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# **VULCANIZERS AND LATHES** WITH THEIR APPURTENANCES

Flasks, Flask Presses, Rubbers, Files, Corundum and Gem Wheels, Polishing Wheels and Materials, Etc.



# The S.S. White Dental Mfg. Co. Philadelphia: Chestnut Street, Corner Twelfth

## BRANCHES

NEW YORK: Spingler Bldg, 5, 7, and 9 Union Sq.; Charles Bldg., Madison Ave., cor. 43d St.

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We give special attention to mail orders, both in the matter of care and exactness in sending what is called for and in the prompt despatch of goods. Our rule is to send in every case, if possible, on the day the order is received and as early in the day as possible.

No matter where you are located, we can do business with you either from headquarters in Philadelphia or from one of our Branch Houses, and do it promptly and satisfactorily. Such service, based upon intelligent and careful attention to detail backed up by ample stocks of goods is yours for the asking.

We cordially invite correspondence relative to any requirement of the dental office and laboratory.

**Our Branch Houses** are so situated that there is scarcely a dentist who is not within twenty-four hours of one of our depots. In each of them will be found not only a full stock of goods of our manufacture, but an active and efficient corps of assistants who are ever zealous to give the best and most intelligent attention to your wants.

The motto of our retail mail order department is, "Do it Now." We realize that our customers' interests demand promptness, and we are resolved that they shall not complain of its lack.

# The S. S. White Dental Mfg. Co.

# Investing in the Laboratory

THE money spent by the dentist in equipping his Laboratory is an investment. Whether it shall be a paying investment or not, and still more whether it shall pay large dividends or small, depends upon the judgment of the dentist in selecting the equipment.

There is no question that the greater the efficiency of the Laboratory outfit, the better will be the investment. Tools and appliances of the highest possible efficiency not only increase the output; they decrease its cost, because their adaptation to use enables the dentist to do his work quicker and more easily. They help him to do his best, they lead him to improvement of methods. And, on the top of all this, they have a durability which makes their purchase a positive economy.

Laboratory appliances which bear the WW trade-mark have the highest efficiency of any, because they are designed and made with that as the end and object of their being. Design, materials, and workmanship are all studied carefully. Our aim is 100 per cent. of efficiency; that we come very close to achieving it, the records of the past sixty-seven years bear evidence. If you do not know the superiority of our products, test it in your Laboratory appliances. We shall be content to abide by your verdict.

# The S. S. White Dental Mfg. Co.

"Just as good as White's" is seldom true and never just

## THE S. S. WHITE VULCANIZER

Patented November 15, 1898 and July 17, 1906

This Vulcanizer is unique in its means for conveniently handling the lid of the steam chamber, the one problem in vulcanizer manipulation heretofore unsolved.

Instead of a clamping bar, there is a bow-shape crane, swiveling horizontally from a post fixed in a substantial lug in the jacket collar. The free end of the crane is notched to engage with a corresponding post at the opposite side, and its center-and highest point-is formed into a vertical hub for the support of the lid.

Within the hub, actuated by a cam, is a link mechanism, to which the lid is attached, and by which it is raised or lowered. The cam is operated by a lever. The link can be shortened or lengthened in seventy-seconds of an inch by means of a nut within the hub, which is turned by a small capstan bar supplied with the equipment. This affords a very close adjustment of the lid to the pot. The nut is invisible when the Vulcanizer is open, being drawn up into the hub, but is readily seen at the rear when the Vulcanizer is closed.



The lever raises and lowers the lid, and swings it to one side, where it is always ready for immediate return to close the steam chamber, without heing handled at all by the operator.

The operation of the lever is easy. The link mechanism is adjusted so that only a nice comfortable squeeze is necessary to close the lid.

The advantages of this construction are apparent at a glance. There is no looking around for something to lift the lid with, no danger of dirt from the workbench getting on to the packing to interfere with steamtightness. The lid, as a matter of fact, is never detached from the pot, never any trouble, its handling being with this vulcanizer as simple as the placing of the flask in the steamchamber.

The pot has a fixed position, can fit in no other. This position is determined by pins at opposite sides of the jacket collar, which enter slightly "staggered" bayonet slots in the pot collar, locking the pot in place. The rim enters an annular groove in the lid, in which is a rubber packing, forming the best arrange-

ment for preventing dirt getting into the packing. The lever centers the lid, so that it always goes to its seat.

The pot is of seamless copper, heavy enough to stand any required strain, light enough to heat up quickly. It is burnished into an internal annular groove in its supporting collar, and over its edge, forming a union which no mechanical force can break, precisely as in the pot of the Mann Vulcanizer as described and shown at page 5.

The lid carries the usual safety-cap, thermometer, and our well-known blow-off. By removing the safety-cap, our steam-gage or a gas regulator can be used; in the latter case a T connection which we supply at fifty cents, must be applied.

Can be heated with gas, alcohol, or kerosene.

We ask especial attention to the gas-burner designed for this Vulcanizer. The burner proper is supported at the bottom of a flared well, 1<sup>§</sup> inches deep, the iron bowl which forms it being flanged at the top for attachment to the base ring, to which it is securely bolted. The flange is perforated to create a strong draft, affording a very powerful protected flame, which assures ample heating capacity.



## PRICES

2-Case	Vulcanizer,	for	Gas or Alcohol	00
**	"	**	Kerosene	50
3-Case	Vulcanizer,	for	Gas or Alcohol	00
**	**	**	Kerosene	50

Complete equipment (all in the price) includes: 2 wrenches, 1 pot lifter, 2 (or 3) iron "Star" Flasks, 1 extra packing, 1 box safety-caps, 1 box soapstone, with gas, alcohol, or kerosene burner as ordered.



## DESCRIPTION

K Wrench No. 21 for Blow-off, Safety Valve

O Hook for handling the Clamping Bolt when

X Notched End of Clamping Bar, showing

Seat for Washer of Clamping Bolt.

M Wrench No. 22 for Clamping-bolt Nut.

P Tongs for lifting Pot out of Jacket.

and Star Flask. L Cover Lifter No. 23.

N Star Flask.

hot.

- A Clamping Bar.
- B Nut of Clamping Bolt.
- C Washer of Clamping Bolt. D Jacket Yoke.
- E Pot Collar, slotted to form Bayonet Joint for Locking Pin of Jacket Yoke.
- F Guide Pin for Lid.
- G Slot for Guide Pin.
- H Safety Cap.
- I Blow-off.

Made for two or three cases.

Pot, cover, and clamp bar nickel plated; base and yoke japanned and ornamented.

The equipment consists of two wrenches, a cover lifter, a hook O for handling the clamping bar, and the tongs P for lifting the pot out of the jacket, two or three iron Star Flasks, as the case may be, an extra packing, a box of safety caps, a box of soapstone, and gas, kerosene, or alcohol burner as ordered.

Price,	2-Case	Vulcanizer	for	Gas,	Alcohol,	or	Kerosene	 	 	 	 	 	 	\$18.00
64	3-Case	**	44	66	66	66	45	 	 	 	 	 	 	20.00

## THE MANN VULCANIZER

The Mann Vulcanizer combines safety, convenience, and durability.

The construction of the pot is one of its chief advantages (see sectional view). Of seamless copper, heavy enough to give all the strength needed, it is yet light enough to heat up quickly. Its collar is attached by forcing (burnishing) the side wall of the pot into an annular groove in the internal surface of the collar and over its upper edge, which is flat. The union thus formed is practically unbreakable, avoids the presence of a soldered joint, with the possibility of its becoming unsoldered by accidental overheating, is thus better than any soldered joint could be.

