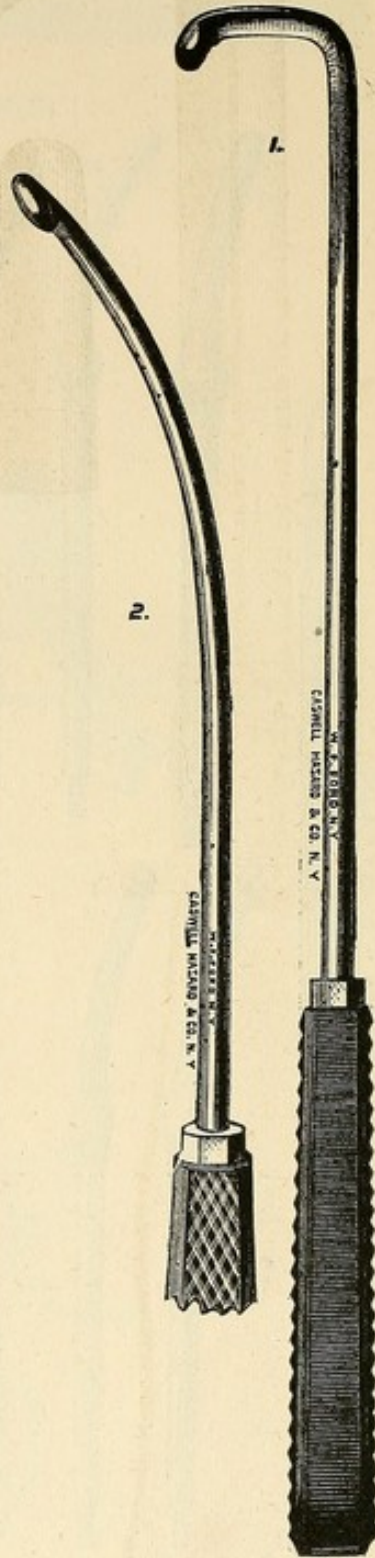
No. 436.



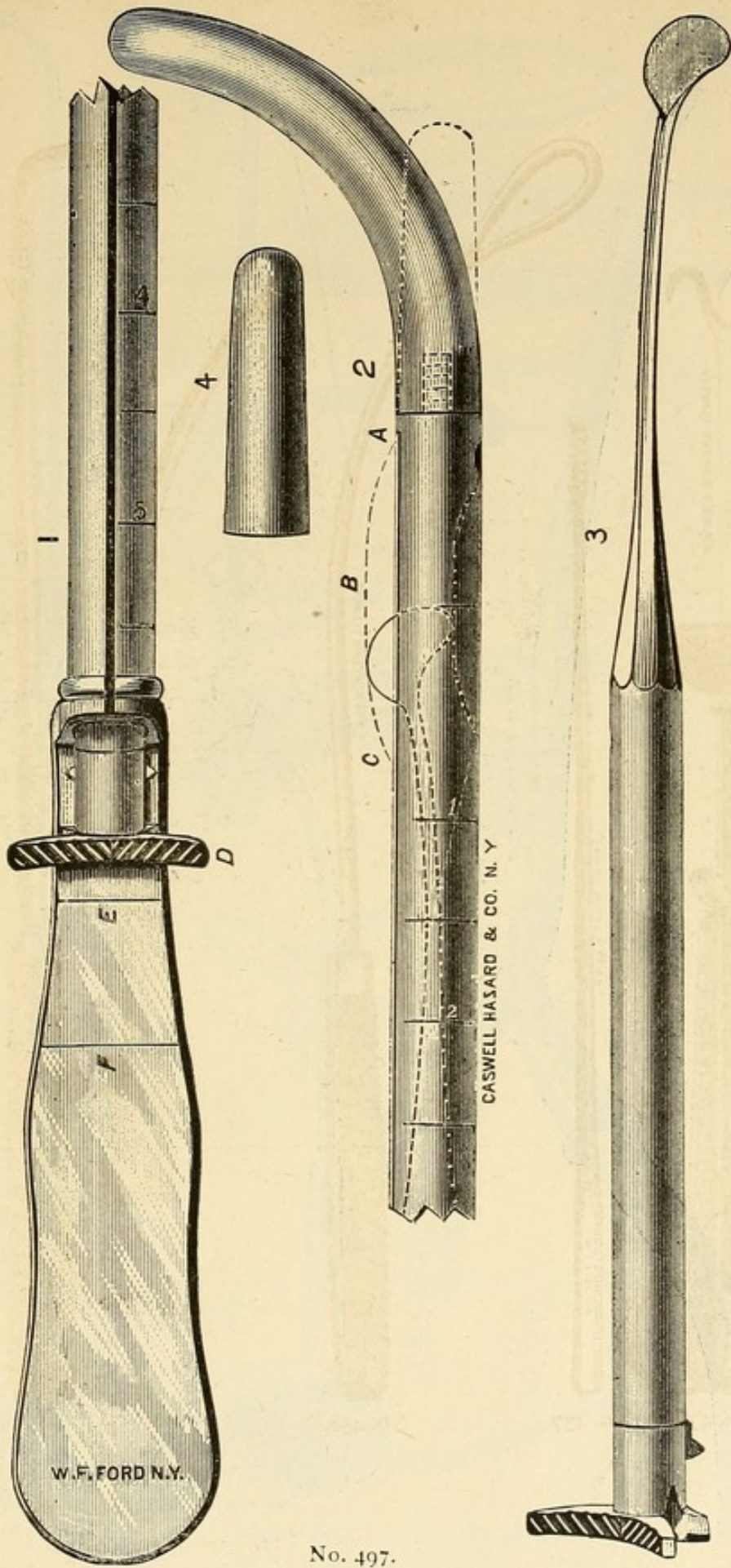
No. 437.



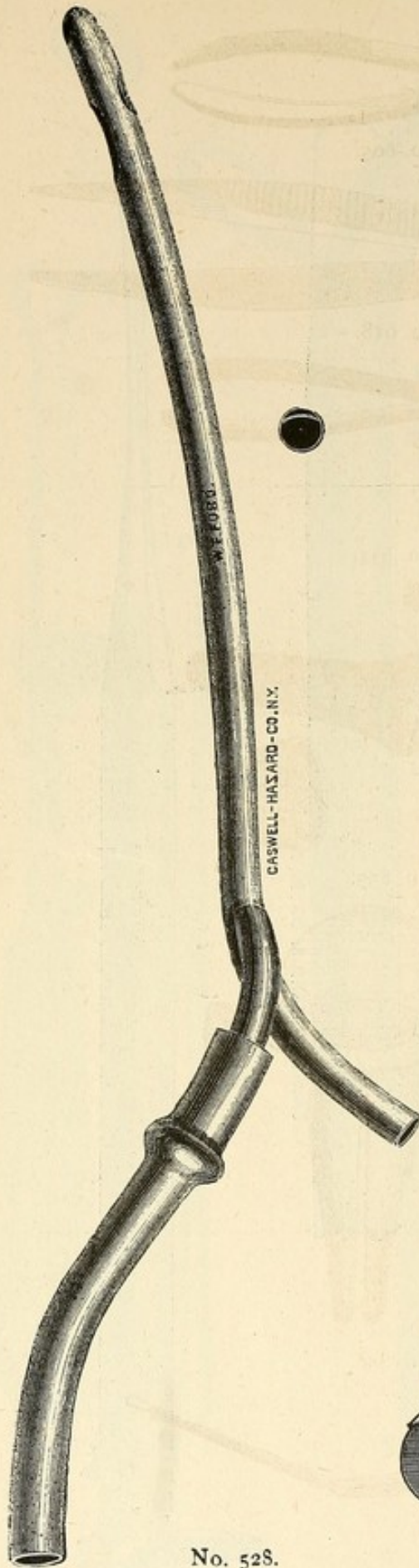
No. 438.



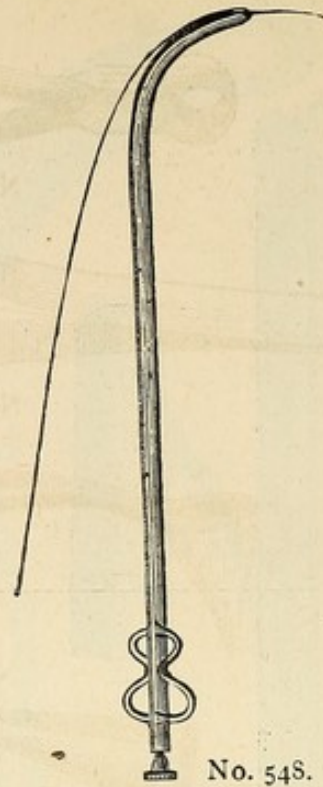
No. 439.



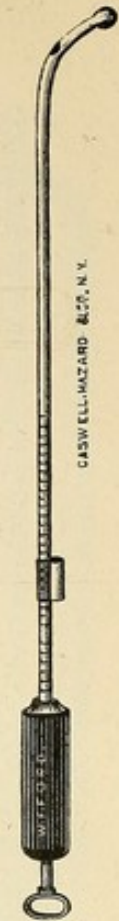
No. 497.



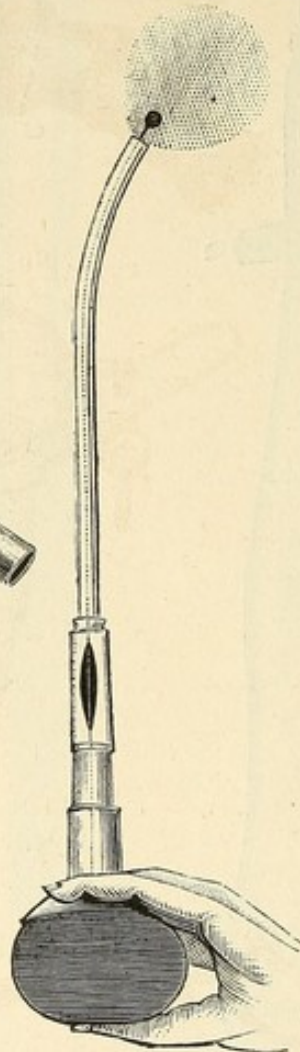
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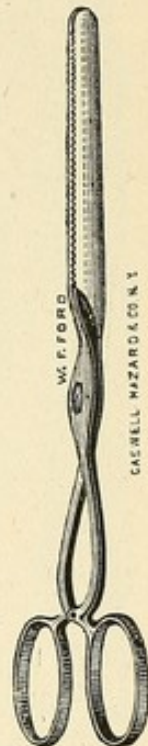
No. 548.



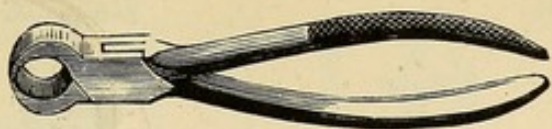
No. 549.



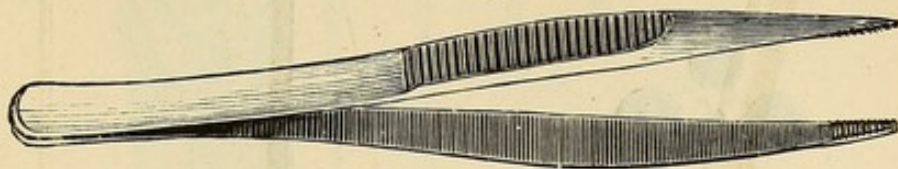
No. 558.



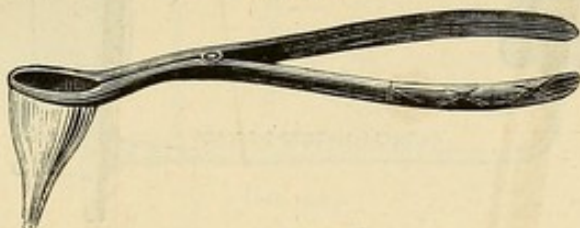
No. 559.



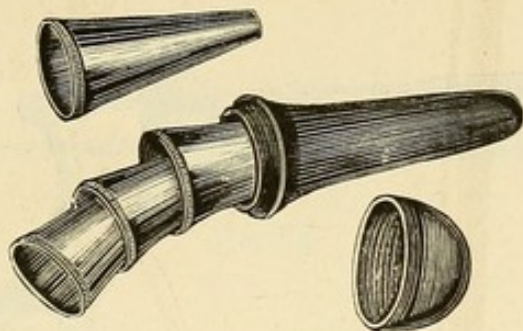
No. 605.



