

No. 725,499.

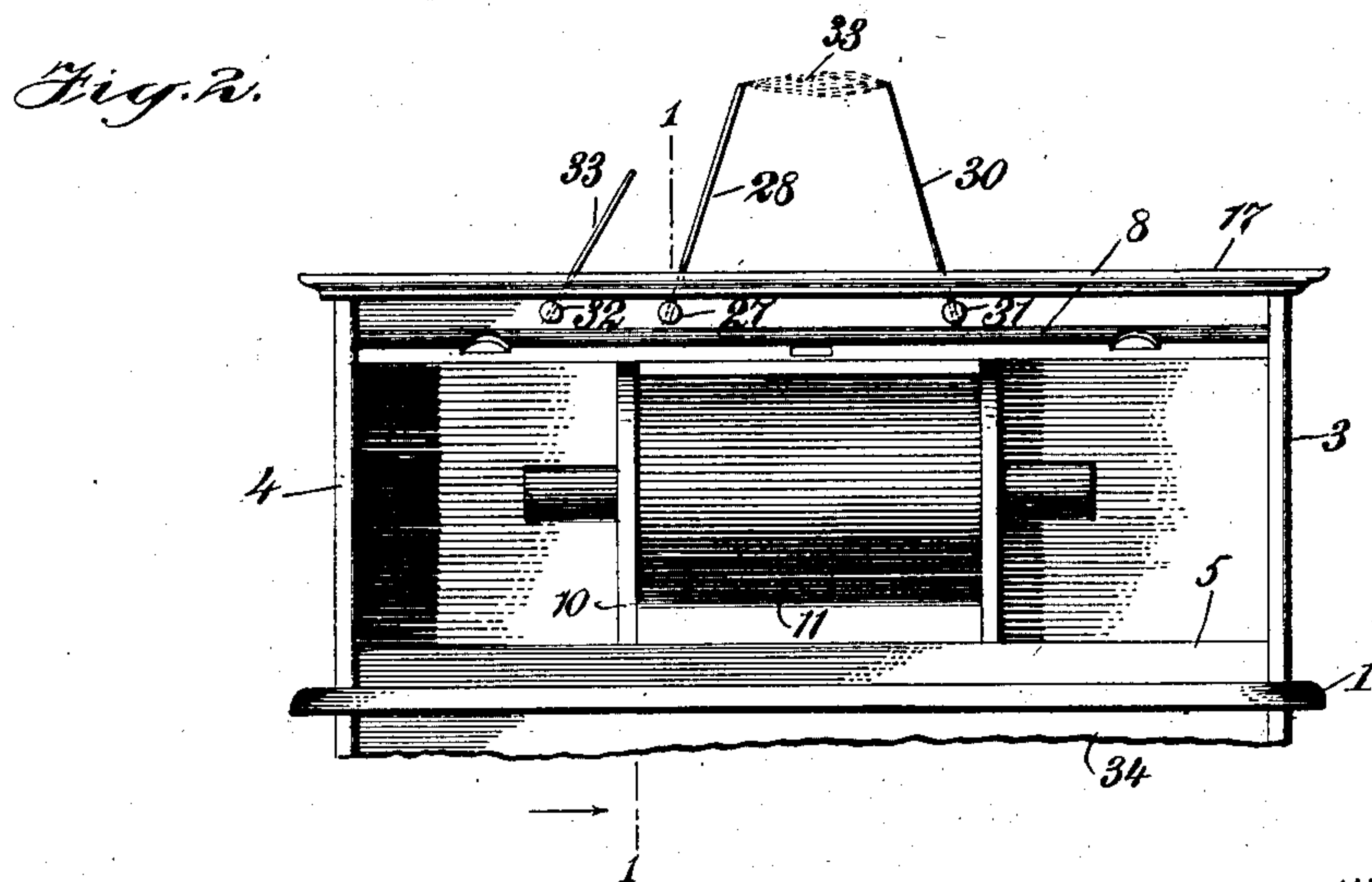
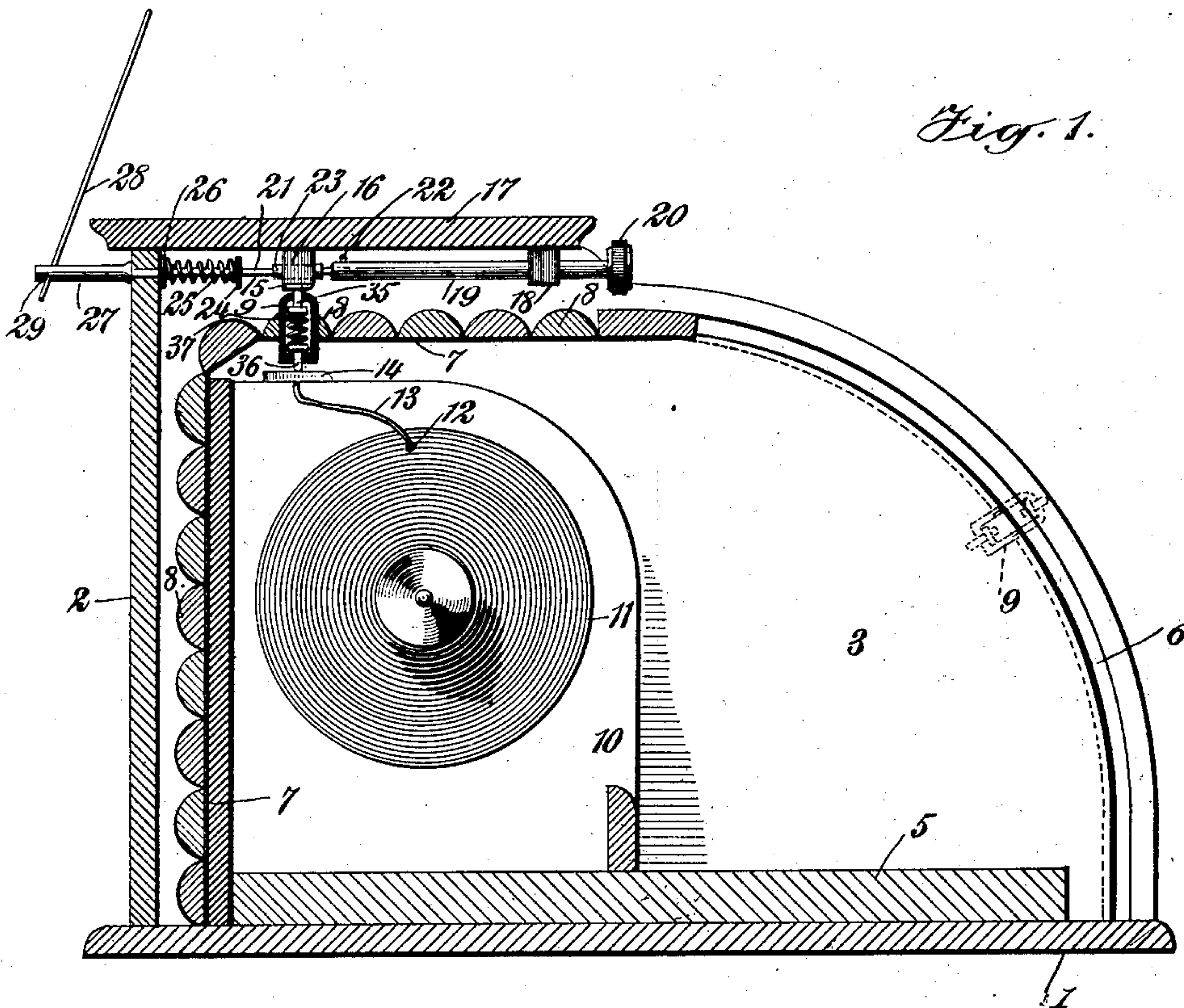
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H. R. SMITH.