The top edge of the pot where it is flanged over the collar presents a flat, smooth surface to the rubber packing of the cover.

At one side of the collar an L-shaped or bayonet slot is cut for the accommodation of a locking-pin on the yoke, by which the pot is locked



Sectional view of Pot and Collar (half size)

into position. At one side of the slot is another pin which fixes the position of the cover on the pot. The combined effect of thus limiting the place of the pot and its cover is that the lug of the clamping bar which puts pressure upon the lid has a fixed seat, to which it goes unerringly.

The cover is a heavy casting and carries the usual thermometer and safety cap, and a blow-off which is unique. Those who control their vulcanizing by steam pressure can substitute the ordinary safety cap by the steam gage (page 6), which carries a safety cap. The blow-off valve (see illustration) is of brass, cylindrical in form, with a shouldered head terminating in a cone. Its body rests within a hollow set screw, which works against the shouldered head. It is free (unattached) at all points, so that the coned head shall find its seat unerringly when the set screw is tightened and make the valve steam tight. A nipple at one side, through which the steam passes when the valve is opened, affords

> means for the attachment of a rubber hose to carry the steam out of the room or into a vessel of water, and thus avoid annoyance from it. The under side of the cover is provided with an annular groove, for

the reception of the rubber packing in which the top edge of the pot finds its seat when the vulcanizer is closed. It is clear that as the pot

always takes the same position, and as its edge is smooth and flat, the seat formed is perfect and the joint between cover and pot steam tight.

Sectional view of Blow-off (actual size) The base is a cast-iron tripod, supporting a Russia-iron jacket, in the top of which sits a heavy yoke, the broad, internal annular shoulder of which affords the resting place for the pot, which is readily lifted out of the jacket when the clamping bar is swung out of the way. At one side of the yoke the clamping bar is hinged to two heavy lugs.

At the opposite side two similar lugs support the clamping bolt. The free end of the clamping bar is formed into a seat for the washer under the nut of the clamping bolt, thus providing against the bolt being accidentally misplaced.

Inserting the cover lifter between the projecting ends of the clamping bar, affords an excellent means for holding the Vulcanizer steady, without touching it with the hands, while the nut of the clamping-bar bolt is being tightened or loosened. The entire construction and equipment are calculated for ease in working, effectiveness, and durability.

APRIL 1911]

## MERMURY BATH THERMOMETER

Thermometers for vulcanizing should register with the utmost exactness, as any inaccuracy may mislead one as to the degree of heat applied to a case, and result in an under- or over-vulcanized plate. A more serious effect of an imperfect thermometer might be an explosion.

In view of these facts all our thermometers are submitted to the most careful inspection, and none accepted which are not fault-proof.

The scale has white figures on a black ground; this makes them easily readable.

As the 320° point varies on the tubes, each scale must be fitted to its tube, and will not be sold separately. In replacing a broken tube the new scale and tube should both be used.

Price ...... \$0.50

## STEAM GAGE

A properly working steam gage is the best indicator as to temperature and pressure conditions in the steam chamber of the vulcanizer. Being connected directly with the steam chamber, it shows the pressure there, noting at once any variations, affording a key to the temperature

and its changes. It is thus a dependable guide and the surest safeguard against overheating and a possible explosion.

The Steam Gage which we offer is well made, and reliable. It is safe, being provided with a safety cap, which will automatically release the steam, should the danger point, from any lack of attention, be approached.

## ENDLESS PACKINGS FOR VULCANIZERS

These Endless Packings are made of the best quality of cotton duck, woven in the shape of a cylinder to exactly fit the vulcanizers for which they are intended, the layers of duck being securely held together by a rubber compound, which gives them compactness and elasticity. They are, of course, without joints, stand any needed heat, have a smooth surface, and make a steam-tight and perfectly satisfactory packing.

## PRICES

For Davis, Mann, and S. S. White Vulcanizerseach	\$0.12
" Whitney Vulcanizers "	.08
" Hayes "	.10
" Seabury " "	.40
We have also the Strip Packings at the following	
PRICES	
For Mann Vulcanizers	\$0.10

For	Mann Vulcanizers	£		 			 	 	 +		+ +	 	 ele.	 	 		 	*	 -	 	 each	\$0.10	)
**	Whitney "			 			 	 					 				 				 44	.03	5
**	Hayes "			 			 						 		 		 			 	 **	.08	5

## SOAPSTONE FOR COATING VULCANIZER PACKINGS

80

60

40

20





## THE STAR REVERSIBLE FLASK

The Star Flask has long been popular—the greatest seller of all—because of its convenience, and because it practically gives two flasks for the price of one. The detail illustration shows the top and bottom plates and the two rings, all separated, and the form of the bolt.

The wide ring has a long bevel, the narrow a short one, so that each fits the top and bottom interchangeably. The narrow ring is used next to the bottom plate, for whole dentures where the parting is at the rim of the plate. By using the wide ring next to the bottom, an admirable Flask is obtained for deep cases and partial sets, or where the artificial rim rests on the natural. The plaster runs into the holes in the bottom plate, so that when set the plate is attached to the ring for the time being as firm as if made of a piece with it. The heads of the bolts are Tshaped to fit the slots in the bottom plates, and are free at both ends.

The general shape of the rings is that of a heart, thus economizing in the use of plaster. The ease with which the plaster is removed is not the least of the advantages.

Two sizes, with inside measurements of the rings at the parting line as follows:

Regular,  $1\frac{1}{2}$  inches deep,  $2\frac{3}{8}$  inches across the narrowest part,—from the point to the depression between the two lobes,—and  $3\frac{1}{8}$  inches at the widest part.

Extra large, 14 inches full x 21 inches full x 34 inches. The bolts in the extra large size are correspondingly heavier.

Made in malleable iron nickel-dipped, and brass.

The Star Flasks can be closed with our flask presses, or, without bolts in the Donham Spring Clamp (see page 11).

## PRICES

Star	Flasks,	Regular, Malleable Ironeach	\$0.80
	"	" Brass "	1.80
"	**	Extra Large, Malleable Iron "	1.25
**	"	" " Brass "	2.50











BOX FLASK

Designed for extra large cases and for making appliances like splints for fractures, etc. It is made in two sizes, viz:

No. 1 adapted to two-case vulcanizers.

No. 2 adapted to three-case vulcanizers.

The construction of the Flask is such that very nearly all the available space in the boiler is utilized.

Price.....\$1.00

Closed



## ANCHOR FLASK

The Anchor Flask is a generally useful one, with one prominent feature which gives it exceptional value when extreme pressure is to be applied, as in molding celluloid work. That feature consists in forming substantial ribs in pairs across the ring in line with the lugs for the bolts on the top and bottom plates.

These ribs support the lugs and also to an extent the bolts, so that they will stand any pressure no matter how extreme. The construction is thus very strong, without weak spots.

Made in brass and iron. The Iron Flasks are nickel dipped. Can be closed with our flask presses, or without bolts in the Donham Spring Clamp.

Anchor	Flasks,	Iron .		•	 	 	٤.			•	•	 e	each	\$0.80	
	**	Brass			 								**	1.60	



# THE HANDY FLASK PRESS No. 2



The Handy Flask Press is so constructed that the bolts of the flask may be placed in their position, after the two parts are put together, without removing it from the Press. The top and bottom plates are connected at their corners by wrought-iron screw bolts passing through tubes, and all are clamped together by nuts.

The base piece sits upon feet or supports, which gives room to place the bolts through the bottom plate of the flask, when the nuts are on top. The feet are drilled to permit the passage of pins screwed into the table or bench top. The Press can be lifted and placed in a hot oven, or in a vessel containing hot water, if desired, and easily replaced for screwing the two parts of the flask together. The lower end of the press screw is provided with a swiveling washer. The upper or outer end is squared so that the handle may be placed in various positions.