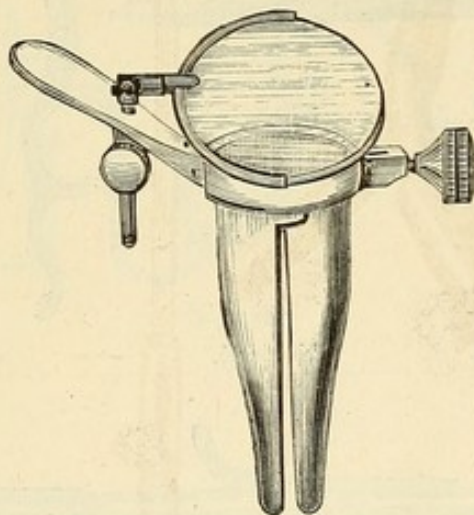
No. 618.



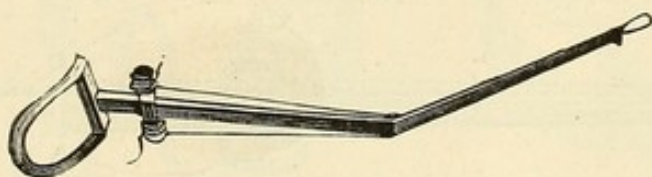
No. 851.



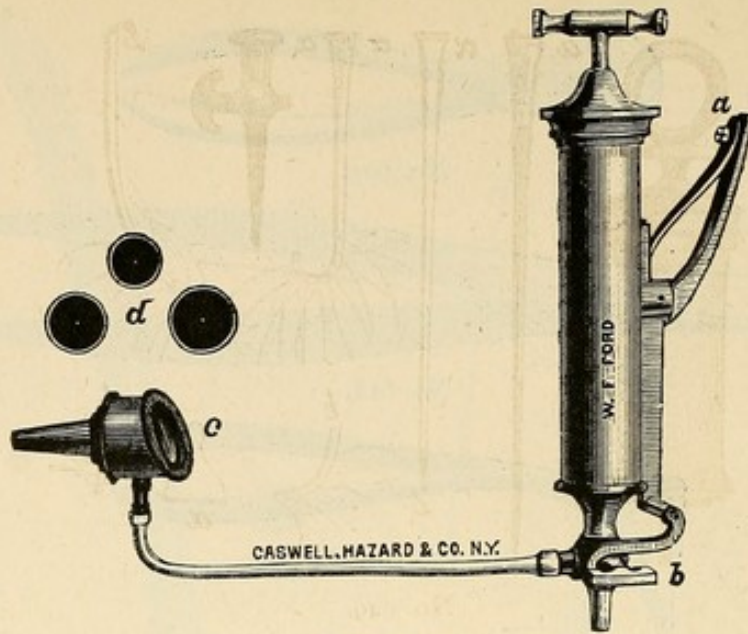
No. 853.



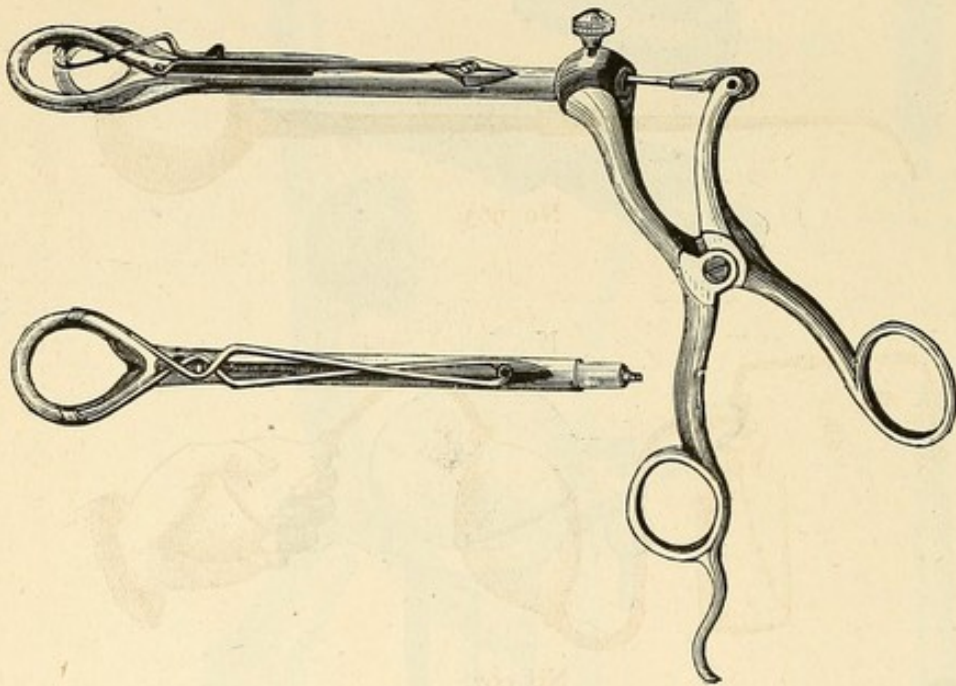
No. 856.



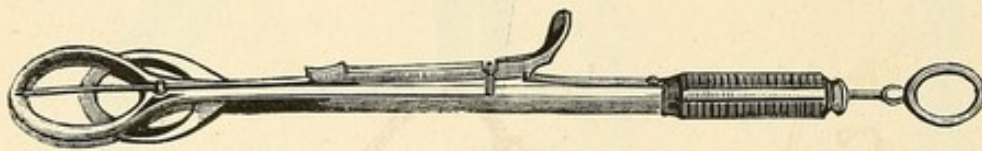
No. 886. (Plain. \$2.50.)



No. 915a.



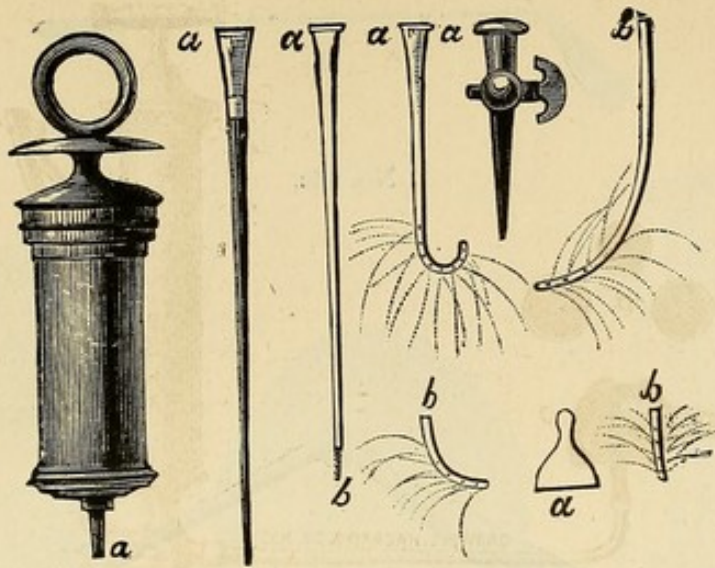
No. 926.



No.



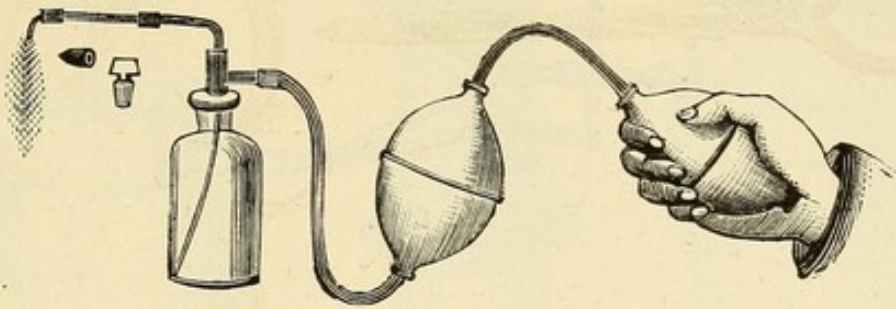
No. 929.



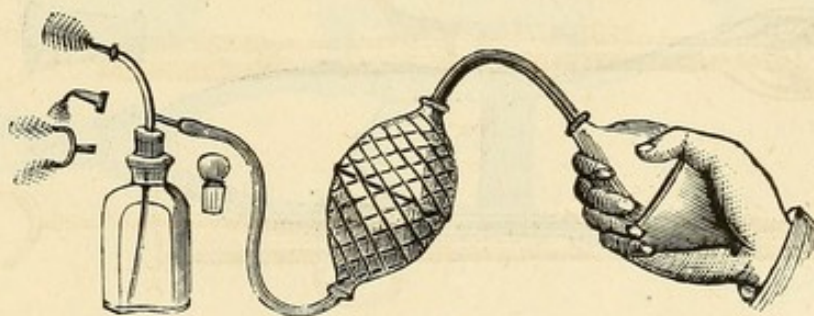
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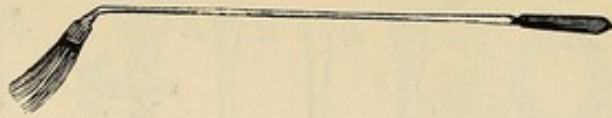
No. 963.



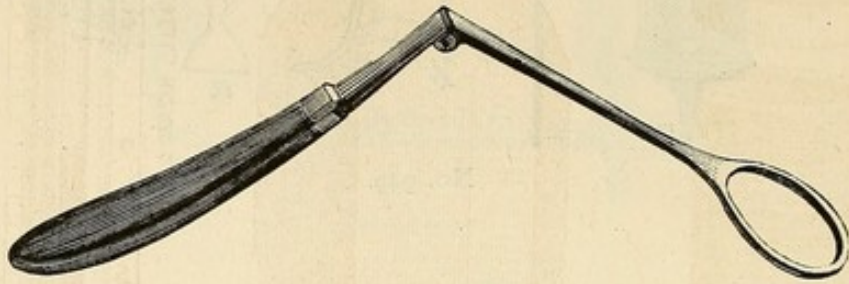
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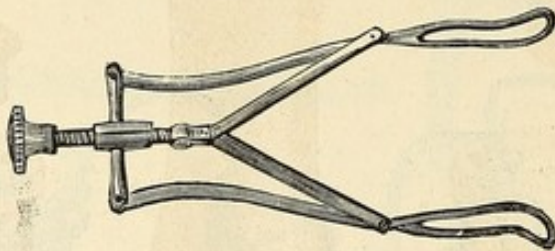
No. 968.



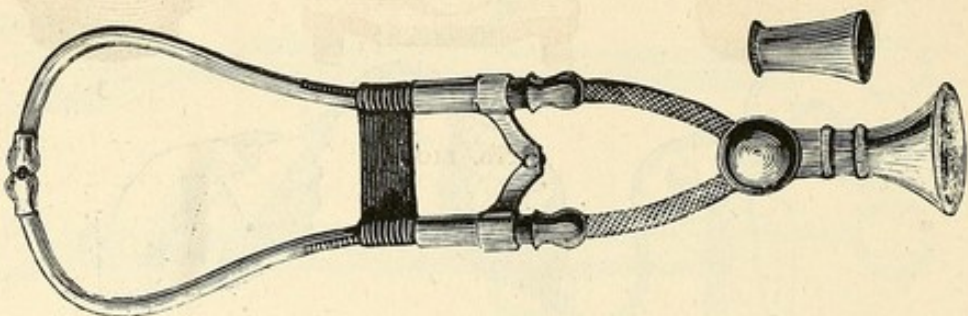
No. 982.



