

May 20, 1924.

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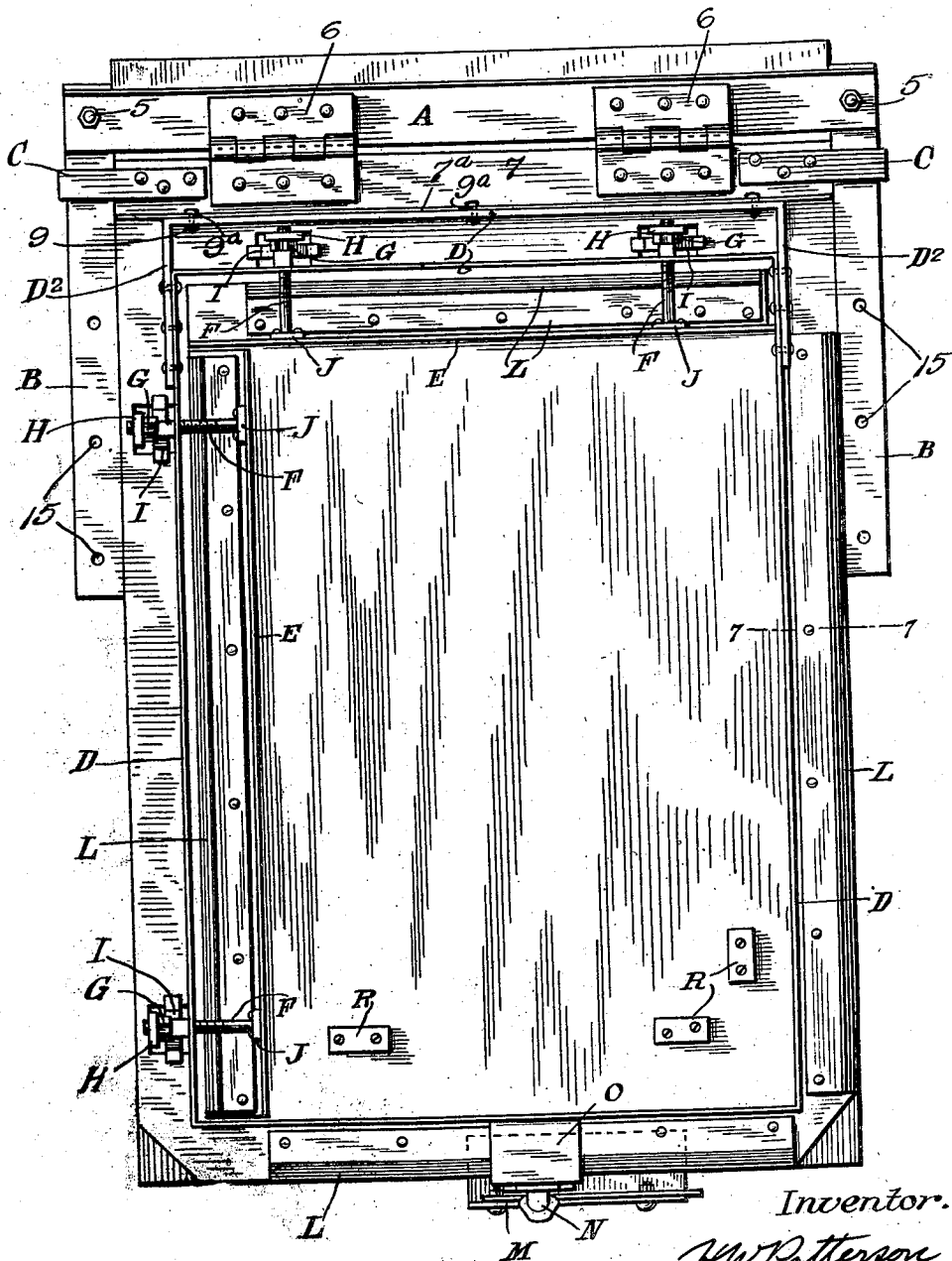
H. W. PATTERSON

STENCILING APPARATUS

Filed Sept. 22, 1922

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Fig. 1.