The screw is made to work freely in the nut, so that the operator may determine the amount of force applied to the closing of the flask.

Price ..... \$3.00

# THE S. S. WHITE DENTAL MFG. CO.'S FLASK PRESS No. 1

This simple, easily worked Flask Press has been before the profession for many years. The arms are quite heavy, so that there is no doubt that they will stand a far greater pressure than is required to close the flask. This Press also has the best-running thread of all the low-priced presses on the market.

Price ..... \$1.75



## FLASK PRESS No. 3 Designed by Dr. Erastus Wilson



Flask Press No. 3 is intended for closing the flask only while in the boiling water, when the rubber is thoroughly softened by the heat, and it is therefore provided with means for keeping the hands out of the steam area. A side handle projecting beyond the side of the vessel, affords means for holding the apparatus while turning the screw. The screw is central in operation, and is manipulated by a handle a foot or more above the flask. Both hands are thus out of the reach of the steam, and the apparatus gives perfect control of the closing of the flask, and makes it an easy task.

Dr. Wilson, the inventor, has used it for more than thirty years, with the greatest satisfaction.

Made strong in all its parts, the metal parts nickel dipped.

Price .....\$2.00

## CLOSING THE FLASK BY SPRING PRESSURE

The two apparatuses for closing the flask in vulcanizing shown on this and the following page dispense with the use of bolts in the flask, by applying a continuous spring pressure, which operates automatically, so that when the rubber melts, at about 250° Fahr., the flask closes evenly, and is held under pressure constantly during vulcanizing, and while cooling. This method eliminates the danger from forcible pressure applied while the rubber is hard, avoids liability to spread the teeth or crack the teeth or investment, and assures a plate of even thickness.

## THE SEABURY DENTAL FLASK and RUBBER COMPRESS



Flask, Partly Open 3 x 2<sup>2</sup>/<sub>4</sub> Inches Inside Measure



Compress and Flask, Showing Parts and Method of Use

The Flask is made of brass, in three parts, with vent-holes in the top. The guides, one on either side, work on an incline. Lugs indicate the proper placing of the top plate.

The Compress consists of a substantial yoke frame pivoted to a base for the reception of the flask, with a screw passing through the yoke. Within the screw is a spiral spring, through which the pressure is made by tightening the screw, which is worked with a lever wrench. When more than one flask is to be vulcanized at a time, they are placed one over the other, the screw is tightened, and the apparatus is placed in the vulcanizer. The Compress is made in two sizes, for two and three flasks. When one case is to be vulcanized in a Two-case Compress, a metal blank (supplied with the Compress) is set on the flask as shown.

Seabury	Flasks, Brasseach \$	1.35
"	Compress, Two or Three Case, including Wrench and Blank	2.00

# DR. DONHAM'S FLASK AND SPRING CLAMP



The Donham Spring Clamp is a very simple, effective device. A yoke-shaped spring is pivoted to an iron base. The flask—without bolts—is set on the base and the tension of the spring applied by tightening the screw in its top. The screw is worked by a lever handle passed through its head. Made in two sizes, for two flasks and three flasks. A single flask can be vulcanized in the twoflask size by substituting for the upper one the metal blank supplied with the Clamp.

The Donham Flask, devised especially for use with the Spring Clamp, is of the three-part variety. It has no bolts, but is provided with guides to assure the accurate closing of the parts, and with vents in the top plate. Made in brass and iron. Size 3 x  $2\frac{13}{16}$  inches, inside measurements.

Although originally designed only for closing the special Donham Flask, the Donham Spring Clamp has been found to work well with our Star (regular) and Anchor Flasks, of course dispensing with the bolts.

We have recently introduced a size of the Donham Spring Clamp adapted to take a single largesize Star Flask. Made of tempered steel.

## PRICES

Donham	Flasks,	Brasseach	\$1.50
"	"	Iron	.60
"	Spring	Clamps for two or three Flasks "	1.25
"	**	Clamp of tempered steel for one Large Star Flask	1.75

# WRENCHES FOR VULCANIZERS AND FLASKS

No. 7. For Seabury Compress, \$0.15

- No. 21. Operates Safety Valve and Blow-off Valve Mann and S. S. White Vulcanizers, and the Bolts for the Star, Anchor, Whitney, and S. S. White Box Flasks.
- No. 22. Operates Clamping Bolt Nut of the Mann and S. S. White Vulcanizers .25
- No. 23. Cover Lifter and Clamping-bar Holder for Mann Vulcanizer .....



FLASK BOLTS



Whitney, per Set 3 (1 long and 2 short) .....

.12

## GAS BURNER No. 12

A very efficient Burner for general laboratory work, like the waxing up of cases, and especially useful for heating vulcanizers. When the Mann vulcanizer is ordered for gas this Lamp is invariably sent, unless No. 13 is specified.

The tubes are made of brass and the base of cast iron, japanned. The tripod base occupies a space of three inches along each side. Height to top of tube, 24 inches. This Burner is so constructed as to assure perfect combustion and afford excellent heating power.

Price ...... \$0.50

# SPIDER

## For Gas Burner No. 12

A convenient support for use upon a No. 12 Gas Burner to hold a vessel of water, or to heat up an investment.

Many uses will be found for it in the laboratory. Made of cast iron, japanned, 3½ inches in diameter.

Price ..... \$0.25



# GAS BURNER No. 13 AND SPIDER

A gas-burning heating apparatus on the principle of the Bunsen burner—giving a pure blue flame without smoke. It is admirably adapted for use with the "Best" Hot Moist Air Celluloid Apparatus and for heating vulcanizers. It is also largely used for heating up the ring and investment in the modern cast work. With the addition of the Spider it makes a very convenient and efficient heater for general laboratory work. The top containing the orifices for the passage of the gas can be readily removed for the purpose of cleaning when desired. The base of this Burner is 3 inches in diameter, and the height is 24 inches.

## PRICES

Burner																		\$1.0	0
Spider					;													.2	5

## **VULCANITE SOLDER**

Will be found an efficient help in repairing rubber plates. Wax the part to be patched, invest in plaster, remove the wax, scrape away the surface, and paint over with the solder. Wait five minutes, pack with warmed rubber, and vulcanize as usual.

## LIQUID CELLULOID

One of the necessities for properly repairing a celluloid plate is the liquid preparation we offer. A sightly, durable repair can be made with its assistance.



## S. S. WHITE BASE-PLATE AND VENEERING RUBBERS



**Eight Varieties** 

Why the Dentist Should Use these Rubbers.—The S. S. White Base-plate Rubbers have behind them a thorough comprehension of the needs, years of experience in manufacture, an exhaustive knowledge of the manipulative processes by which rubber is prepared for the dentist's use. We buy the best gum, and treat it, from the washing to the calendering, with an eye single to the production of *the best* compound to make satisfactory vulcanite plates. Our Rubbers are the outcome of the use of pure materials, proper compounding, careful handling, *unsleeping cleanliness*,—watchful attention to every detail of the manufacturing processes. They can be depended upon as to working qualities, as to the strength of the plates made from them, and the packages are always full weight.

**Purity and Cleanness.**—Our Base-plate Rubbers contain nothing but the *pure gum*, the sulfur, and the coloring-matters, and all of these are prepared and handled with great care. Every precaution is taken to assure the cleanness of the product.

**Toughness.**—Toughness is one of the inherent properties of rubber. The preservation of this natural toughness through the manipulative processes is essential to its value as a base for artificial dentures. Our Base-plate Rubbers are so treated—not by the admixture of foreign substances, but by mechanical processes,—that the toughness of the rubber is maintained.