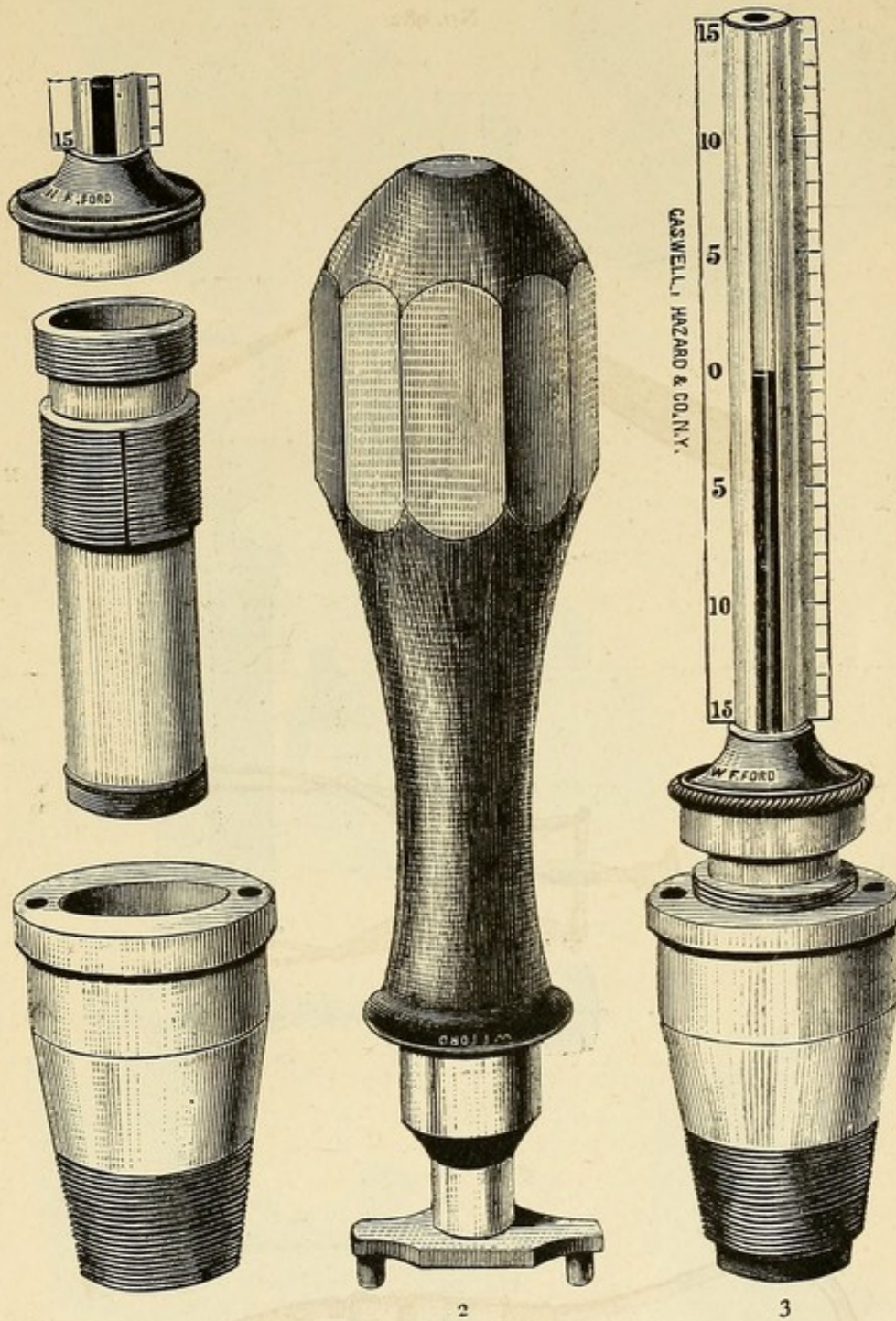
No. 986.



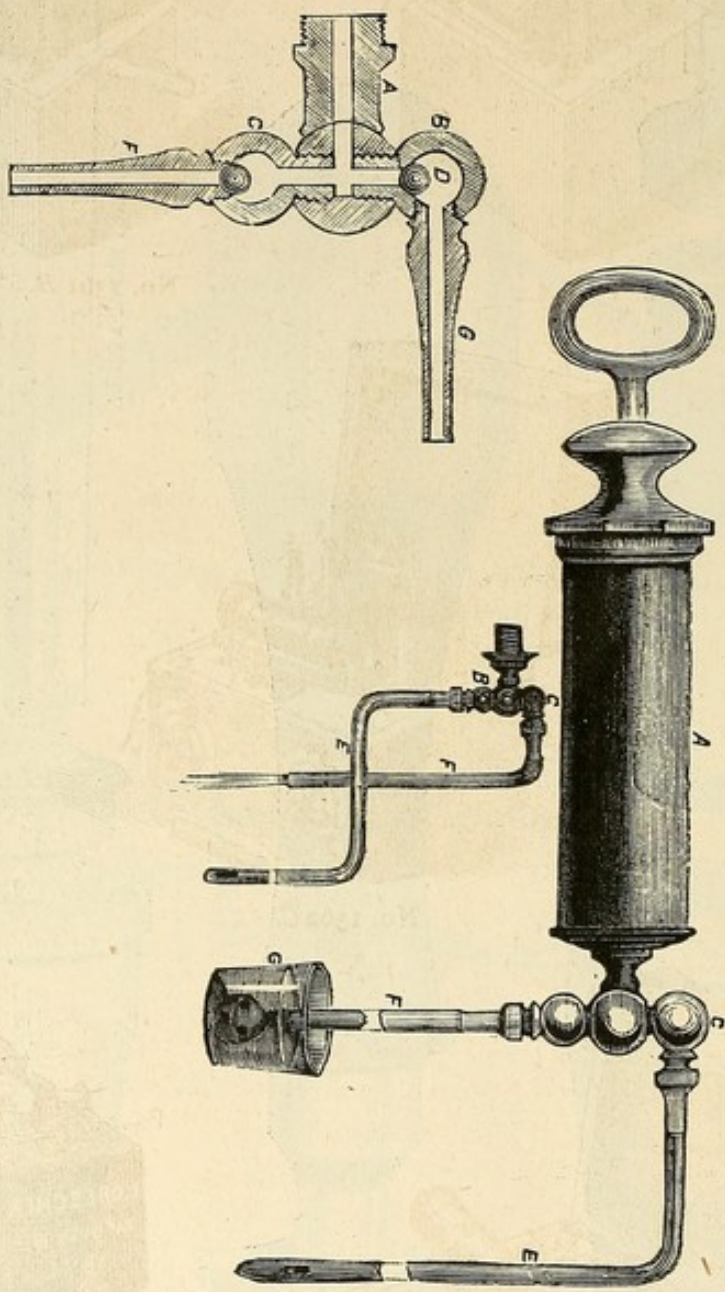
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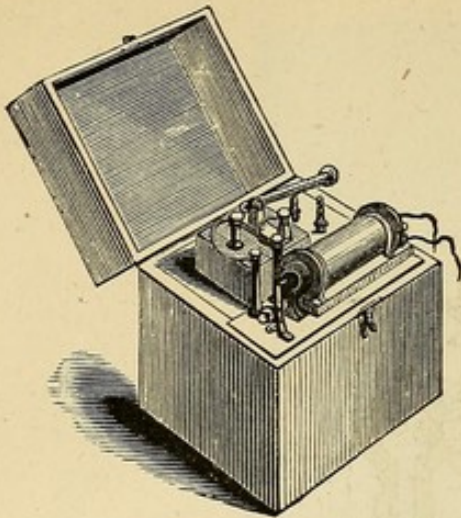
No. 1070.



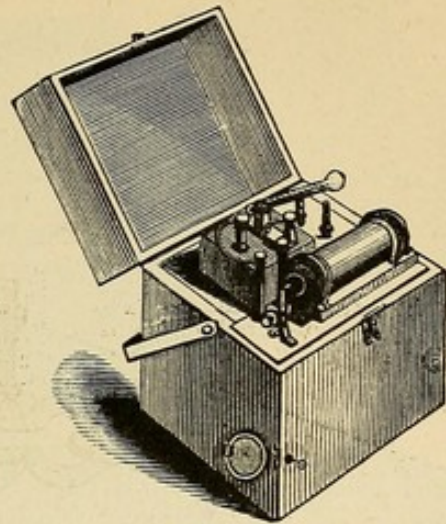
No. 1105a.



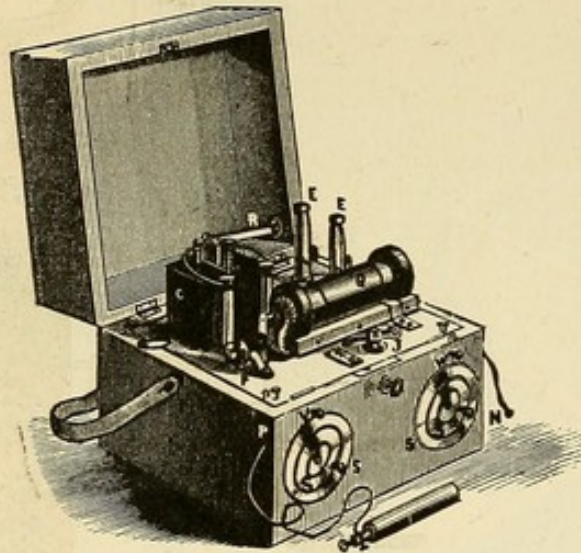
No. 1205.



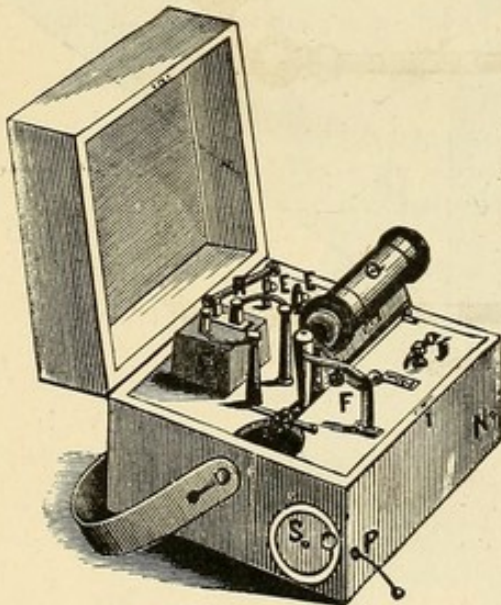
No. 1360 A.



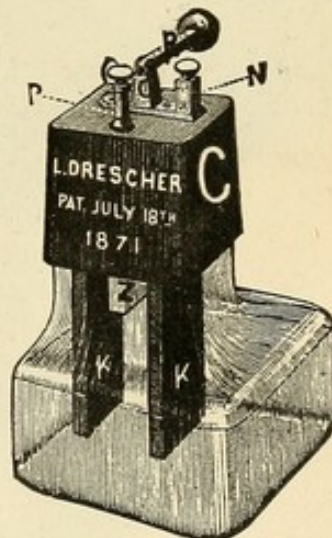
No. 1361 B.



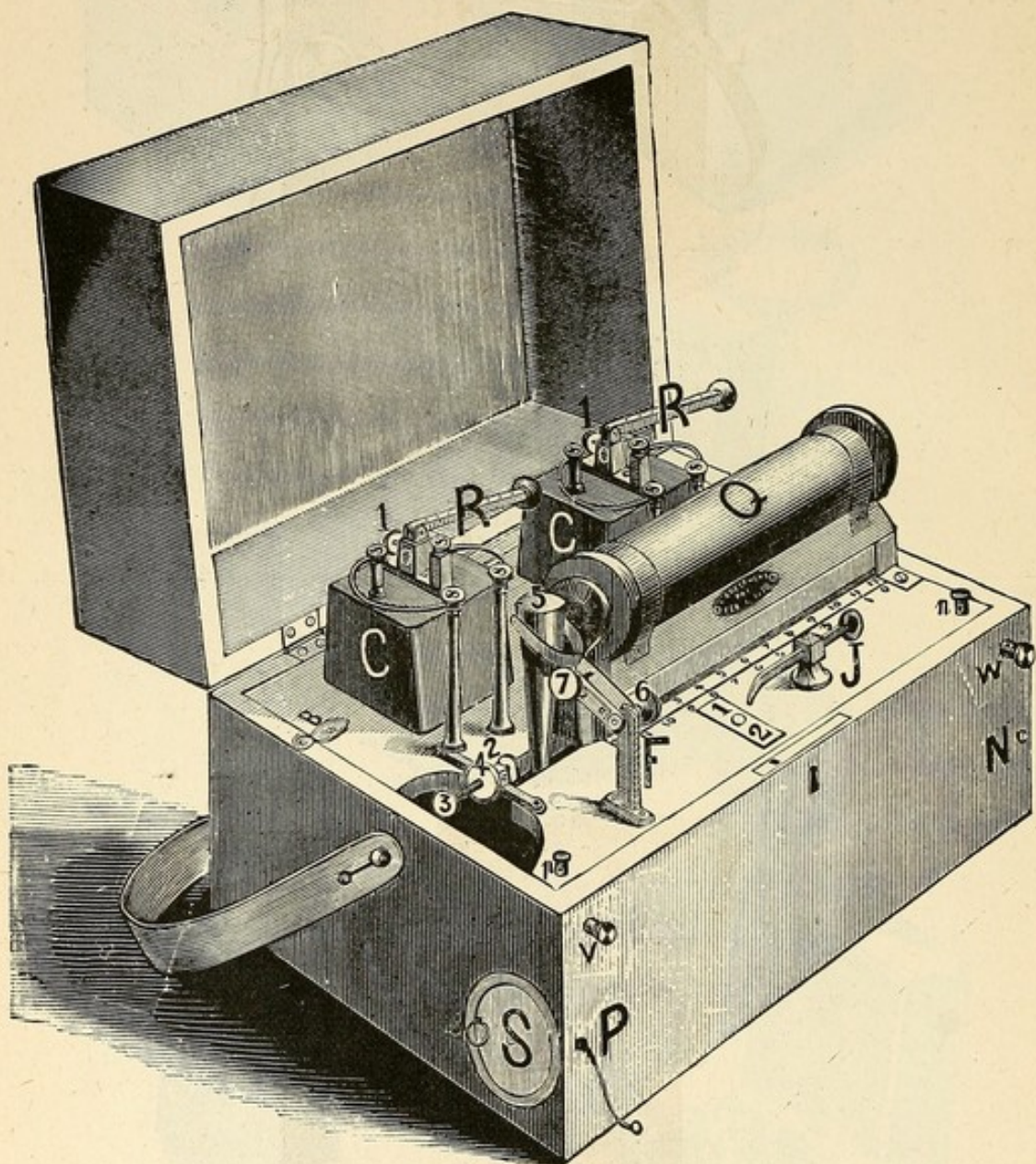
No. 1362 C.