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Fig. 2

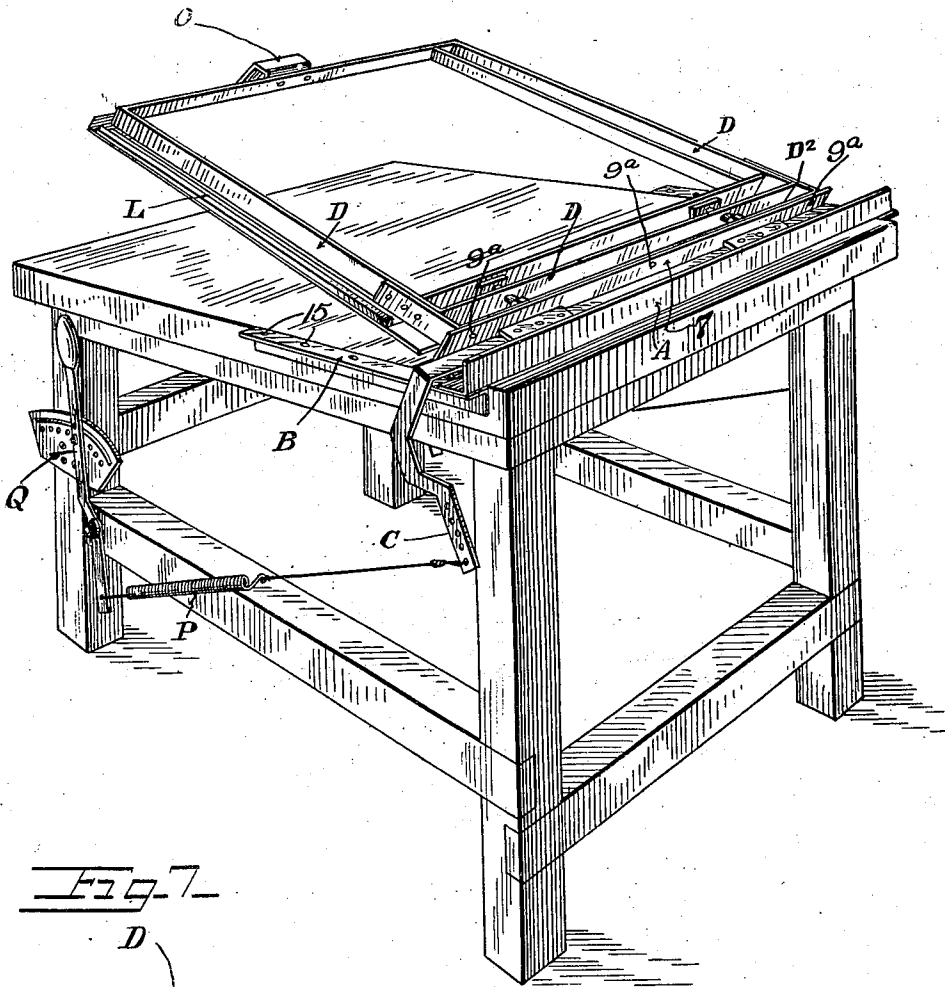
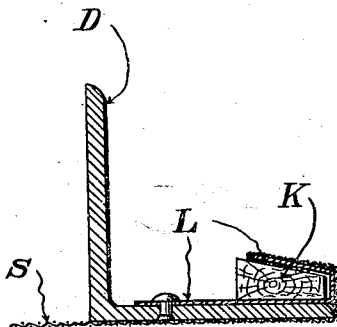