**Colors.**—It is easy to produce variations of colors and shades in vulcanizable rubbers. We confine ourselves to the standard colors as noted below,—the descriptions referring to the vulcanized pieces:

Bow-spring. A medium brown.

No. 1 Red. A reddish brown, lighter than the Bow-spring.

No. 2 Red. A still lighter shade.

Weighted. A mottled red.

Black. A clear jet black.

White. A light drab, approaching white.

Pink. A dark pinkish tint.

Pink A. A lighter pink, very delicate.

With these eight we believe we cover the practical needs of the prosthetic dentist.

Any of the regular base-plate brands, Bow-Spring, No. 1 Red, No. 2 Red, and Black, will make a satisfactory plate. The range of colors affords the dentist an opportunity to gratify his taste.

Weighted Rubber, as is well understood, is loaded with metal and is designed for lower dentures, the extra weight assisting in retaining the plate in position.

The three colors, White, Pink, and Pink A, are known as coating or veneering rubbers. Not having sufficient strength of themselves to make a satisfactory plate, they are used to coat or cover the exposed portions of plates made from regular base-plate rubbers with a thin veneer. The Pink A is a peculiarly delicate shade, harmonizing with the usual gum color, and therefore especially valuable in esthetic dental prosthesis.

Full Weight.—As is well known, the faces of the sheets of dental base-plate rubbers as put up for sale are covered with holland. This is for two purposes,—to keep the surface clean and smooth and

# S. S. WHITE BASE-PLATE AND VENEERING RUBBERS (Continued)

glossy, and to prevent the sheets of rubber from sticking to one another. Some manufacturers use a thin holland, others thicker grades. Sometimes it would appear that the holland is used to take the place and make the weight of rubber which is not there. We found only one rubber, besides our own, in which the packages were not "short" on rubber and "long" on holland. In a number of widely advertised brands the rubber in a half-pound package weighed from  $6\frac{1}{2}$  to  $6\frac{1}{3}$  oz., and the holland from  $1\frac{1}{3}$  to  $1\frac{1}{2}$  cz. The packages all weighed a half-pound, sometimes more, but always there was a shortage of rubber, in some cases amounting to  $2\frac{3}{4}$  oz. to the pound. A pound of our Dental Rubbers contains 16 oz. of rubber. We use a thin holland, but thin and light as it is, we do not sell it for rubber.

## PRICES

Bow-spring, for Base Plates No. 1 Red (Dark), for Base Plates No. 2 Red (Light), for Base Plates Weighted, for Base Plates Black, for Base Plates	5-lb. lots per lb. \$3.10	10-lb. lots per lb. \$2.95
White, for veneering Pink, for veneering   Pink A, for veneering Pink A, for veneering	5-lb. lots per lb. \$4.25	10-lb. lots per lb. \$4.00

Put up in half-pound boxes

# POULSON'S PINK RUBBER

(In 1-lb. boxes)

## POULSON'S SHADED VENEERING RUBBERS

The idea which led to the introduction of Poulson's Shaded Rubber for Veneering was: that a combination of shades would be more pleasing to the eye and a nearer approach to the appearance of the natural gum than a solid color.

They are furnished in two varieties, as follows:

Shaded Pink Rubber No. 1 Light was devised to supply the defects of monochrome pink rubbers in imitating gum-tissue. It helps to give a natural appearance to the denture.

Shaded Pink Rubber No. 2 Medium produces a somewhat darker gum color than the No. 1. In other respects it is the same. The two shades will cover the range of difference in color of natural gum-tissue very well.

Put up in 1-lb. packages.

Price .....

Price .....

## THE S. S. WHITE DENTAL MFG. CO., Sole Sales Agent for America

## **VULCANIZABLE GUTTA=PERCHA**

15

## THE "BEST" HOT-MOIST-AIR CELLULOID APPARATUS

This apparatus has long afforded satisfactory results in mounting teeth on Celluloid plates. The plaster in the flask is made wet by setting it in water before placing it in the hot chamber. The steam from the water in the plaster carries off any excess of camphor remaining in the compound. It also assists in the distribution of the heat so that the plate softens uniformly. The inside chamber is of cast iron, surrounded by a sheetiron casing. The lid, of cast iron, forming a part of the clamp, is pierced for the passage of three wrought-iron screw bolts,-the nuts being on the upper side and easy of access. When these nuts are turned for the purpose of closing the clamp, the bottom portion of the clamp is drawn up by each revolution away from the flame, thus avoiding the danger of overheating the plate, and securing a uniform heat.

This apparatus is convenient for the patching or repair of plates. It has also been largely used for the dry-heat method. When working under this method, the investment is thoroughly dried out before the flask is put into the chamber.

The complete outfit as priced includes a Wrench and two Iron Flasks (large and small).



PRICES

Complete, for	r Gas, with No. 13 Burner as shown \$9.	.00
	Alcohol, with Burner No. 10 10.	.00
Iron Flasks,	separatelyeach 1.	.00

## **CELLULOID PLATES**

Because of its close approximation to gum color, Celluloid can be used as a complete plate or as a facing to represent the gums on a plate of vulcanite or gold.

Celluloid is grateful to the mucous membrane.

Celluloid requires no more labor or skill in its manipulation than rubber.

The variety of blanks is sufficient to meet every need. Five different series of plates are made, each with from four to eight different sizes, giving a variety of thirty-three plates to select from, which will meet nearly every case.

ORDINARY UPPERS.—Eight sizes; smallest, No. 3, 14 inches x 2 wide, running up to No. 61, 21 x 24 inches. The half numbers (31, 41, etc.) are the same sizes as the even numbers, but much heavier.

the second second property will be address the	( Nos.	3	31	4	41	5	$5\frac{1}{2}$	6	61
Uppers									-
Uppers	Price,	\$0.20	.25	.25	.25	.25	.30	.35	.35
"A" PLATES Same sizes and numbers as ord	linary 1	ippers,	but de	ouble	thick	ness.	for ca	ses w	here
	1 . 1 66 4 9	1	and the second		10.00 M				
Uppers "A"	( Nos.	3	31	4	41	5	51	6	$6\frac{1}{2}$
Uppers "A"	- Lave								
and all and adaption interests the line and	Price,	\$0.25	.30	.30	.35	.35	.35	.40	.50
LOWER PLATES Seven sizes; No. 11, smallest,	to No.	41.							
Lowers	Nos.	11	2	21	3	31	4	41	
Lowers	-								
	Price	\$0.15	15	90	90	95	95	20	

PARTIAL PLATES.—Three varieties, 2 sizes of each. Nos. 5 and 6 are for ordinary cases; Nos. 7 and 8 are designed for cases where the front teeth only are to be replaced; Nos. 9 and 10 are for the side teeth.

Partials	Nos.	5	6	7	8	9	10		
Partials									
	Price.	, \$0.10	.15	.20	.20	.15	.20		
PLUMPER PLATES Four sizes, Nos. 3, 4, 5, and	6. T	hese are	nearly	the	same	sizes	as the	ordinary	
uppers of the same numbers, but with very heavy	rim,	for cases	where	the	gum	is mu	ich abs	orbed.	
DUITERA, DEDCHA	Nos.	3	4	5	6				
Plumpers									
Plumpers	Price	, \$0.30	.35	.50	.40				

## RUBBER CONDUCTING TUBING



Our Rubber Conducting Tubing, for conducting gas from the brackets to soldering appliances, vulcanizers, etc., is the best quality known to the business. The rubber is not loaded with clay or other cheapening substances, and consequently it has a life of service unknown to so-called cheap grades. We have it in light and heavy walls, the latter in one size only, corrugated. The diameters stated are inside.