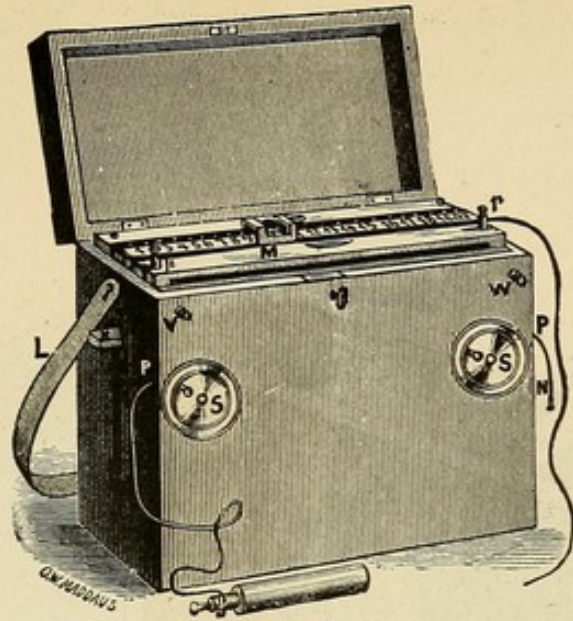
No. 1364 D.



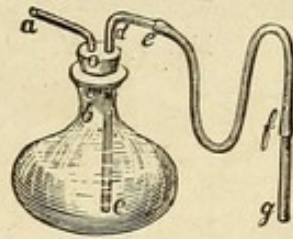
No. 1367 F.



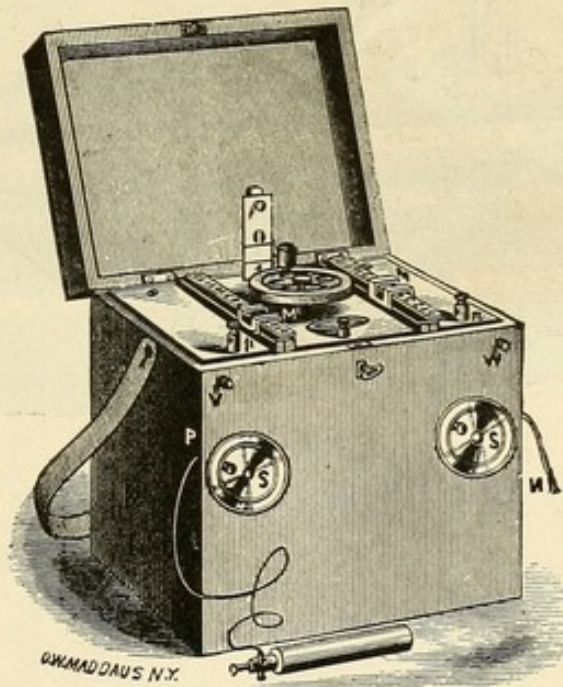
No. 1365 E.



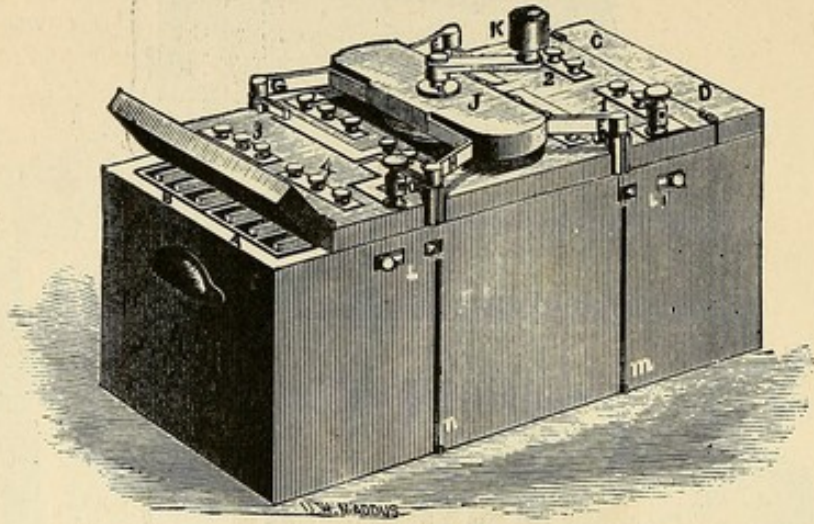
No. 1381 G.



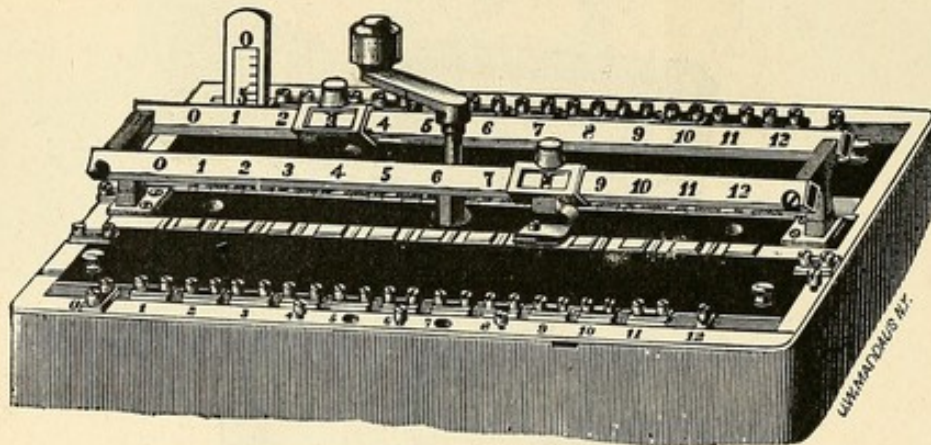
No. 1383 H.



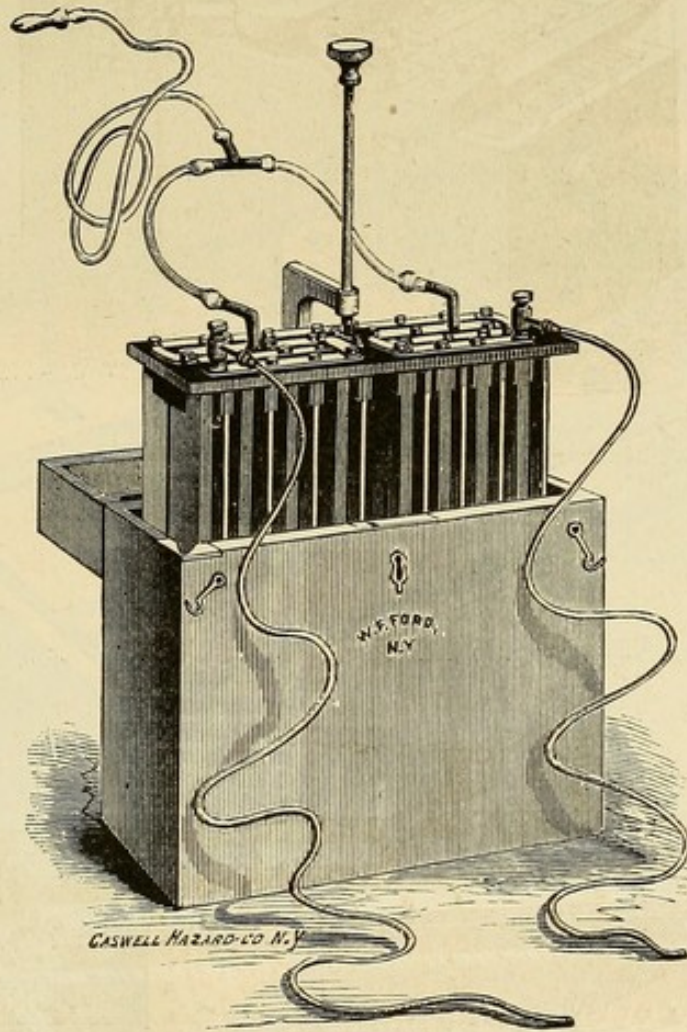
No. 1384 I.



No. 1387 K.

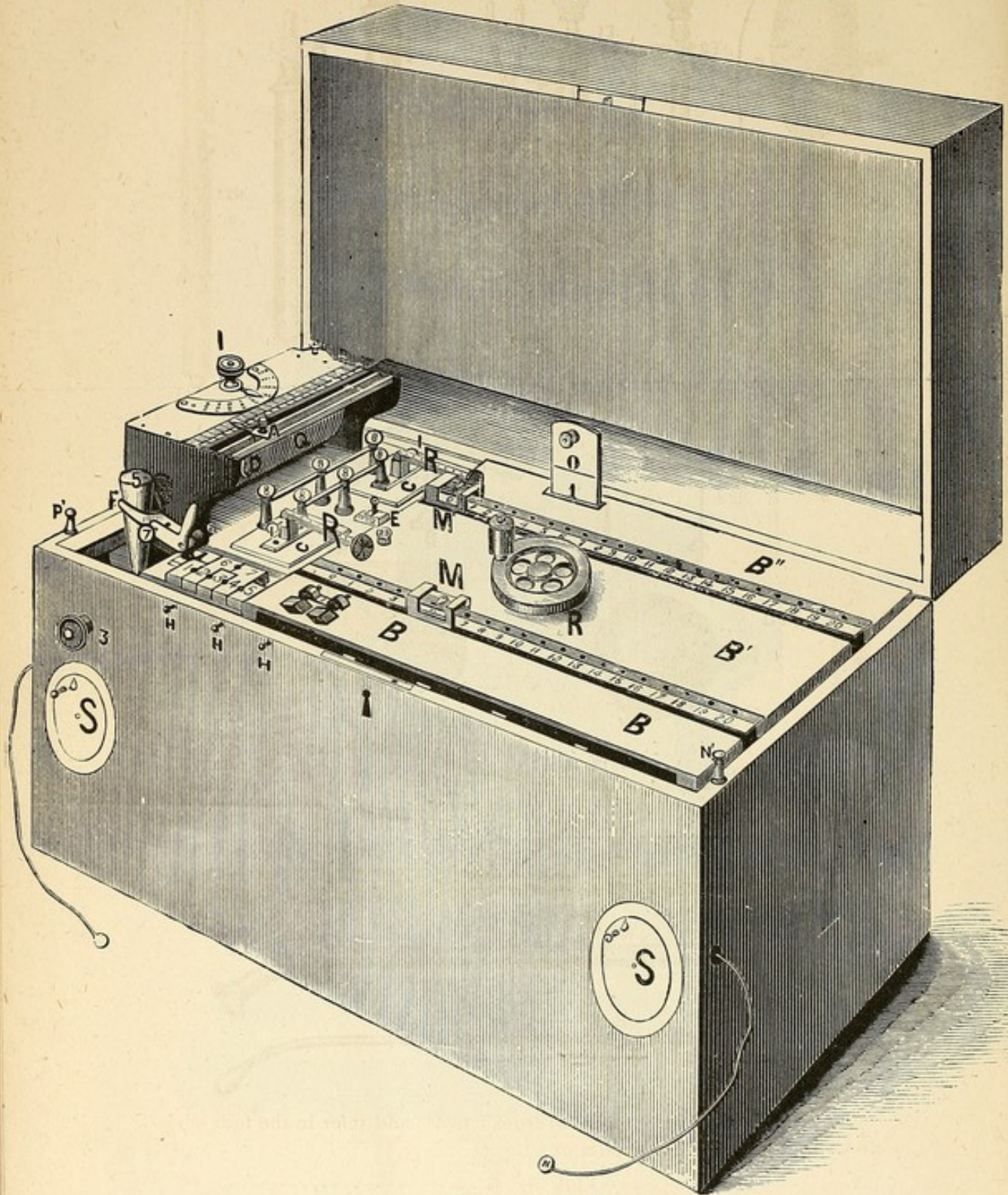


No. 1389 L.



