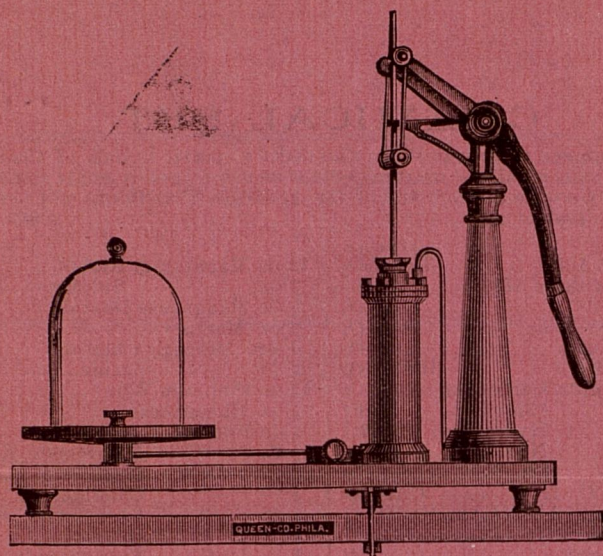


47-M-64



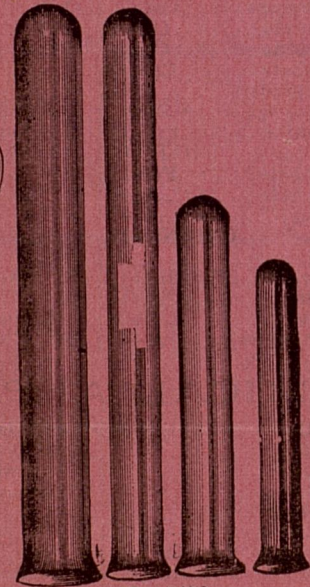
**Lever Air-Pump.** Barrel of brass, seven and a half inches long, and two inches in diameter. Plate of brass, eight inches in diameter; with guard-screw, stop-cock, and half-gallon bell-glass receiver. Base and pillar of polished walnut. . . . . \$40.00



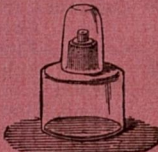
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No. 2700.



No. 2150.



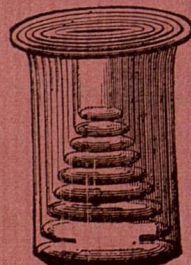
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No. 2300.



No. 2130.



No. 2050.



No. 2100.

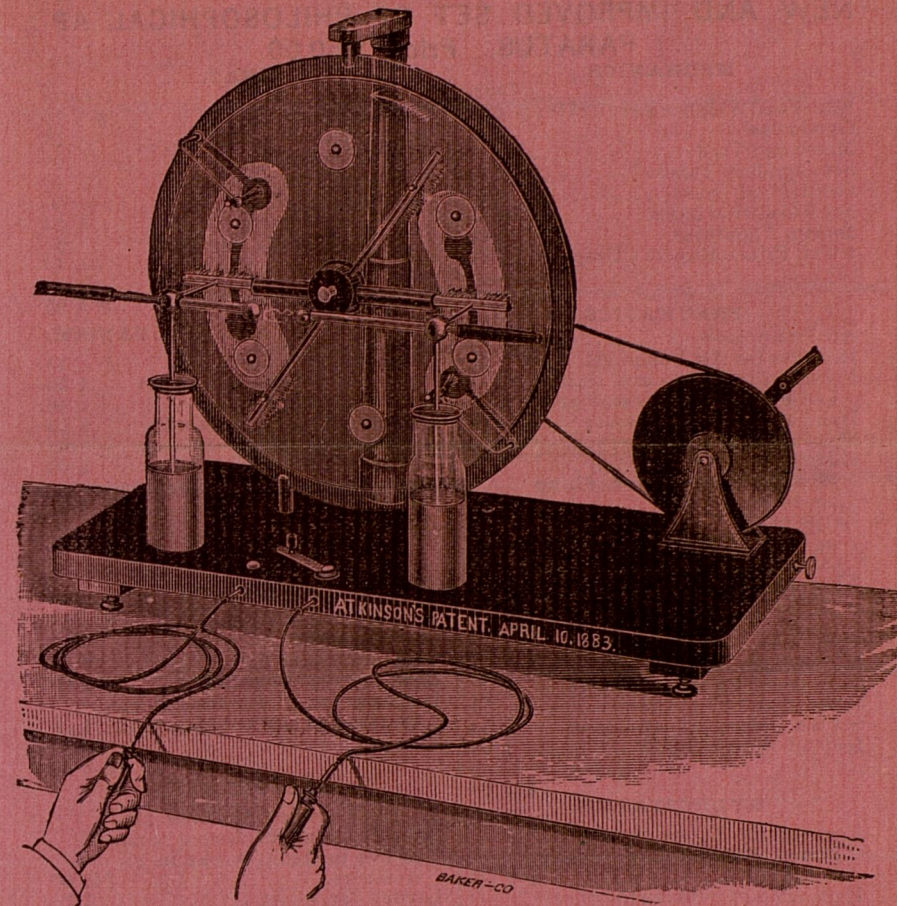


No. 2120.



No. 2320.

Address— W. A. OLMSTED, 182 Wabash Ave., Chicago.



### IMPROVED TOEPLER ELECTRIC MACHINE.

**THIS** machine generates Static Electricity by friction, induction and transfer, acting in union. It is especially adapted to experimental work in the school-room and laboratory, as it remains in practical working order under the most unfavorable atmospheric conditions. Its action is automatic, instantaneous, and constant, requiring no initial charge. Its special features are two plates of glass, one stationary and one revolving; the latter carrying six metal discs, brought into contact with four wire brushes, and acting by induction and transfer on a series of discs and connectors; two pairs of combs; two Leyden jars; two sliding electrodes; a switch with cords, handles, and connections; a driving-wheel and clamp, and a belt running thence to a small pulley for speed. The wood-work is ebonized and finely polished, and the brass nickel-plated and burnished. The driving wheel has a special contrivance for tightening the belt. The outside coatings of the Leyden jars are of nickel-plated sheet brass, screwed firmly to the base and connecting with the switch. The brush-holders and the stationary plate pass through it, affording a direct path to the electricity, and avoiding the loss by clamps or ears on its edge. The plates are firmly clamped, and cannot get out of position. The discs on the revolving plate are of brass, nickel-plated, and not liable to become defaced like tin-foil. The Switch is an entirely new feature of the highest importance, as it brings into practical use the induced current between the jars, giving the Faradic effect, and also showing the induced spark simultaneously with the direct spark. The display at night is of unsurpassed beauty: brushes and pencils of light stream and flash from every part; sparks seven inches long, dart between the electrodes like miniature chain lightning; while at every flash the rapidly moving discs on the revolving plate stand out as perfect in form as if motionless, thus proving that the spark is absolutely instantaneous.

### PRICES.

With Glass Plate, 12 and 14 inch. diam., respectively,	\$40 00	With Glass Plate, 25 and 29 inch. diam., respectively,	\$150 00
With Glass Plate, 16 and 18 inch. diam., respectively,	70 00	Special Apparatus for Illustration Furnished to Order.	

Address,

W. A. OLMSTED,

182 Wabash Ave., Chicago.