DESK FOR X-RAY APPARATUS OR THE LIKE.

APPLICATION FILED JULY 10, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HORACE RAWLINS SMITH, OF ALTOONA, PENNSYLVANIA.

## DESK FOR X-RAY APPARATUS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 725,499, dated April 14, 1903.

Application filed July 10, 1902. Serial No. 115,053. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE RAWLINS SMITH, a citizen of the United States, and a resident of Altoona, in the county of Blair and State of Pennsylvania, have invented a new and Improved Desk for X-Ray Apparatus or the Like, of which the following is a full, clear, and exact description.

My invention relates to a desk suitable for housing electrical apparatus having currents of high potential—such, for instance, as Ruhmkorff coils, oscillators, &c.—and which is particularly suitable for instruments used in X-ray work, as well as wireless-telegraphic instruments, &c.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures. Figure 1 is a vertical section, somewhat enlarged, upon the line 1 1 of Fig. 2 looking in the direction of the arrow and showing my invention as applied to an ordinary desk; and Fig. 2 is a front elevation of the desk when open and in use.

The desk comprises the bottom 1, back 2, and end pieces 3 4, these parts being of the usual pattern. A base-plate 5 may be placed within the desk to be used as a support for some of the instruments. The side pieces or panels 3 4 are provided with curved tracks 6, as shown more particularly in Fig. 1. A curtain consisting of a flexible web 7, to which are secured the rods 8, preferably half-round in form, is slidably mounted within the desk, so that the ends of the rods engage the tracks 6 in the usual manner. One of the half-round rods or slats 8 is provided with a plurality of hollow sleeves 9, made, preferably, of vulcanite and used for the purpose of holding spring-contacts, as hereinafter described. Brackets 10 are used for the purpose of supporting the Ruhmkorff coil 11. Through holes 12 in the respective ends of the coil the wires 13 lead upward and backward and are connected with stationary contacts 14, preferably beveled, as indicated in Fig. 1. Other stationary contacts 15 are connected with the top 17 of the desk, being preferably mounted upon a panel 16, of insulating material. Through another panel 18 passes a rod 19, of vulcanite, provided with a handle 20, as shown

more particularly in Fig. 1. This insulating-rod 19 is connected directly with a metallic rod 21 by means of the screw 22. The rod 21 passes through an insulating-sleeve 23 and is movable therein.