No. 1390.

The Galvano-Faradic Machine, with Rheostatic Coil.



No. 1391a, Fig. M.

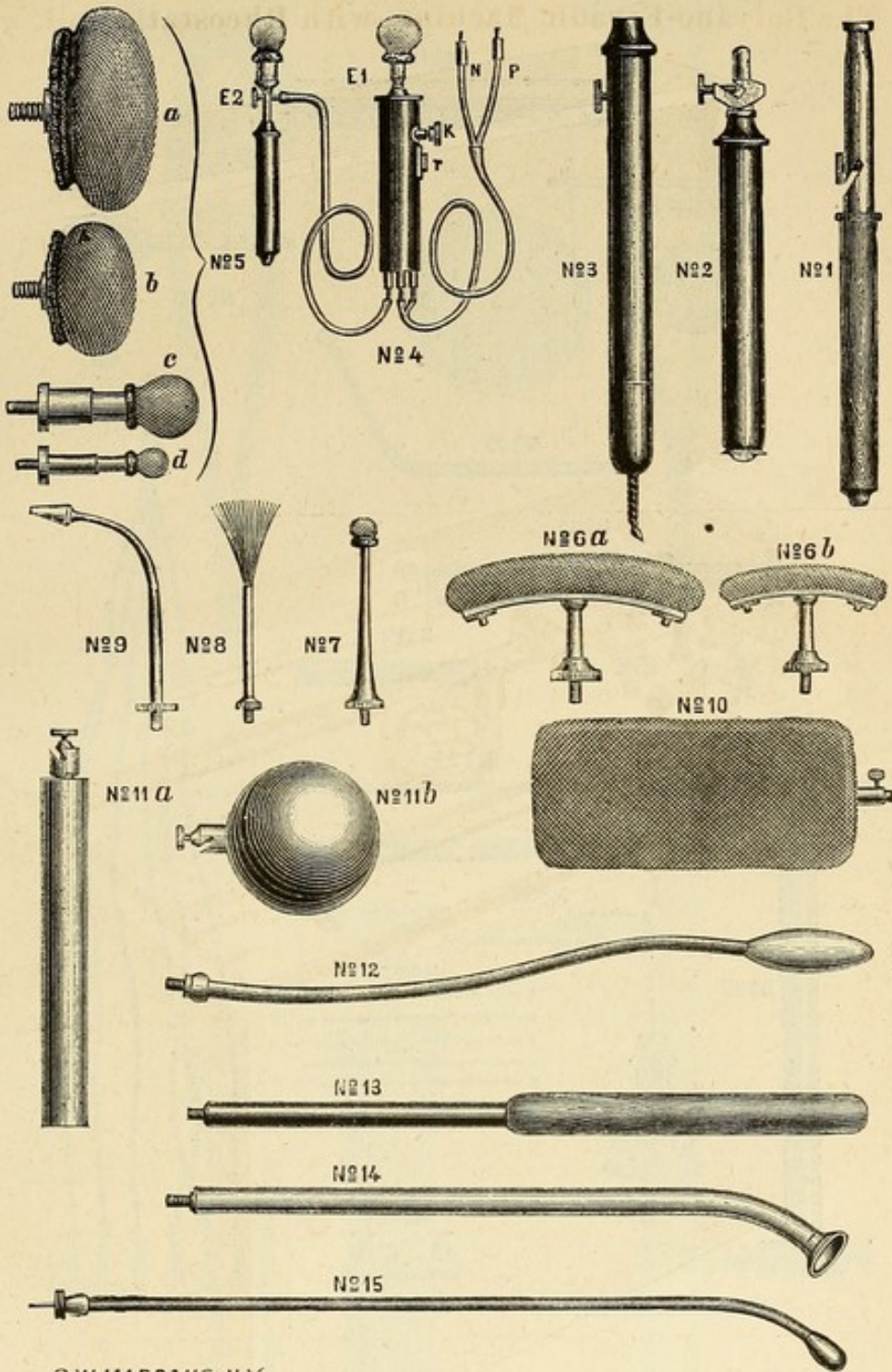
THIS instrument is a combination of the Rheostatic-Electro-Magnetic Machine, No. 1381 G, with the Forty-cell Galvanic Battery and Rheotrop, Rheotom, and Galvanoscope.

NOTE.—These last three auxiliary apparatus (which are not illustrated in the cut) are separately mounted on a board, and placed in front of the instrument, when connected therewith.

The *rheostatic coil* generates not only the *faradic currents* with unequaled accuracy, but it can also be inclosed in the *galvanic circuit*, for the purpose of generating a current, as a *certain number of cells* and (if this were possible) a *fractional part of one more cell* would do; and this object is practically realized with the use of the rheostatic coil.

This instrument *generates* consequently not only *all electrical currents*, but also *all modifications*, which are of therapeutical and diagnostic value.

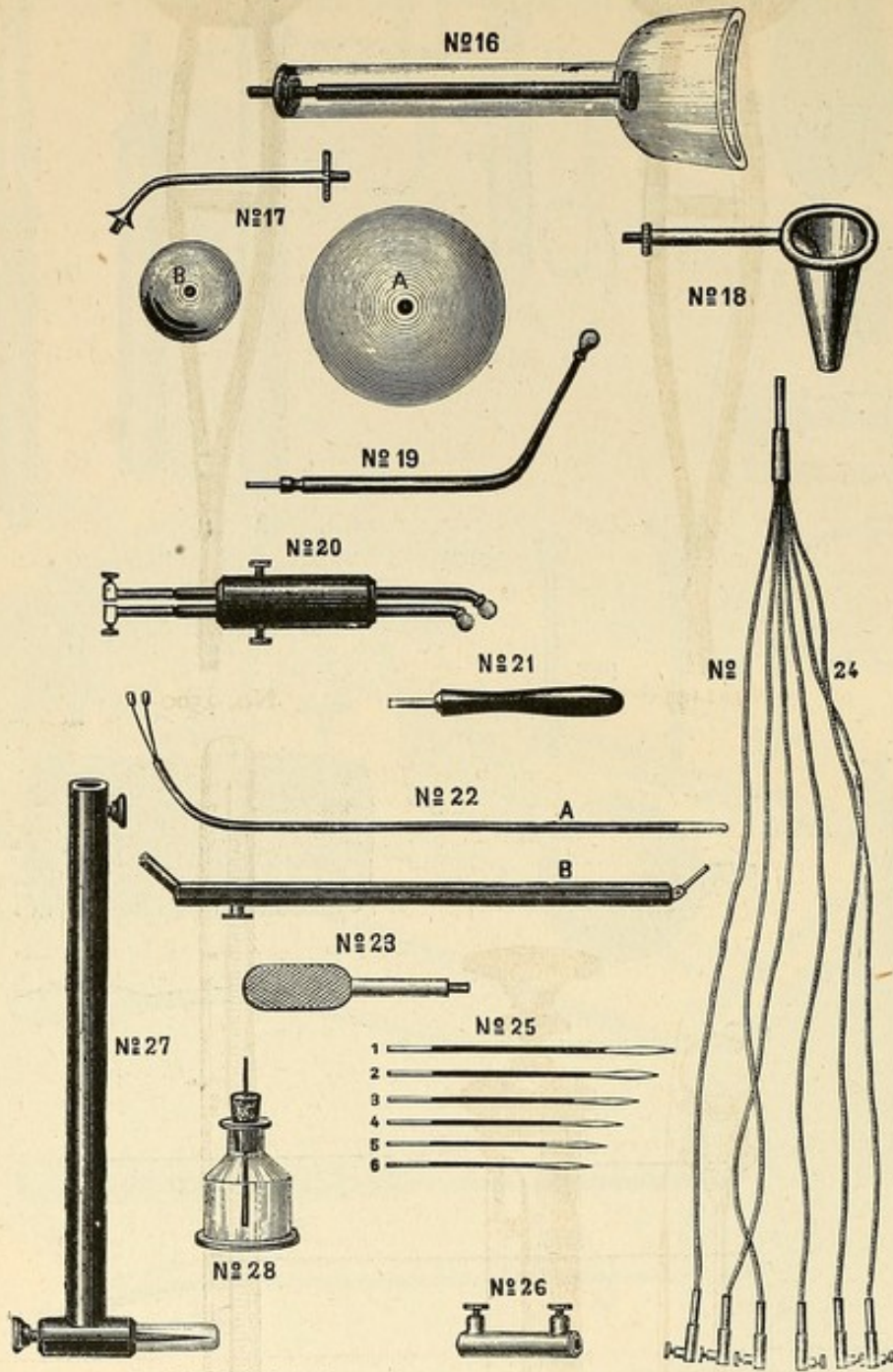
It is highly finished—the whole being made of polished hard rubber and in handsome case. Price, \$250.



O.W.MADDAUS N.Y.

THESE Electrodes are numbered from 1 to 15, and refer in the following manner to numbers in the catalogue:

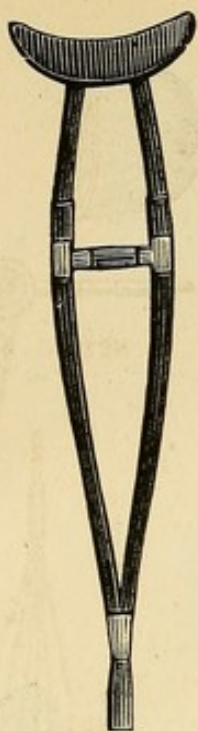
1.....	1395	9.....	1407
2.....	1396	10.....	1408
3.....	1397	11.....	1410
4.....	1398	12.....	1412
5.....	1399	13.....	1413
6.....	1404	14.....	1415
7.....	1405	15.....	1416
8.....	1406		



O.W. MADDAUS N.Y.

THESE Electrodes are numbered from 16 to 28, and refer in the following manner to the numbers of the catalogue :

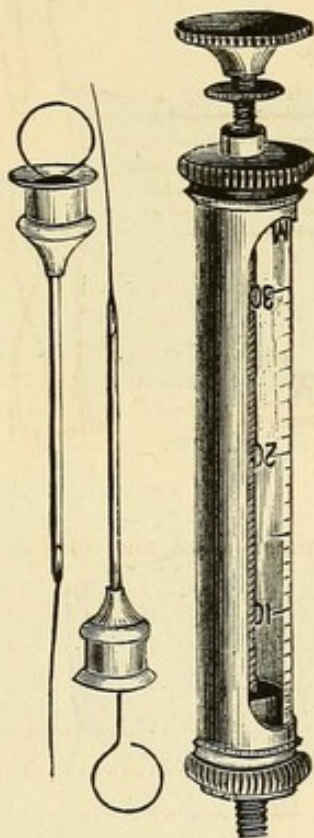
16.....	I418	23.....	I427
17.....	I419	24.....	I428
18.....	I420	25.....	I430
19.....	I421	26.....	I432
20.....	I422	27.....	I433
21.....	I423	28.....	I434
22.....	I425		



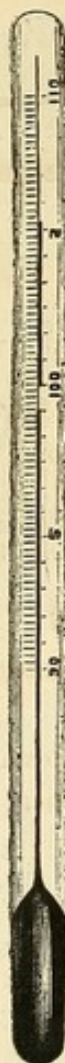
No. 1494



No. 1500



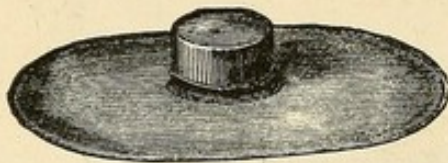
No. 1508.