## PRICES

Light ;	a-m.	diamete	r			 	 	 	 	 	 	per	foot	\$0.08	
	1 "	**				 	 	 	 	 	 1	100	**	.12	
"	3	66											**	16	
Heavy,	Corr	hoteou		diam									**	.10	
arour j,	0011	ugaccu,	4	unem	coor	 	 	 	 	 	 				

## ALCOHOL LAMPS Nos. 9 and 25

Alcohol Lamp No. 9 is furnished with the Mann Vulcanizers when ordered for alcohol. It will also serve for heating other vulcanizers. The reservoir is large and the wick furnishes a flame that will quickly heat the boiler, and which is regulated by a lever extending from the side of the lamp.

No. 25, supplied with the S. S. White Vulcanizer, is similar to No. 9 in everything but size. No. 9 is 5 inches in diameter,  $\frac{7}{8}$  inch deep, the wick tube having a §-inch opening. No. 25 is 5 inches in diameter, 1 inch deep, the wick tube opening \$ inch.



	Alcohol																						
-	"	"	**	25.	 	• •	 • •	 • •	 	• •	 • •	 • •	 	 • •	• •	• •	• •	 • ••	• •	 		1.0	0

## CLEANSING PASTE FOR THE HANDS



Dentists of general practice, as the great majority are, are doubtless called upon often when in the midst of some laboratory operation to proceed at once to the office,-patient is waiting.

Those who know the virtues of our Cleansing Paste feel no embarrassment at dropping the work in hand and proceeding at once to the examination of even the most fastidious patient's mouth. An application of the Paste will not only remove quickly all evidences of laboratory grime, but will leave the hands in just the right condition-soft, and smooth, and with an atmosphere of cleanliness -to be appreciated by patients. Even the grime coming from the handling of flasks in vulcanizing, upon which soap and water make little impression yields almost instantly to the action of our Cleansing Paste.

In using it, moisten the hands, put a little of the Paste on the palms, rub thoroughly, and then wash off, and it will leave the hands soft and white. No "chapping." Keep the lid on the jar when not using.

Put up in glass jars with metal covers.

## SCIENTIFIC SUCTION FOR VULCANITE DENTURES

The ideal scientific suction in vulcanite dentures is obtained by making a perfect fit. If the fit is perfect, the suction will be ideal. But every prosthetic dentist knows the difficulties of obtaining this perfect fit. A slight drawing of the plaster over an irregularity, a bulging because of soft tissues, or even at times the slight expansion of the plaster itself in setting, will ruin the fit.

The usual remedy-the air-chamber-has objections in that it causes irritation through the sharp edges and decided offsets in the soft tissues which it forms, in some cases progressing to paralyzation of the parts.

Many devices have been proposed to avoid this, two of the most approved of which we present below, the aluminum Suction Plate and the Cohesion Surface Form.

In both of these the idea is the division of the suction area into numerous small spaces, which may be distributed as desired over the denture instead of confining it to a single large space in the central portion. Plates so made adhere as if glued to the parts, without causing irritation or marked indentations of the mucous surface.

## **ALUMINUM SUCTION PLATES**



The Aluminum Suction Plate is made of thin Aluminum, embossed in such a way that one side presents the appearance of a series of minute cup-like depressions, the other of corresponding papilliform prominences. The edges of the depressions are rounded, and their reproduction on the vulcanite provides a series of small suction points or spaces, each a perfect vacuum chamber, and which in the aggregate provide a holding power at least equal to that of the air-chamber without its disad-

vantages. The metal is sufficiently rigid to prevent the flattening of the cups under the pressure of vulcanizing. Used as a lining for the denture or merely a die upon which to mold its contact surface. In the former case it is attached permanently in the vulcanizing; in the latter, it is stripped off after the conclusion of that process.

Sold in oblong sheets,  $1\frac{1}{4} \ge 1\frac{7}{8}$  inches; it may be cut into pieces as desired and distributed at advantageous points.

Put up in boxes of six sheets, each box containing full directions for use.

## **COHESION-SURFACE FORMS**





The Cohesion-Surface Form is of the same general character of embossing as the Aluminum Suction Plate, except that it is made of pure tin and as sold is of a form to be at once fitted to the model. The little cups, also, are concaved at

the base, giving them the shape shown in the enlarged sectional view. This Form can also be cut to suit the requirements of the case. Strong adhesion can be had with a narrow plate. Lower plates made with this device are very firm.

Can be permanently attached to the vulcanite as a lining or used merely as a die to mold the surface. When used as lining it is fixed to the plate before vulcanizing with rubber cement. Put up in packages containing one dozen Forms of the size shown, which can be cut for either

upper or lower plates. Full directions with each package.

Price,	Cohesion-Surface	Forms	 		 	 	 	 	 							 	.pe	er box	\$0.2	5
"	Rubber Cement .		•••	•	 •••	 • •	 • •	 • •	 	•••	• • •	• •	•••	• •	• •	 ·I	er	bottle	.2	15

# SPYER'S AUTOMATIC SUCTION CAVITY



Fig. 1 is a view of Spyer's Automatic Suction Cavity ready for use. Fig. 2 shows it in position on the plaster model.

The Automatic Suction Cavity is furnished already shaped for the model; it is only necessary to trim it to meet the requirements of each case.

It is easily attached to the model, does not interfere with the coating up of the case, and is readily removed after the vulcanization, providing the means for strong adhesion from end to end of the plate.

Each box contains 12 Automatic Suction Cavities, with directions for use.

## THE VULCAN GOLD LINING

## A Perfect Gold Covering for Rubber Plates



This Lining is composed of pure Gold thinly plated on one side with pure Silver.

It is applied in one piece to the surface to be covered. No extra care is required in packing the flask.

The union between the rubber plate and the Gold Lining is mechanical; the sulphur in the rubber set free in vulcanizing corrodes the surfaces of the Silver, to which the rubber adheres perfectly. The sheets are  $3\frac{1}{5} \ge 3\frac{1}{5}$  inches and of the thickness of No. 30 foil.

If the rubber plate is covered on both sides it is tougher when vulcanized, as the pressure against the metal gives the plate a surface more dense than it will have if vulcanized in contact with plaster.

Price ......per sheet \$1.55

## "CHEMICALLY PURE" TIN FOIL No. 60

Much time can be saved in finishing vulcanite and celluloid plates by covering the wax base-plate before flasking with our "Chemically Pure" No. 60 Tin Foil. It is tough and soft, easily adapted to the wax, and readily stripped off after the plate is cured, leaving a smooth, polished surface, requiring only a little work on the edges and a touch here and there. It is also excellent for reproducing the rugæ by pressing a small piece of the foil over the rugæ of the model with the thumb, filling in with wax in giving the finishing touches to the waxing. After the vulcanization the foil is stripped off, leaving a perfect reproduction of the patient's rugæ.





This set of instruments specially adapted to their work will facilitate the packing of rubber and save time to the dentist.

Price ......each \$0.25

# AIR-CHAMBER PATTERNS

Each form of our Air-chamber Patterns is made in both thicknesses, affording practically a choice of twelve styles. They are put up in boxes containing a dozen each, either of separate numbers or assorted thin or assorted thick.