Upon the rod 21 is mounted a button 24, preferably of vulcanite. Against this button a spiral spring 25 presses at one end, its other end engaging an insulating-washer 26. The rod 21 terminates in a revoluble head 27, to which an electrode 28 is connected, the electrode preferably passing through a hole 29 in the head 27. Any number of these electrodes 28 30 33, provided with rods having heads 27, 31, and 32, may be employed. While I show three such rods and handles in Fig. 2, I do not limit myself to this particular number; neither do I limit myself to this particular construction of the rods and handles. Between the electrodes 28 and 30 the spark 33<sup>a</sup> may be produced, or these electrodes may be connected with any apparatus which is to be highly charged with static electricity—such, for instance, as Crookes tubes, Geissler tubes, &c. The lower portion 34 of the desk has the same construction as that in use with ordinary desks.

Within the vulcanite sleeves 9 are mounted spring-pins 35 36, which are pressed asunder by means of spiral springs 37.

The operation of my device is as follows: The desk being closed in the usual manner, the sleeves 9 occupy the respective positions indicated by dotted lines at the right in Fig. 1. The curtain being moved back in the usual manner, however, brings the sleeves 9 into alinement with the stationary contacts 14 15, so that the rods 21 and electrodes 28 are connected with the terminals of the Ruhmkorff coil 11. The coil is now ready for use. When, however, the desk is closed in the usual manner, the secondary terminals are broken, for the reason that the spring-pins 35 36, together with the sleeves 9, are withdrawn bodily from between the contact-plates 14 15. In this connection it should be observed that the powerful static charges produced by large Ruhmkorff coils are dangerous and are liable to prove fatal if received accidentally. It should be further noted that the secondary terminals should lead as near directly as possible to the points



from which the discharge is to be utilized, as any sort of circuitous route taken by the secondary wires is liable to cause leakage to occur.

5 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A desk for X-ray apparatus and the like, comprising a hollow member provided with a  
10 movable curtain, stationary contacts disposed adjacent to said curtain, hollow sleeves connected with said curtain, and contact-pins carried by the sleeves for the purpose of engaging said stationary contacts, and means  
15 for connecting an electrical device with said stationary contacts.

2. A desk for X-ray apparatus and the like, comprising a hollow member provided with  
20 tracks, a curtain slidably engaging said tracks, stationary contacts disposed adjacent to the path of said curtain and upon opposite sides thereof, and contacts mounted upon said curtain and free to engage and disengage said stationary contacts when said cur-  
25 tain is moved, the said contacts comprising hollow sleeves made of insulating material, and spring-actuated contact-pins mounted therein.

3. A desk for X-ray apparatus and the like,  
30 comprising a hollow member provided with tracks, a movable curtain consisting of a flexible web provided with parallel longitudinal rods, said rods slidably engaging said tracks, stationary contacts connected with said hol-  
35 low member and disposed adjacent to the path of said curtain, hollow sleeves connected with one of said rods and carrying spring-contacts free to engage said stationary con-  
40 tacts, and means for connecting said station-ary contacts with electrical apparatus.

4. A desk for X-ray apparatus and the like,

comprising a hollow member provided with tracks, a movable curtain consisting of a flexi-  
ble web provided with longitudinal rods, said rods slidably engaging said tracks, one of  
45 said rods being provided with apertures, contacts connected with said hollow member and disposed adjacent to the path of said curtain, and spring-contacts disposed within said aper-  
50 tures and free to engage said contacts connected with said hollow member.

5. A desk for X-ray apparatus and the like, comprising a hollow member, a movable clo-  
sure member therefor, contacts connected with said hollow member and said closure  
55 member, said contacts being free to engage and disengage each other when said closure member is moved, movable insulating-handles connected with said hollow member, and  
60 electrodes connected with said handles and with said contacts upon said hollow member.

6. A desk for X-ray apparatus and the like, comprising a hollow member, a movable clo-  
sure member therefor, stationary contacts dis-  
65 posed adjacent to said closure member, contacts connected with said closure member, and carried thereby for the purpose of engag-  
ing said stationary contacts, means for connecting an electrical device with the station-  
70 ary contacts, rods of insulating material provided with handles and connected with the hollow member, metallic rods connected with said insulating-rods and with the station-  
75 ary contacts, and electrodes connected with heads on said metallic rods.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HORACE RAWLINS SMITH.

Witnesses:

CHARLES S. DOWNS,  
D. K. HOWE.