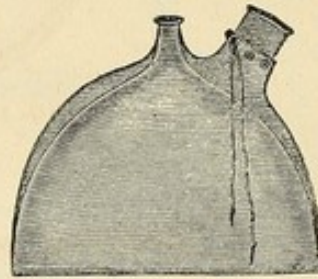
No. 1636.



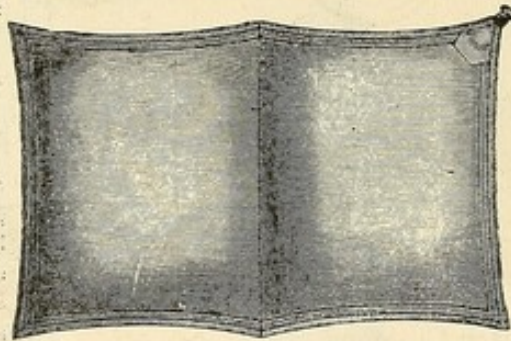
No. 1609. Ice Bag.



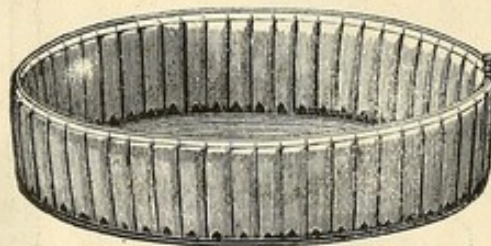
No. 1625. Ice Cap.



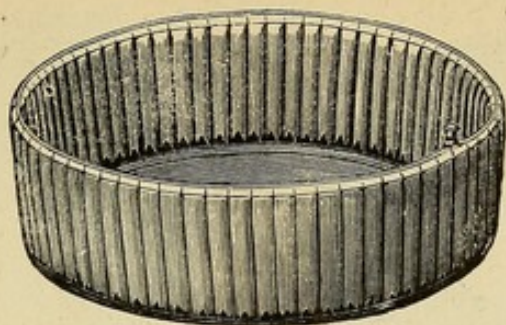
No. 1626. Ice Cap.



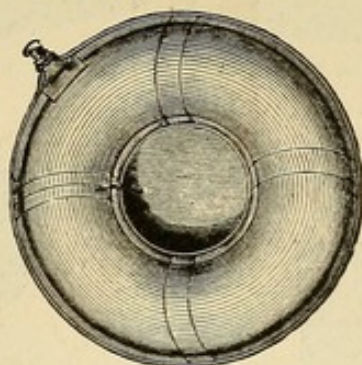
No. 1644. Air-Pillow.



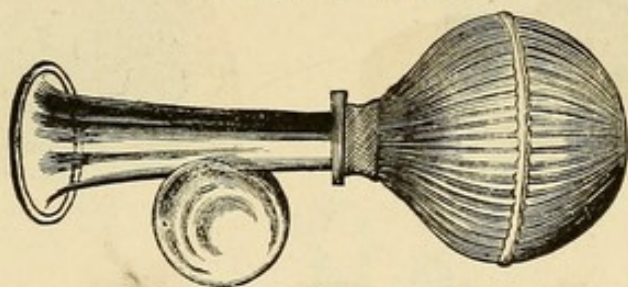
No. 1648. Bath Tub.



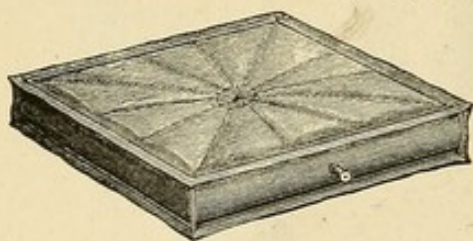
No. 1649. Bath Tub.



No. 1650. Bed Pan.



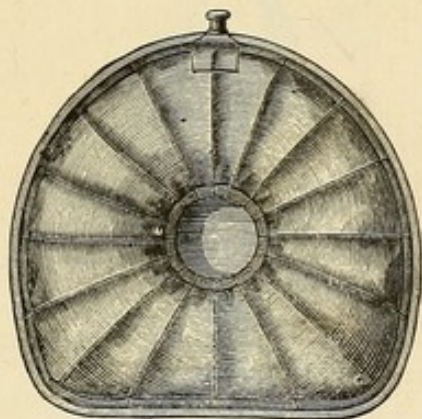
No. 1652. Breast Pump.



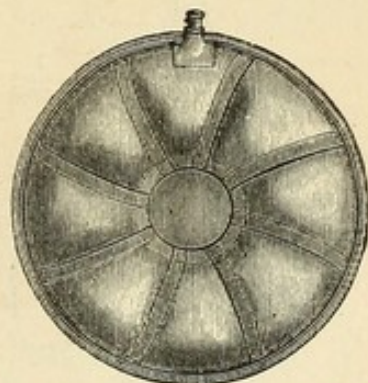
No. 1654. Carriage Cushions.



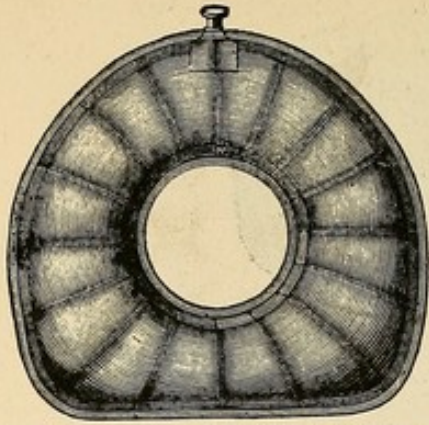
No. 1666. Chair Cushions.



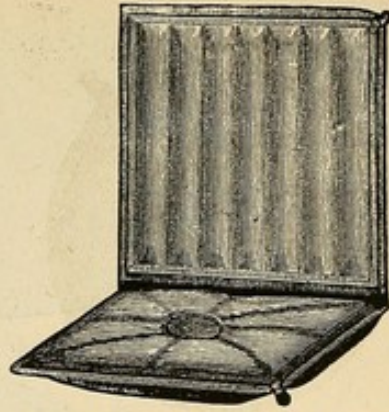
No. 1656. Chair Cushions.



No. 1657. Chair Cushions.



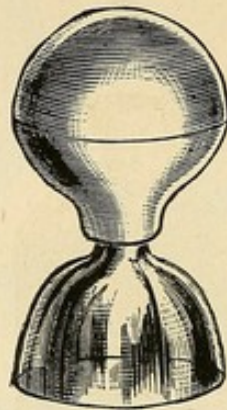
No. 1659. Hospital Chair Cushion.



No. 1660. Chair Cushion.



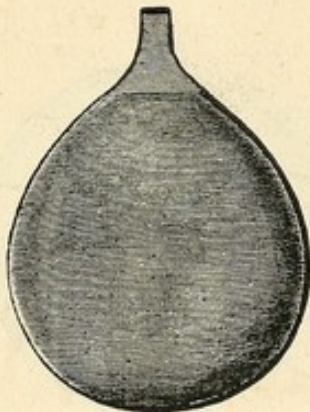
No. 1662. Chair Cushion.



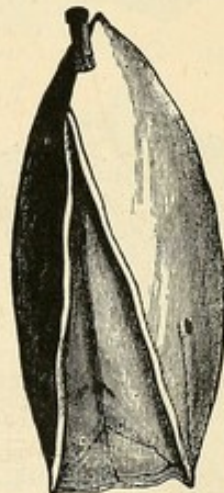
No. 1670. Cupping Cap.



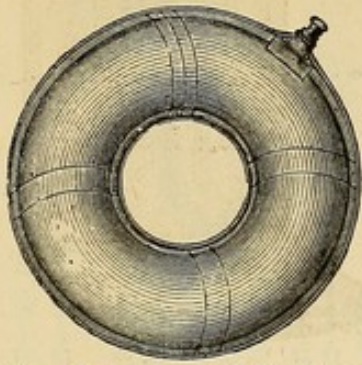
No. 1671. Dilator.



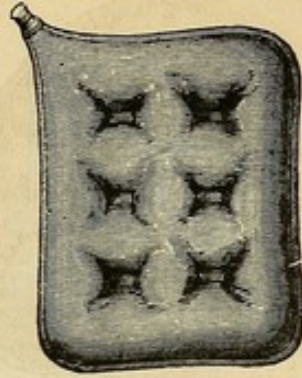
No. 1673. Gas Bag.



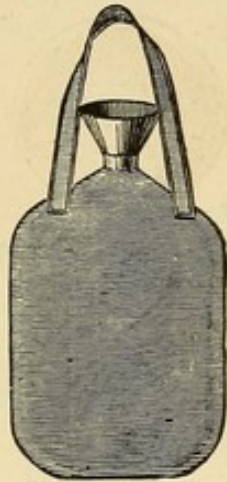
No. 1674. Gas Bag.



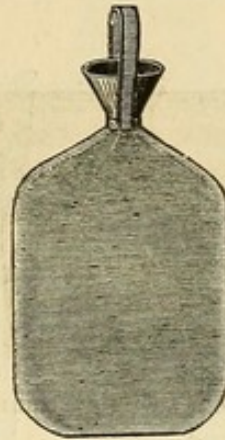
No. 1675. Invalid Cushion.



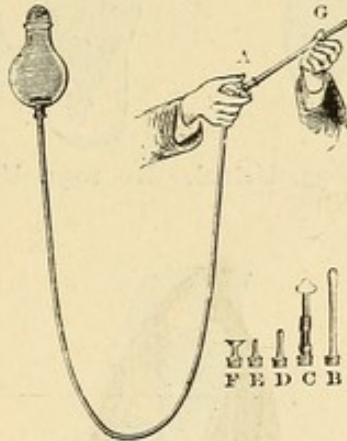
No. 1679. Water Bag.



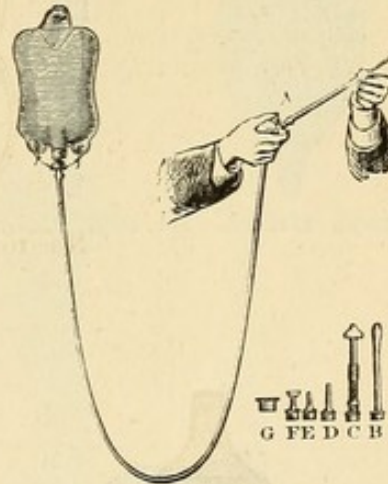
No. 1682. Water Bottle.



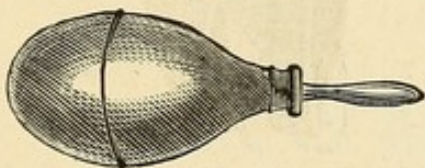
No. 1686. Water Bottle.



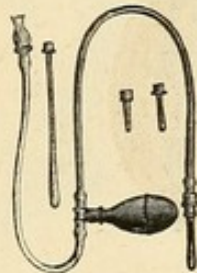
No. 1687a. Syringe.



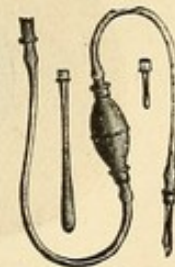
No. 1687b. Syringe.



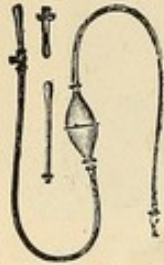
No. 1687c. Syringe.



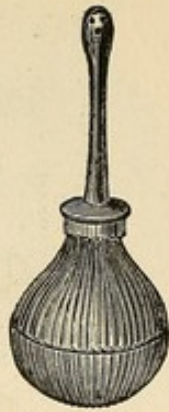
No. 1687d. Syringe.



No. 1687e. Syringe.



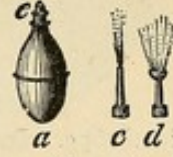
No. 1987f.
Syringe.



No. 1687g.
Syringe.



No. 1687h.
Syringe.



No. 1687i.
Syringe.



No. 1690. Urinal.



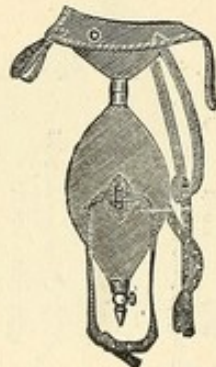
No. 1692. Urinal.