Price,	Thick	5											 									 		 		 2		 	pe	r	d	oz.	\$0	).20	
**	Thin		• •	•	 	• •			•	• •	 •	1.0	 				•	•			• •	 		 		-				**	•			.15	

# CHAMBER METAL

THICK, No. 15, and THIN, No. 17, B. & S. GAGE

Put up in Envelopes containing ½ lb. .....per lb. \$0.25



Vulcanite Scrapers with Light Wood Handles .....each \$0.25

## **VULCANITE FINISHERS**

These three forms of Vulcanite Finishers afford facilities for fine work not found in the larger sizes. No. 21 is a thin, narrow chisel for paring the labial surfaces, margins, and edges of a vulcanite (or cast) plate. No. 22 is a pointed side-cutting tool for carving smoothly between the teeth; the parts most difficult to shape and finish. No. 23 is for palatal and generally efficient work. Finely finished; the handles like those we have made for the Kingsley Finishers for years, to afford a firm non-cramping grasp. Taken altogether, this finishing set will be found to pleasingly supplement the preparatory work of the burs, files, and scrapers.

Price ......each \$0.30

## VULCANITE CARVER CHISEL

Suggested by Dr. H. H. BURCHARD

In the carving of vulcanite dentures for the production of artistic effects, smaller forms of Chisels allow of a delicacy of manipulation impossible with a large instrument, on account of the perfect control of the smaller blade.

The Carver Chisel No. 24, here illustrated, is an excellent example. With it the most accurate paring and shaving of the vulcanite is readily accomplished. The cutting edge has a two-step bevel to facilitate clearance. Apple-wood handle.

Price ...... \$0.30

## **VULCANITE TRIMMERS**

Designed by Dr. CHARLES E. PEARSON



The blades of these instruments are keen and sharp edged, and adapted for trimming in the interstices. The handle fits the palm of the hand, and the thumb drops naturally into the angle formed by the blade and shaft. The bayonet shape also gives the cutting edges wider and more exact application. We have thus all the factors for delicate manipulation.

Three forms. No. 25 has a square edge, and Nos. 26 and 27 have oblique edges, right and left. The wood handles are flattened at one side to prevent rolling when laid down.

## **VULCANITE FINISHERS**

From patterns furnished to us by DR. NORMAN W. KINGSLEY



instruments have been before the profession for over thirty years, and no change for their improvement has been suggested, either in the handles, formed for ease and accuracy of work, or the blades. The latter, which are concaved, with thin edges, will not cut into the vulcanite, but will smoothly and rapidly carve the surface to the extent and form desired.

These admirably shaped

Because of their shape the blades retain their edge for long service and are easily ground when necessary.

These Vulcanite Finishers are supplied in two

styles, the only difference being in the handles, and the prices. In the finer set the ferrule joints are shouldered even with the steel and wood as shown in the illustration of No. 1. In No. 2 another handle of the same form, but with the blade driven in, is shown.



## FLEXIBLE WIRE BRUSH



Suggested by Dr. T. M. HUNTER

# PLATE BRUSHES (BONE HANDLES)



## PRICES

Three	Rows				 		 	 • •					 				• •		 	 		 		•	 	 each	\$0.2	5
Four	"	3					 				 		 							 		 	 		 	"	.3	5
Five	"			 •	 •	• •	• •			 	 •	 	 		• •	•		• •		 • •	•	 	 	:	 	"	.4	0

## SPIRAL SAWS



The Spiral Saw is merely a thin, flat steel spring, not much wider than a watch spring, twisted into a spiral, with saw teeth cut along one edge, which cuts rapidly in any and every direction.

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Heretofore, blades for saw frames have cut on one edge only or on opposite edges.

The spiral saw is all edge, cuts in all directions equally well, sidewise as well as forward or backward. In whatever way you turn it there are the cutting teeth.

Useful in cutting out sections of vulcanite to facilitate repairs, making regulating appliances, shaping plaster models and removing them from the articulator,—wherever a thin, strong, rapidcutting saw blade is indicated.

Spiral Saws are five inches long over all, saw out evenly for about 3½ inches, with the ends fitted to engage with our Mechanical Saw Frames.

## MECHANICAL SAW FRAME



This frame is made specially for our sales, and will consequently be found durable; the set screws A and B will hold the saws firmly, and by turning the nut C backward tension on the saw is increased so as to prevent springing or bending.

## 25

## BENCH BLOCK

Devised by DR. E. R. MAGNUS



The advantages of this device are appreciable at a glance. The frame is made of cast iron (gray, nickel finish), surmounted by a chilled-face anvil. It carries a thick block of par-vulcanized rubber, which for the purpose of a filing block is greatly superior to any other material. The frame can be fastened to the laboratory or office bench by the three screws which accompany it. The rubber blocks can be replaced when worn. There are two sizes; the large size is 5 inches long over all by  $2\frac{1}{4}$  inches wide. The small size is  $4\frac{5}{8}$  inches long by  $1\frac{5}{8}$  inches wide.

Price,	Large, co	mplete		 		each	\$0.70	
"	Small	"				**	.60	
Rubber	· Blocks,	Large				**	.35	
"	**	Small				**	.25	

## **REVOLVING COMBINATION ANVIL AND BENCH BLOCK**

.15

Devised by G. W. MELOTTE, M.D.S.

This combination tool consists of a hub carrying a casehardened steel anvil, a par-vulcanized rubber block for filing, and a wood block for the same purpose, mounted on a bracket to be fastened to the workbench of the laboratory. It is adjusted by pulling out the hub slightly, revolving it until the proper appliance is in position, then releasing, when it is held firmly as placed by a friction clutch. The bracket also affords a hammering surface.

Price, complete	•••••••	\$3.00
	DUPLICATE PARTS	
Brackets	each	\$0.50
Anvils		1.00
Rubber Blocks .		.35

The S. S. White Dental Manufacturing Co. Sole Sales Agent for the Dental Trade for all countries except the United Kingdom of Great Britain and Ireland





Wood

## **RUBBER APRON**

Our Rubber Aprons are 43 inches long and 34 inches wide at the middle line,—big enough to afford ample protection to the clothing, not big enough to interfere with freedom of movement. Can be put on and taken off almost instantaneously.

Made of rubber cloth, and nicely finished, with the edges bound.

## FILES FOR VULCANITE WORK

For forty years or more our standard Vulcanite Files have also been the dental world's standard. Why? Well, because of their quality. They are hand forged, of the best file steel; they are cut carefully, and they are tempered perfectly. You will find the serrations uniform, each series carried in a straight line from shoulder to point, not haphazard. You will find also in a double-end file that the serrations in the two ends differ, affording a coarser and a finer cut. You will find, thirdly, that they are tempered to their work.

These are the causes which make these files durable. They cut rapidly to begin with and they keep on cutting rapidly, never faltering in the good work until they reach a good old age of satisfactory service.

The reverse sides are cut just as perfectly as the faces shown.

## Double End, Half Round

The illustration B gives a full-size view of B 7-inch File.

Price,	7	inch					•			 • •				-			•					 •				. (	each	\$1	0.20	
	8	**		 																						÷.,	**		.22	2
••	9	**				•	• ;		•		•	-		•	• •	 •	•			•	• •	 •	•		•		. **		.24	ł

## Round (Known as "Rat-Tail")

Price,	4	inch		 	-			-	•	 	-			•	•							-		 each	\$0.14	
"	5	"											-	 										**	.16	
	6	"					•					 		• •			 					•	 	**	.18	

## CIRCULAR STEEL FILES



In cutting down the rough surface of a vulcanite plate, they combine the efficiency of a file with the rapid work of a lathe.

Diameter, width and cut as shown.

Adapted to Lathe Chuck No. 8.

Price ......each \$1.25

UNIQUE LATHE HEAD

This Lathe Head is simple in operation, accurate in motion, and durable.