Fig. 7



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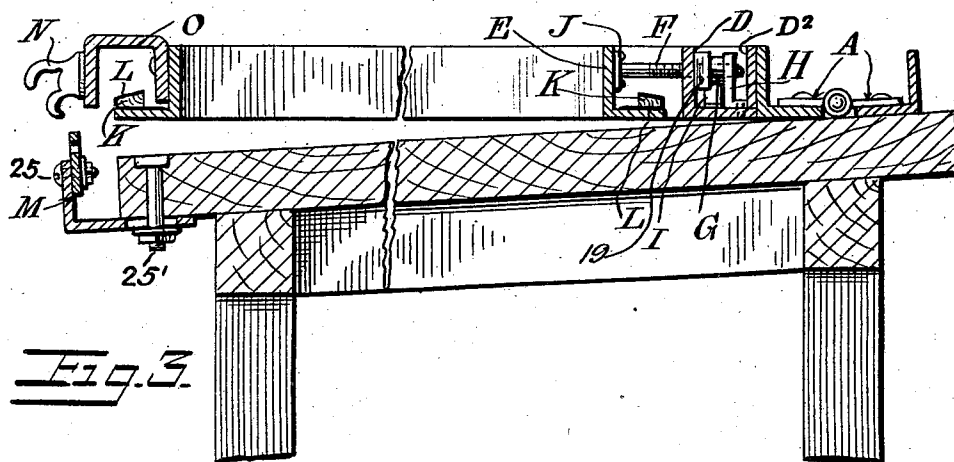
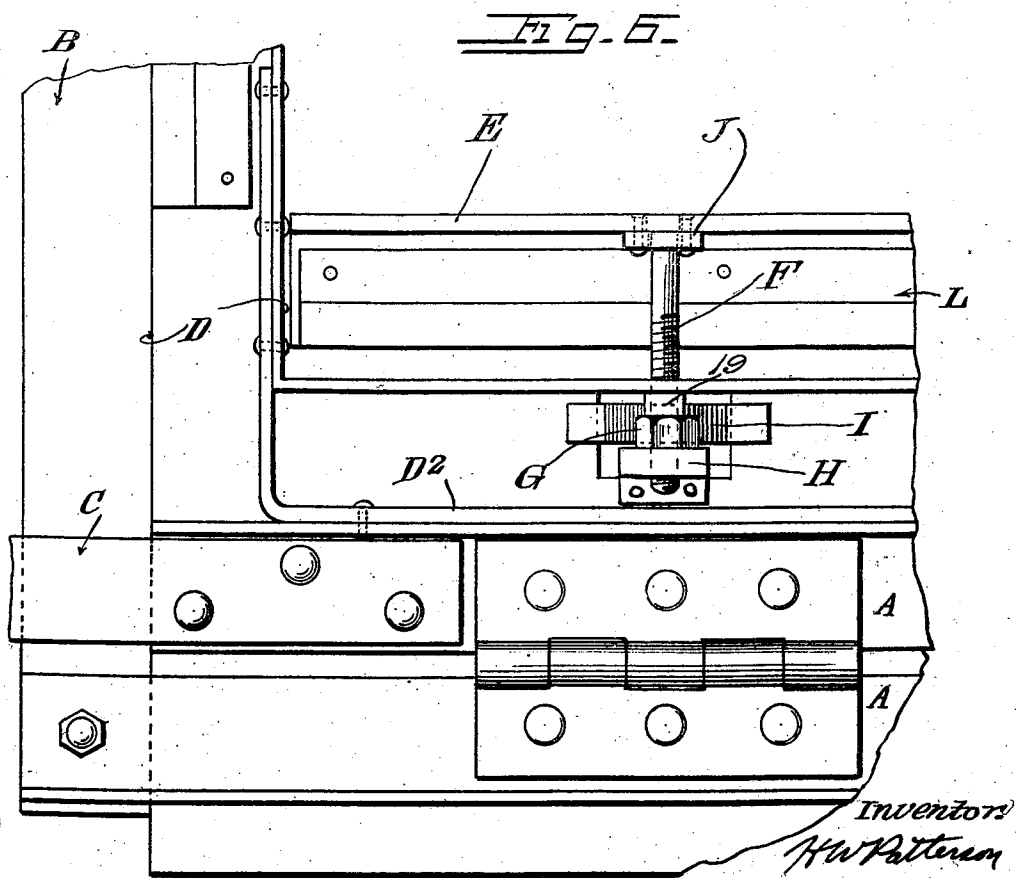
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