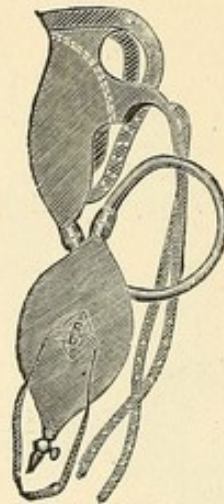
No. 1693. Urinal.



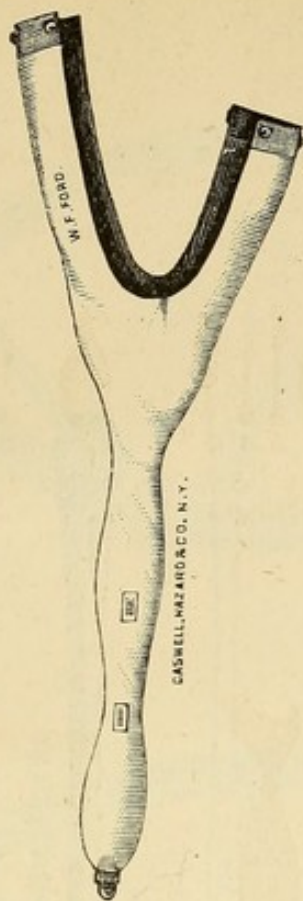
No. 1694. Urinal.



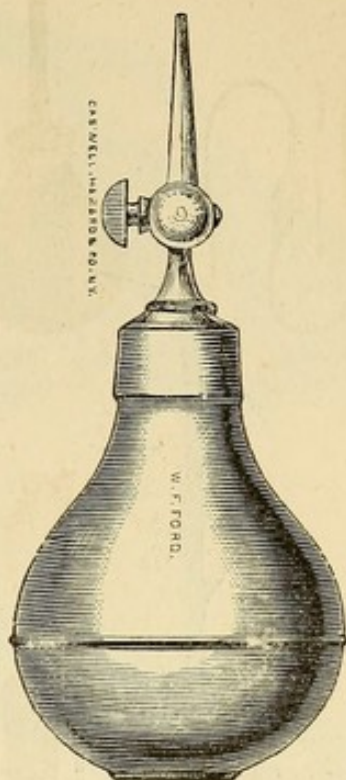
No. 1695. Urinal.



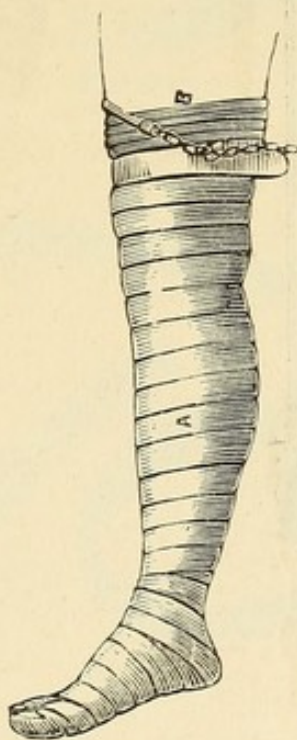
No. 1696. Urinal.



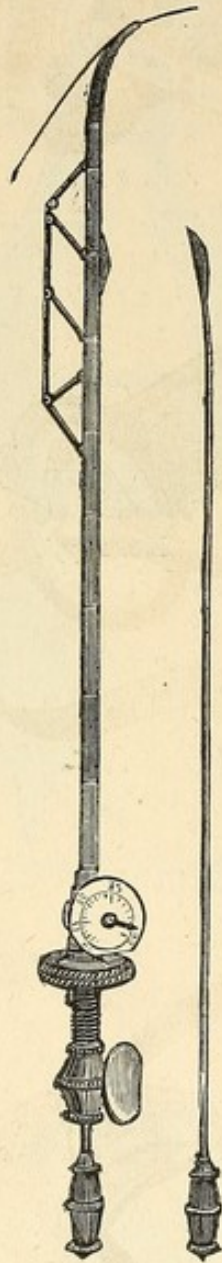
No. 1699a.



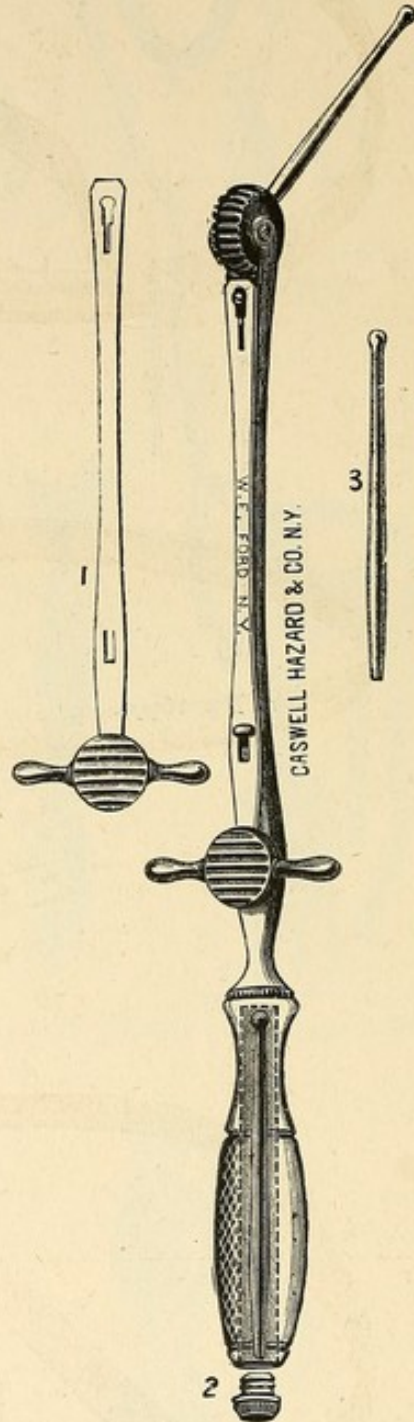
No. 1699b.



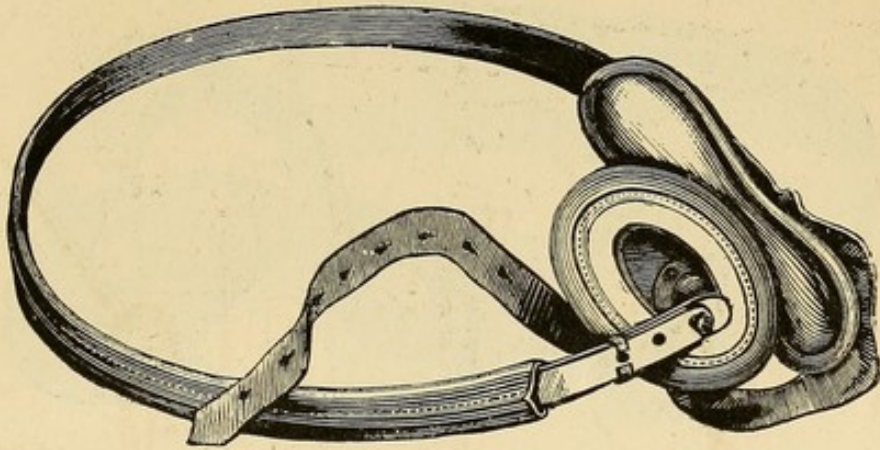
No. 1700.



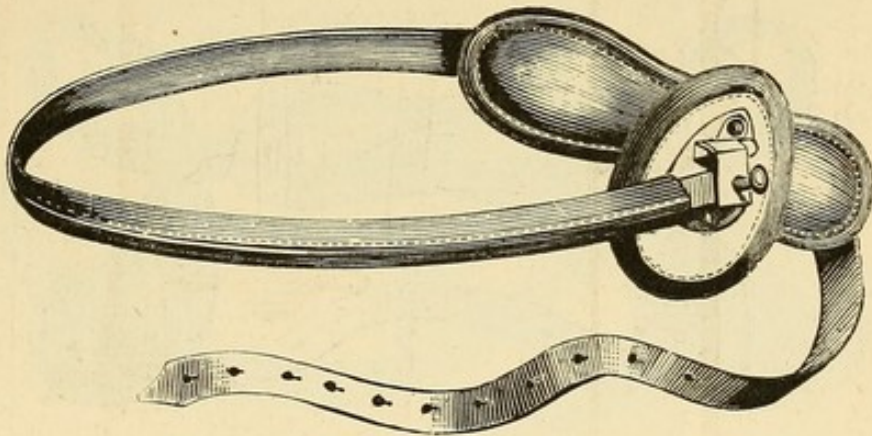
No. 1708.



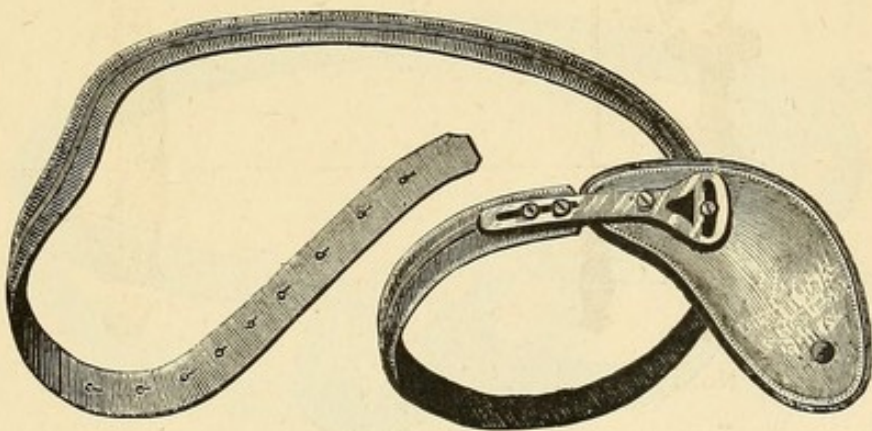
No. 1711.



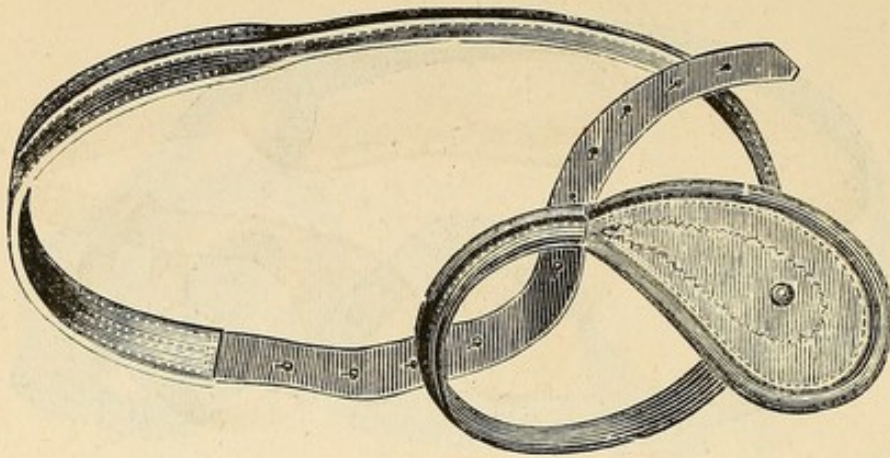
No. 1716.



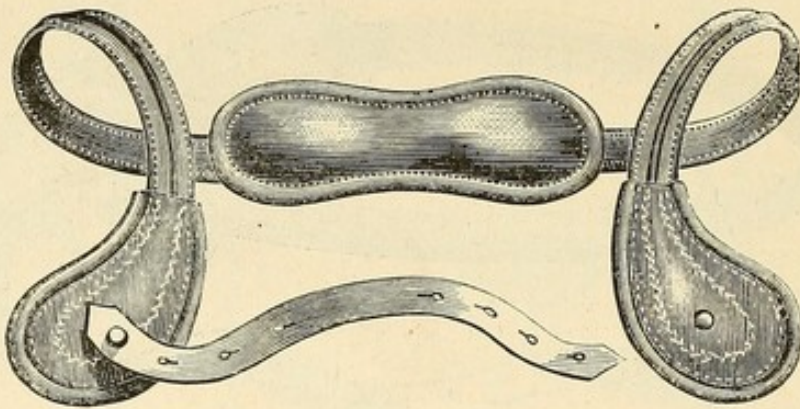
No. 1717.