These are its special points of value:

Coned bearings on the spindle,-one fixed, the other adjustable to take up wear,-the whole held in adjustment by a split jam nut. One end carries a threaded cone; the other is fitted to receive our regular set of Laboratory lathe chucks.

Journals Spindle protected from dust



The Pulley, which has two grooves for different speeds, is hollow to afford lightness, with the outer rim rounded to offer a safe grasp for the hand.

A brief inspection of the sectional view will show the excellence of the design. A is the jam nut, B the fixed coned bearing, C the adjustable. The oil chambers are placed at the coned bearings. The frame is substantial, contributing not a little to steadiness of motion. The workmanship is of a character to carry out the design, and the appliance is simple, accurate, smooth and true running and durable-the best Lathe head at the service of the dentist.



Sectional View, showing details of Construction PRICES

## LATHE CORD AND COUPLINGS



The Lathe Cord or Belting is round, 3-inch diameter, made of the finest white oak-tanned leather. It is strong and durable; so good and satisfactory that in all the years we have been selling it, we have never had a complaint about it.

The Couplings are two sockets knuckled together so as to form a flexible elbow. The sockets are threaded, and of a size somewhat smaller than the Belting. To make a belt for a lathe the Belting is cut to the proper length, the ends are dressed down to enter the sockets, and then screwed into them. The endless belt so made runs smoothly and easily, without jumping.

or Leather Belting ...... " foot .03





Nos. 1, 2, 3 are for corundum wheels, which are fastened on with shellac. No. 1 carries wheels Nos. 00 to 4. No. 2 carries Nos. 5, 6, 7. No. 3 carries Nos. 8, 9, 10.

No. 4 is a screw cone, very convenient for felt wheels and cones.

No. 5, collar-and-nut Chuck for brush wheels, cotton wheels, etc.

Nos. 6, 7, 8, collar-and-screw Chucks for corundum wheels. No. 6 carries Nos. 00 to 4; No. 7 carries Nos. 5, 6, 7, and No. 8 carries Nos. 8, 9, 10.

No. 10 is a split Chuck for carrying Engine Bits. It is adapted to our Unique and Office and Laboratory Lathes. If desired for bits carried by No. 6 Hand Piece, please specify.

These Chucks are also adapted to Mandrel No. 4 of the Clutch Lathe Set. In ordering for this use, it should be remembered that the screw of the mandrel carrying Lawrence Lathe chucks differs from that for the Unique and Laboratory chucks. The order should specify which fitting the mandrel has. PRICES

\$0.15	each	. e	 			 *	 				 		 		 		 	 	 		3	2,	, 5	1,	os.	No	ucks
.25	**		 				 				 		 		 		 	 	 		 			4	0.	N	15
.50	**		 				 				 		 		 		 	 	 		 			5	•	-	44
.40	**		 				 				 		 		 	 	 	 	 		 			6	6	-	**
.50	**		 				 				 		 		 			7	6	. 64	4.6						
.60	46		 				 		 		 		 		 	 	 	 	 		 			8	6	- 61	44
1.00			 				 						 											0	• ]	- 61	44

## LATHE BATH, WITH SPONGE

A useful device for keeping the corundum wheel wet while in motion, and for catching the drip. It is of iron, lacquered to prevent rusting.

Price, with sponge ..... \$0.25



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## CONE JOURNAL HAND=AND=FOOT LATHE

The distinctive feature of this Lathe is that it may be operated by hand or foot. It supplies a demand for a *portable* Lathe which shall be capable of doing light or heavy work.

The spindle has a coned bearing, and carries a chuck, split at both ends, which acts as a double clamp for holding the mandrels.

The three Mandrels and one Chuck illustrated accompany the Lathe.

Traveling dentists will find this Lathe a valuable addition to their outfit; it can be packed in a space  $5 \ge 6\frac{3}{4} \ge 13$ inches. Weight about eight pounds.

Mandrel No. 4 w i 1 l carry any of the chucks for Office and Laboratory Lathes; No. 5 is suitable for corundum wheels; No. 7 is for large corundum wheels, brush wheels, cotton wheels, etc.

Taper-Chuck No. 4 will fit No. 4 Mandrel.

Price.....\$9.00



## SPONGE HOLDER FOR UNIQUE LATHE

Suggested by DR. R. H. NONES



This convenient device for keeping corundum wheels wet consists of a wire loop with an arm bent at right angles for attachment by means of a screw socket to the Unique Lathe. The loop is large enough to carry a good-sized sponge, has all the necessary movements, and can be locked securely in any position with the thumb screw. It is attached by removing the oil cup from the side of the lathe which carries the lathe chucks, and screwing the socket into its place. Should the journal on this side require lubricating while the Sponge Holder is in use, lift out the stem and pour a few drops of oil down the hollow socket.

Price, without Sponge, \$0.30



## VULCANITE BURS

These four styles of bur-heads for trimming and dressing vulcanite plates are each made on the three different forms of shanks shown with Nos. 1, 3, and 4. You can thus get any of the shapes of bur heads for use in any of the Lathes named below. In making selections bear in mind that—

- No. 1 shows the shank for United States and Lawrence Lathe Heads.
- No. 3 shows the shank for S. S. White Laboratory and Unique Lathe Heads.
- No. 4 shows the shank for Conejournal Lathe Head.

In ordering be careful to specify the Lathe for which they are wanted.

Price ........each \$1.25

# LATHE ARBOR FOR SANDPAPER, ETC.



This Arbor is made of brass. After cutting the sand, emery, or other paper to proper size, say two and one-half inches square, one edge of it is slipped into the groove and the paper is wrapped around the Arbor. It will be held in place by the motion of the Lathe.

Made to fit our Unique and Office and Laboratory Lathe Heads and Mandrell No. 4 for the Clutch Lathe Head. In ordering, specify the Lathe on which it is to be used.



Price

## STEEL WIRE WHEEL No. 2

Suggested by DR. J. M. WHITNEY

For cleaning engine tools (burs), files, spatulas, spoon excavators, etc., and dressing down celluloid and rubber plates. It is shown full size; 1§ inches in diameter, two rows of fine steel wire.

## SOFT RUBBER WHEELS AND CONES





в



Designed for finishing vulcanite and metal dentures. Cones D and E will be found efficient in finishing the palatal and labial parts of the denture, and the wheels A, B, and C for finishing between the teeth, making festoons, etc.

Wheels A, B, and C can be mounted upon mandrels No. 303 and No. 321, and then used in either the engine or lathe.

### PRICES

Wheels A, B, and C	each	\$0.05
Cones D and E		.15



## CHAMOIS POLISHING WHEELS

These Wheels are composed of several thicknesses of soft dressed chamois skin sewn together, so that, while the rim has sufficient flexibility to adapt it to the uneven surfaces of dental plates, it has firmness enough to keep it in proper form when used on the lathe.

By the use of these Wheels a great deal of time and labor will be saved in polishing crown and bridge work, and all-metal dental plates.

To obtain the best results, use the finest quality of rouge. Made in three sizes.

## PRICES

No.	1.	2	inches	in	diameter				.,		2		÷.	.\$	0.25
**	2.	$2\frac{1}{2}$	"	**	"									-	.35
"	3.	3		••	••		• •						 ÷	- 1	.40



## SPERM OIL

The pure article, an excellent lubricant for laboratory purposes.