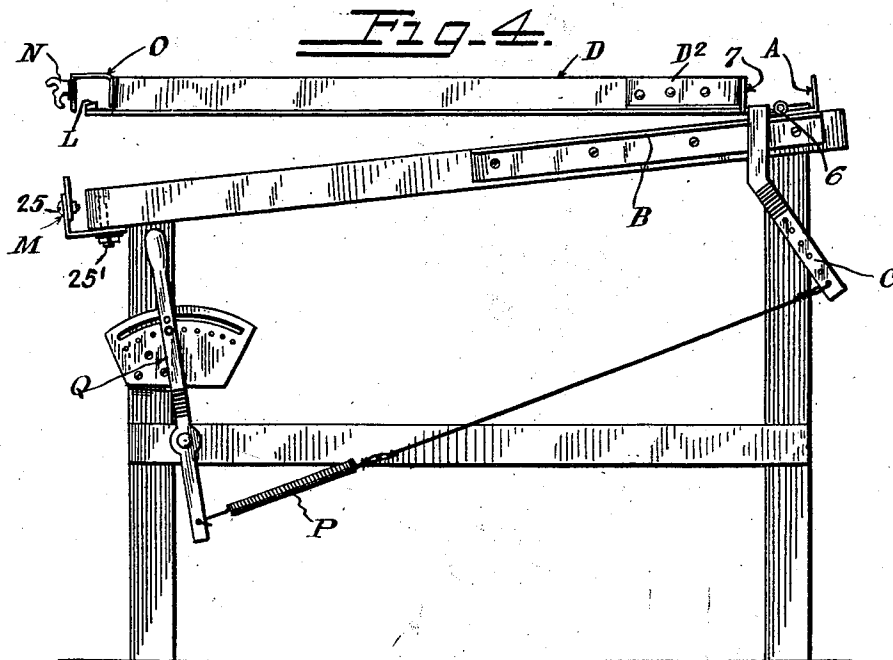
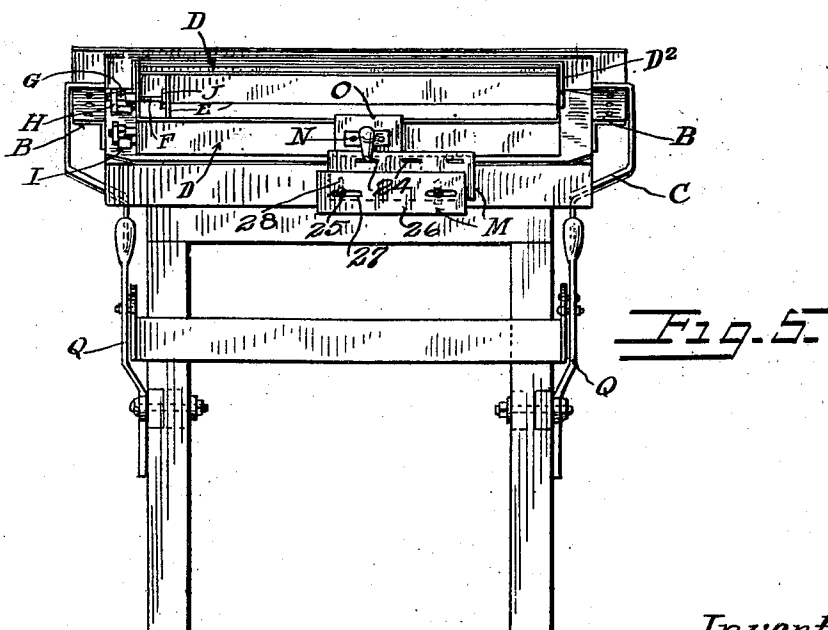
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STENCILING APPARATUS