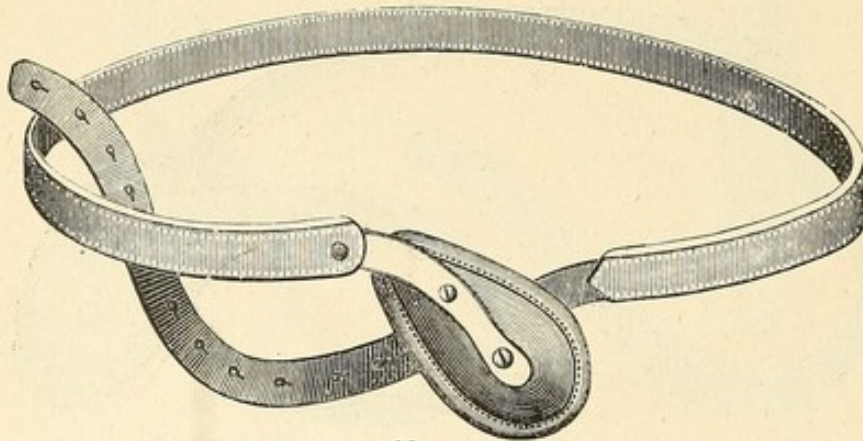
No. 1718.



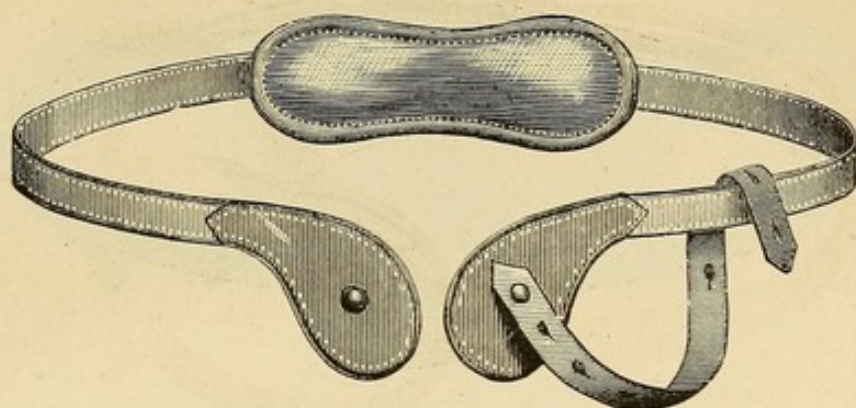
No. 1719.



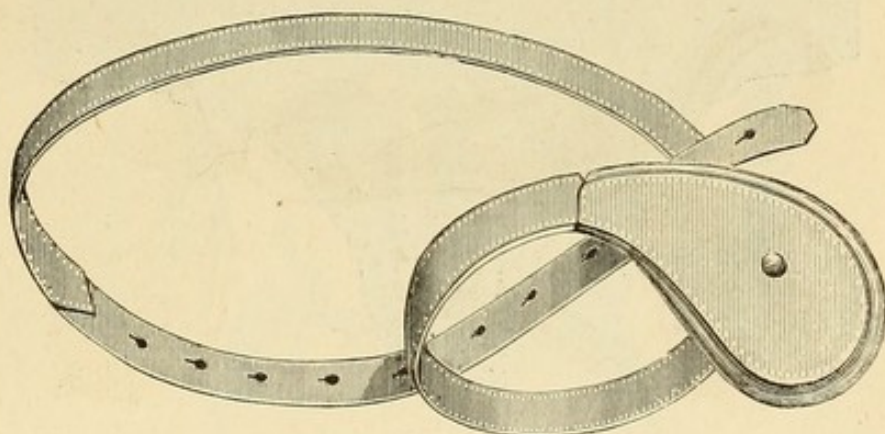
No. 1719.



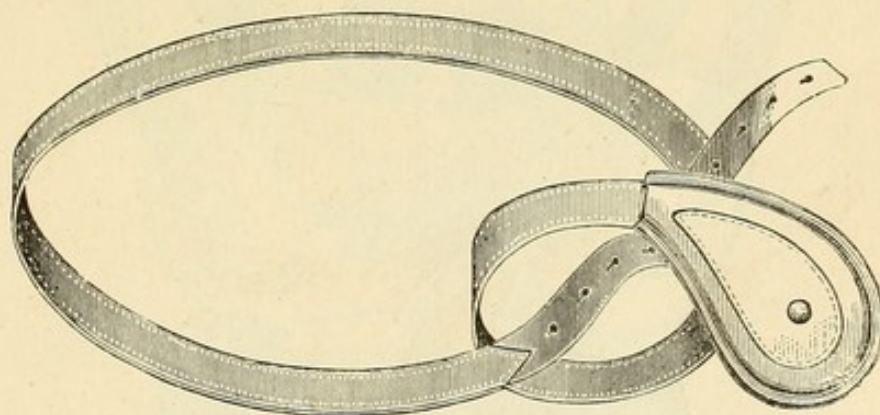
No. 1720.



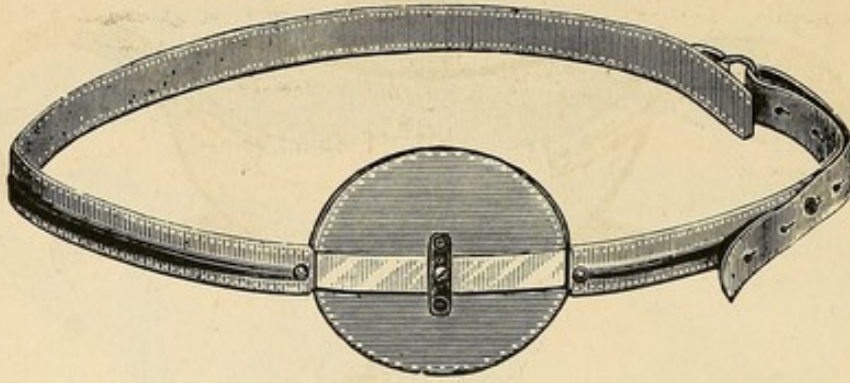
No. 1721.



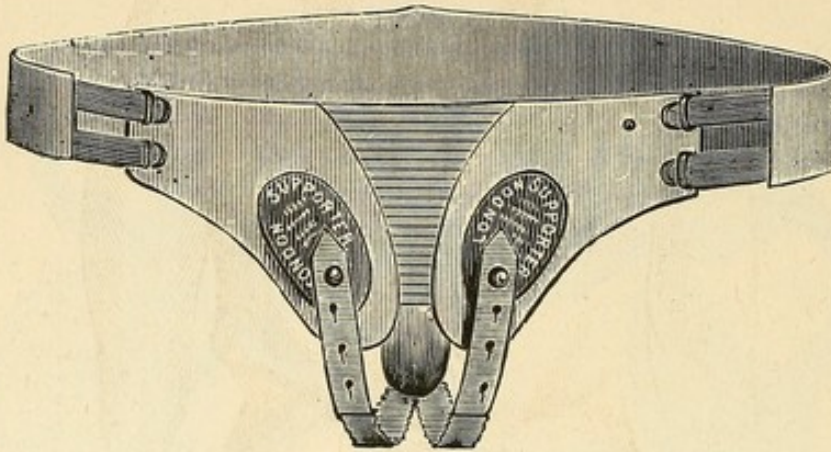
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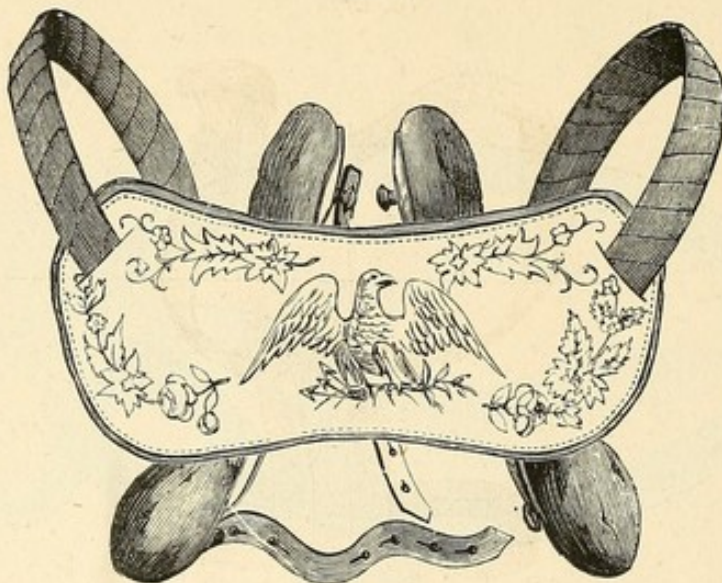
No. 1721a.



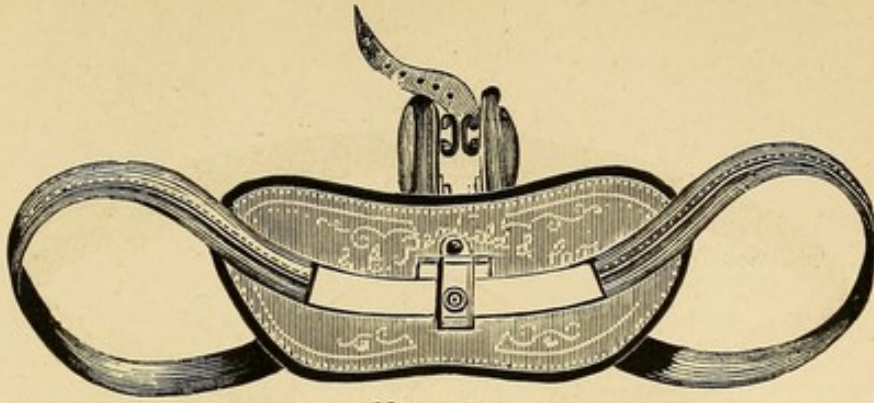
No. 1723.



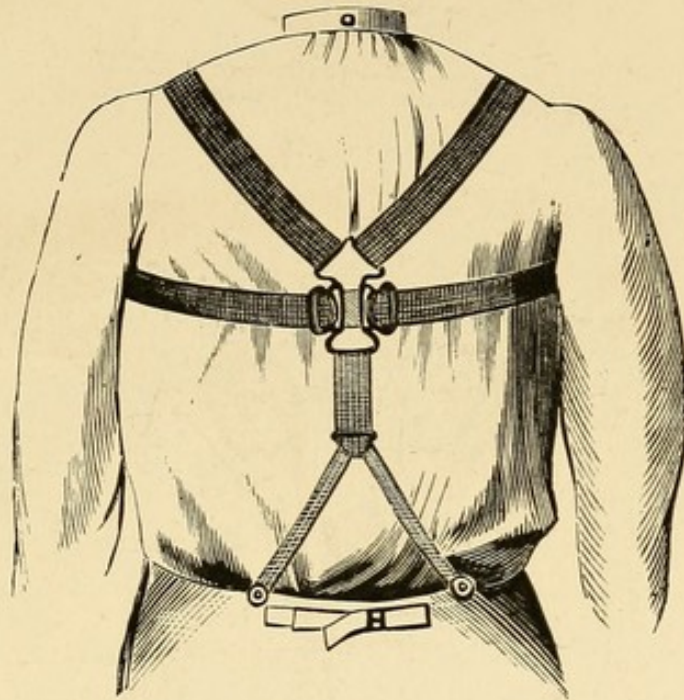
No. 1728.



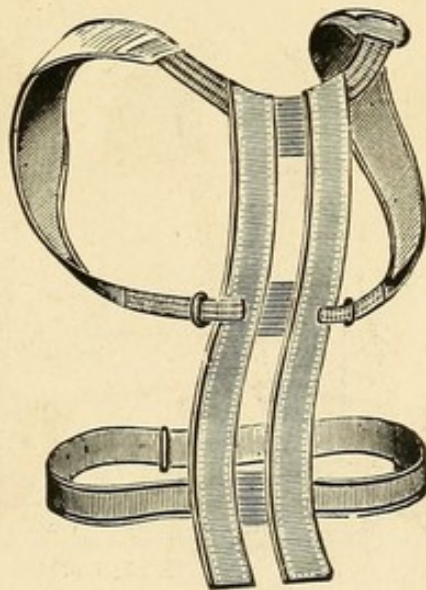
No. 1731.



No. 1732.



No. 1735.



No. 1738.