## SHELLAC FOR MOUNTING

For convenience in mounting Corundum Wheels on Lathe Chucks, we supply shellac prepared in sticks 4-inch diameter, 3 inches long, put up in boxes of one dozen. Also in powder, which some prefer, for the same purpose.

| Price, in | Sticks . | <br> | .per box | \$0.25 |
|-----------|----------|------|------|------|------|------|------|------|----------|--------|
| ** **     | Powder   | <br> | . "      | .10    |

# **BRUSH WHEELS**

The Superiority of our Brush Wheels has been abundantly demonstrated Properly made, bristles of best quality securely fixed in the hubs

# Straight Bristles. Style of No. 26

No.	Rows	Bristles	Dian	neter							Each
3.	1	Stiff	14	in.							
4.	1	**	17	66	8	•					\$0.10
2.	2	**	14	** *	ŝ						
6.	2	Medium	17	**	Ļ						.12
9.	2	Stiff	12	**	1	1	•	 -	•	*	 .12
55.	2	**	31		1						0.7
17.	3	**	2	46 -	2	•		 •		*	 .35
18.	3	Soft	2	**	5	•					 .20
25.	3	Stiff	23	"							
26.	3	Soft	23	11	-	•	• •				 .25
29.	4	Stiff	3	4 3							
30.	4	Soft	3	"		• •	•		÷.,		.35

# Converging Bristles. Style of No. 27

No.	Rows	Bristles	Dian	aeter					Eaoh
1.	2	Stiff	11	in.					Laon
5.	2	**	14						
7.	2	Soft	14	**	3	 			\$0.12
8.	2	Medium		**					
11.	2	Soft	17		J				
12.	2	Stiff	17	"	)				
13.	2	Medium	17	**	5.	 • •		• •	.15
20.	2	Stiff	24		,				
15.	3	"	22	44					20
16.	3	Medium	2			 • •		• •	.20
23.	3	Stiff	24	"					
24.		Medium	24	44 \$		 		-	.25
47.		Soft	3	"					
48.		Stiff	3	. 1		 	-		.30
27.	4	"	3	)					
			0		•	 			.35



No. 26



No. 27





No. "	51. 65.	22	A	SULL	shape B Bristles, "	1 12 1	mahaa	the second se	ter	• • • • • • • • • • • •	· · · · · ·	of No. 65	15
						- 0				• • • • • • • • • • • •	• • • • • • •		20
	_		:	Strai	ght Bri	stle	s, Lo	ng W	lood S	hanks. S	tyle o	f No. 66	

NO.	52.	2	Rows,	Stiff	Bristles,	11	inches	diameter		
	66.	2	**	"	"	17	**	"		.15
						~			***************************************	.20

.

# FELT WHEELS AND CONES

Hard Centers

Made of stock selected with a view to its special fitness for polishing: flexible, dense, and withal soft,-but not spongy.





# **COTTON WHEELS**

No.	80.	2	Rows,	14	inches	diameter	each	\$0.15
"	81.	2	**	2	54	"	**	.15
	82.	2	"	$2\frac{a}{4}$	"	"	**	.20
"	83.	3	"	$2\frac{n}{4}$	**	"	**	.30
"	84.	4	44	3	65	**	**	.35

CORUNDUM WHEELS

Notwithstanding the introduction during late years of abrasives claimed to be more efficient than Corundum, the fact remains that Corundum, in many ways, is still the best grinder. It cuts smoothly, evenly, cleanly. You can work with exactness in grinding porcelain, glass, minerals, iron, or steel. There are two rules for the use of Corundum Wheels: Run them wet, and keep grease away from their cutting faces.

For the Corundum Wheels of our make we claim greater abrasive power and general effectiveness than others possess, because ours are made of carefully selected crystals, and every stage of their manufacture is conducted with scrupulous fidelity.

We carry in stock Corundum Wheels, in three grits, known as Fine ("B"), Medium ("C"), and Regular ("D").

"B" is for fine jointing

"C" for ordinary work

"D" for rapid and rough cutting

Orders should specify "Fine," "Medium," or "Regular," or state the letter of grit desired.



## PRICE LIST OF CORUNDUM WHEELS

			THICKNESS OF WHEELS IN INCHES											
00 0 1	No.	Diameter	AND LESS	3/8	1/2	5%	3⁄4	1						
1 2	00	34 inch	\$0.05											
3	0	7/8	.05	\$0.08	\$0,12	\$0.14	\$0.16	\$0.20						
4	2	13/8	.12	.14	.16	.18	.20	.24						
5	8	158 "	.12	.14	.16	.18	.20	.24						
	- 4-5	134	.12	.14	.16	.18	.20	.24						
6	- 5	21/8	.18	.25	.30	.35	.40	.50						
	6	21/ "	.18	.25	.30	.35	.40	.50						
7	7	$2\frac{1}{8}$ $2\frac{1}{2}$ $3\frac{1}{8}$	.30	.40	.50	.60	.70	.80						

The 1-inch Wheels Nos. 0 to 7 are made both round and square edge. All others square edge only.

Larger sizes of Corundum Wheels than those listed for various mechanical purposes made to order.

DEPRESSED CENTER CORUNDUM WHEEL (Illustration Full Size)

CORUNDUM ARTICULATING WHEEL

Price ... each \$0.15



Price .....

## CORUNDUM CUPS AND CONES





Small Cup Price, \$0.12

Large Cup Price, \$0.15

Corundum Cups and Cones in shapes and sizes as shown above enable the dentist to easily and conveniently grind surfaces which are of difficult access to wheels of any size.

## "GEM WHEELS" FOR LATHE

The "Gum" Wheels for lathe work have great abrasive power, whether run wet or dry, and durability. They are homogeneously hard throughout, and cut aggressively in every portion. They are all square edge, and { inch in





thickness or slightly less.

PRICES

No.	Di	amete	r	1	Thicks inch a	
00	3	inch	1)			
0	1		5		each \$	\$0.10
1	1	66	)			
2	18	**	)			
3	18	66	5		**	.20
4	17	**	)			
5	21	66	í			
6	24	66	1			.40
7	31	**	-		**	.50
Artie	culati	ng V	Vhe	el	**	.30
Se		ge.			size	and
shap						
		Can O	-	1	two for	

Grits, fine and extra fine.

## POLISHING POWDERS

These Polishing Powders embrace a wide range of grits, from the coarser to be used in the first stages, to the finest for the finishing up of the work. Used with felt and leather buffs, wood points and disks, hard-rubber disks, soft-rubber disks, chamois polishing wheels, etc. P

Price,	Arkansas Stone Powder	per	box \$	30.15	Price,	Pumice Stone, Fine or	
**	Chalk, Prepared	**	lb.	.15		Coarse, per lb. \$0.10per box \$0.10	
**	Crocus	** ]	box	.15		Pumice Stone Flour (very	
	Corundum Flour					Pumice Stone Flour (very fine)	
**	" Extra Fine	**	66	.15	66	Rottenstone	
66	Emery	**	66	.15	**	Rouge	
	Polishing Putty, Oxid of Tin			.15	**	Tripoli " " .15	

## ABRADA

Abrada preparations are simply efficient polishers and grinders put together with a "binder" of a character that, while not interfering with their work, makes them cleanly, convenient, and economical. There are no better grinders and polishers for vulcanite and metal plates than Abrada.

## No. 1, Fine, for Polishing; No. 2, Medium, for Grinding

Abrada is put up in oval sticks, 4 x 14 x 3 inches, each stick in a separate box, neatly labeled. Price, Nos. 1 and 2 ......each \$0.15

## STICK ROUGE

For convenience and cleanliness of handling we put a fine quality of Rouge up with a binder, made into sticks, which are wrapped in tin foil. The sticks are half round in shape, something over 3 inches in length by a inch diameter across the flat. Stripping the foil from the stick as it is used and applying the end to the moving polishing wheel will prove economical, besides being cleanly and convenient. The excellence of Rouge for polishing metals needs no restating here.



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# Is Increased Efficiency of Any Value to You?

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