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Inventor:
H. W. Patterson

UNITED STATES PATENT OFFICE.

HERMAN W. PATTERSON, OF TORONTO, ONTARIO, CANADA.

STENCILING APPARATUS.

Application filed September 22, 1922. Serial No. 589,943.

To all whom it may concern:

Be it known that I, HERMAN W. PATTERSON, of the city of Toronto, in the county of York, Province of Ontario, Canada, a citizen of the United States of America, have invented certain new and useful Improvements in Stenciling Apparatus, of which the following is a specification.

This invention relates to stenciling apparatus and more particularly to that type in which the stenciling screen is carried by a hinged frame and my object is to devise means whereby different lengths and widths of frames may be used on the same table. A further object is to devise means for increasing and decreasing the tension of the screen. Other objects I have in mind will hereinafter appear.

I attain my objects by means of the constructions hereinafter described and illustrated in the accompanying drawings in which

Fig. 1 is a plan view of my improved apparatus;

Fig. 2 a perspective view of the same with the frame partly raised;

Fig. 3 a longitudinal section with the frame partly raised;

Fig. 4 a side elevation showing the frame partly raised;

Fig. 5 a front elevation;

Fig. 6 an enlarged detail in plan showing the construction at the rear left hand corner of the device; and

Fig. 7 a sectional detail of the angle bars used in the general construction of the frame.

In the drawings like characters of reference indicate corresponding parts in the different figures.

On the table is hinged a frame D on which is carried, as hereinafter described, a stenciling screen S. These screens are well known in the art and are formed of open meshed silk through which pigment is forced.

To facilitate the changing of one screen to another and the operation of inserting and removing cards from under the screen, I carry the screen carrying frames D on the table in the following manner. A bar A, formed of angle iron, is transversely secured by means of the bolts 5 on the table and on this bar is hinged, by means of the butt hinges 6, a bar 7. This hinge bar is also formed of angle iron and the upright flange 7^a thereof extends along the front edge of

the bar. The frame D is of angle iron construction which is suitably formed into a rectangular shape and has its laterally extending flanges forming the rim of the frame. A bail D² secured to the sides of the frame D lies along the rear end of the latter. This bail is provided with holes adapted to register with holes formed in the flange 7^a and through these holes pass the bolts 9 whereby the bail D², and thus the frame E, is detachably connected with the hinge bar 7. It is obvious from the above that the hinge bar 7, bail D² and frame D will all swing as one unit on the pintles of the butt hinges 6. To tend to raise the frame and normally hold it in its raised position so that the stenciled work may be removed from under the screen and another card to be stenciled may be positioned under the screen, I secure an arm C at each end of the hinge bar 7. To each arm is connected one end of a cable, the other end of which is connected with one end of a spring P the other end of each spring being connected with one end of a lever Q pivoted in the frame of the apparatus and adapted to adjust the tension of the spring. The front side of the frame is provided with a latch N adapted to engage the keeper M carried by the front side of the table to lock the frame in its operative position as hereinafter more fully described.

It is desirable to produce stencilled work of various sizes by using the same table which necessitates the use of various sized screens as it is necessary to use a screen which corresponds in size with that of the stencilled work. To permit frames having different widths to be used, with the bars A and 7, the flange 7^a is provided with a plurality of holes 9^a, which are spaced apart longitudinally of the bar 7. One of these holes is adapted to register with the hole formed at the corresponding side of each different sized bail D² (see Figure 1). To permit frames having different lengths to be used so that their latches O will engage the keepers M the following means are provided. Towards the rear end of the table and at each side thereof are formed a series of holes 15 so that the bar A may be shifted to bring its holes for the bolts 5 through the registered holes. Preferably the holes 15 are formed in angle iron members B secured to opposite sides of the table. To adjust the tension of the screens S to

register with partly stencilled cards that have shrunk or expanded due to changes in the atmosphere and the action of the pigment on the card and to adjust the tension of the screen to suit different climatic conditions I provide each frame D with movable members E. These members are located at adjacent sides of the frame and are adjusted to and from their adjacent sides in the following manner. Bolts F suitably secured to the members E, by means of anchors J, pass through openings formed in the upwardly extending flanges of the two adjacent sides of the frame D. These bolts also pass through holes formed in the brackets H which are secured to the laterally extending rim of the frame. The brackets are spaced from the upwardly extending flanges of the frame and upon the bolts F, between the brackets and the flanges, are disposed the distance collars 19 and the nuts G. From the above description it is evident that by rotating the nuts in either direction the members F will be moved away from or towards their adjacent fixed ends of the frame. Bent springs I suitably carried by the brackets H are adapted to yieldably engage the nuts G to prevent accidental turning of the latter. The screen is removably carried by means of the channels L secured to the movable frame members E and to the fixed frame members D opposite thereto (see Figs. 3 and 7). Each channel is formed by longitudinally bending upwardly and inwardly one edge of a strip of sheet metal, the inwardly directed portion being inclined to form a tapered channel. In these tapered channels are fitted the wedges K which are glued or otherwise secured to the sides of the screen S. It will be noted that the screen passes under the movable frame member E and the fixed frame members, then over the inclined portions of the channels L then between the under surfaces of the inclined portions and the wedges K and then to the underside of the latter. This arrangement ensures the screen being held firmly on all sides while it is being adjusted as hereinbefore described. The latch O is carried centrally on the forward side of each frame D and the keeper M is provided with a plurality of openings 24, the latch being adapted to engage any one of the openings so that a plurality of frames D having different widths may be used without moving the keeper. The keeper is adjustably carried relatively to the table as follows. At the forward edge of the table is secured, by means of bolts 25', the keeper holder 26 which is formed of angle iron, the laterally extending flange of which is provided with slots through which the bolts 25' pass whereby the holder may be adjusted to and from the front side of the table. The upwardly extending flange of the holder is

also provided with the slots 27 and the keeper is provided with the slots 28 formed at right angles to the slots 27. Through these slots pass the bolts 25 which secure the keeper to the holder when the former is adjusted to permit the latch to engage one of the openings 24. To enable the blanks on which the impression is to be made to be properly positioned on the table, I secure to the table the guides R against which the edges of the blanks may lie.

What I claim is:—

1. In stenciling apparatus, the combination of a table; a bar adapted to be adjusted to and from the front of the table; and a screen carrying frame hingedly and detachably connected with the said bar.

2. In stenciling apparatus, the combination of a table; a bar adapted to be adjusted to and from the front of the table; a bar hinged on the first mentioned bar; and a screen carrying frame detachably connected with the hinged bar.

3. In stenciling apparatus, the combination of a table; a bar adapted to be adjusted to and from the front of the table; a bar hinged on the first mentioned bar and provided with a plurality of holes spaced apart longitudinally of the bar; a screen carrying frame provided with a pair of spaced holes adapted to register with two of the holes in the hinge bar; and bolts passing through the registered holes.

4. In stenciling apparatus, the combination of a table provided with a series of holes at each of two opposite sides thereof; a bar provided with holes adapted to be brought into register with any desired pair of opposite holes formed in the table; bolts passing through the registered holes; and a screen carrying frame hinged on the bar.

5. In stenciling apparatus, the combination of a table provided with a keeper; a bar; a screen carrying frame hingedly and detachably connected with the said bar and provided with a latch adapted to engage the said keeper, the bar being adjustable to and from the front of the table whereby different lengths of frames may be used; and counterbalancing means tending to lift the frame.

6. In stenciling apparatus, the combination of a table; a bar adapted to be adjusted to and from the front of the table; a bar hinged on the first mentioned bar; a screen carrying frame having a fixed end member and a movable frame member; means for adjusting the latter relative to the former; and a bail secured to the said frame and adapted to be detachably connected to the hinged bar.

7. Stenciling apparatus constructed as set forth in claim 1 in which the screen carrying frame is formed of angle iron bent to a rectangular shape and having its laterally extending flanges forming the rim of

the frame; and a bail secured to the frame substantially in alinement with the outer edge of the frame and hingedly and detachably connected with the bar.

5 8. In stenciling apparatus, the combination of a table provided with a keeper having a plurality of openings formed therein; a bar adjustable to and from the front of the table; a bar hinged on the first mentioned bar; a screen carrying frame provided with a latch, the said frame being adapted to be connected with the hinged bar in a suitable position with the latch in position to be engaged in one of said openings.

15 9. Stenciling apparatus constructed as set forth in claim 8 in which a holder is provided for carrying the keeper; means for adjusting the holder to and from the front

of the table; and means for vertically and horizontally adjusting the keeper relative to the holder.

10. A rectangular frame for carrying a stenciling screen having two adjacent sides thereof provided with channels; two movable frame members carried at the sides of the frame opposite the aforesaid sides; channels secured to the movable frame members; a stenciling screen having wedges secured to the sides thereof, the wedges being adapted to be received in the channels; and means for adjusting the movable frame members to tension and slacken the screen.

August 28th, 1922.

H. W. PATTERSON.

Witness:

G. D. BIRCHARD.