No. 785,836. PATENTED MAR. 28, 1905.

A. N. SILL.

BLOTTER.

APPLICATION FILED JULY 22, 1904.

Fig. 1

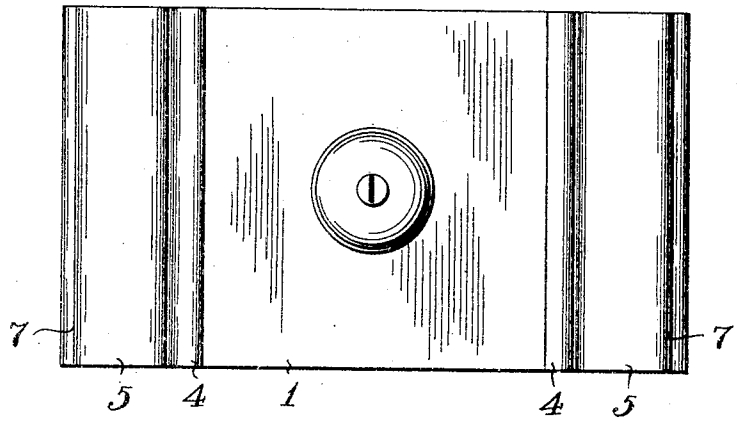


Fig. 2

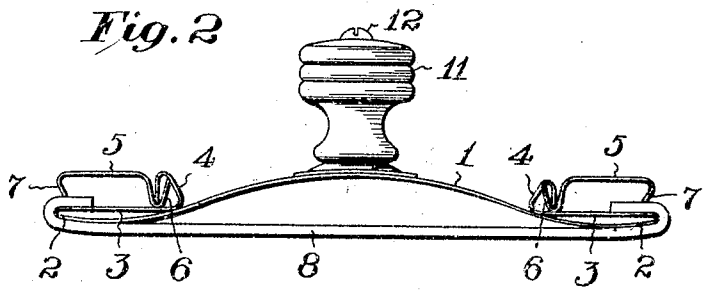


Fig. 3

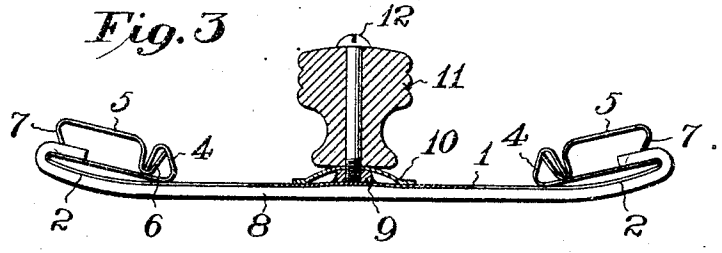
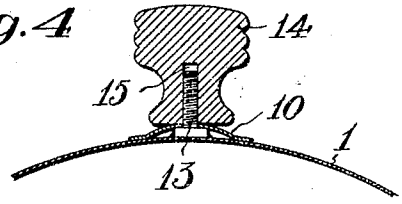


Fig. 4



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No. 785,836. Patented March 28, 1905.

UNITED STATES PATENT OFFICE.

ALFRED N. SILL, OF PHILADELPHIA, PENNSYLVANIA.

BLOTTER.

SPECIFICATION forming part of Letters Patent No. 785,836, dated March 28, 1905.

Application filed July 22, 1904. Serial No. 217,675.

To all whom it may concern:

Be it known that I, ALFRED N. SILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Blotters, of which the following is a specification.

In blotting operations heretofore there have been employed flat blotting-pads supported by holders having flat pressure-surfaces intended to apply direct vertical pressure simultaneously over the total surface to be blotted and also rolling pads supported by holders having curved bearing-surfaces designed to effect a traveling movement of the pad, so that parallel portions thereof are brought in succession in contact with the surface to be blotted. The flat pad-holders have proven unsatisfactory, because the contemplated uniform vertical pressure cannot be applied in practice, the action is not uniform, there is a lateral tendency that causes smearing, and the devices are unpleasant in manipulation by reason of their rigidity. The rolling action of curved segmental and cylindrical blotters has given good results; but they are either of expensive construction or rigid in character and requiring a complex movement of the hand. To overcome these objections, I have devised the present improvements, comprising a flexible pad-holder or back which produces a progressive or laterally-moving vertical pressure from the ends to the middle of the pad as a consequence of a simple downward pressure thereon. The holder employs an arched plate of flexible material having its outer ends bent to radii extending oppositely to that of the arch or central curve, forming a compound curve having its ends curved reversely from its median portion. The material extending outwardly beyond the ends of the reversed curves is bent back toward the center and down upon the top of the plate to form bearing-supports for the ends of the pads to be held thereon, and the material extending toward the center beyond the length desired for the bearing-supports is bent upwardly and then downwardly in approximately the form of an inverted **V** to form a hinge connection for holding hinging members of clasps which rock therein to engage and disengage the ends of the pad.

In order that the flexibility and uniformity of action of the holder may not be materially interfered with, as in the case of rigidly fixing thereto a supporting-plate for the handle, a connection for the handle is brazed or otherwise fixed to the center of the holder or crown of its arch, with which the handle connects through a cap or concavo-convex washer having a comparatively broad movable bearing upon the crown of the arch.

The blotter thus produced is light, simple, inexpensive, easily operated by a simple movement, highly satisfactory in operation, and securely holds and readily engages and disengages the pad.

In the accompanying drawings, Figure 1 represents a plan view of a blotter embodying the improvements. Fig. 2 represents a side elevation thereof. Fig. 3 represents a vertical longitudinal sectional view of the same in operative position, and Fig. 4 represents a vertical longitudinal sectional view illustrating a modified connection for the handle.

As shown in the drawings, the back or holder is composed of sheet metal and comprises a central arch 1, terminating in reverse curves 2. At the outer ends of the reverse curves the metal is bent back upon the body of the holder to form the bearing-surfaces 3, and at the inner ends of the bearing-surfaces the metal is bent upwardly and then downwardly to form the approximately inverted **V**, forming bearings or hinge connections 4 of substantially triangular section.

The sheet-metal clasps, having the body portions 5, have their rear ends bent to form an approximately **V**-shaped hinging member 6, which engages the hinging member 4, and their forward ends bent to form the jaws 7 for engaging the ends of the pad 8, which are supported upon the bearings. It will be seen that the bearings 4 hold the clasps in both the opened and closed positions, in both of which positions the members 6 have been turned past a dead-center of the bearings 4, the device providing a simple and highly-efficient clasp.

At the center of the holder, being the crown

of the arch, I braze a nut 9 and place thereon a circular cap 10, which has a movable bearing on the holder, and the handle 11 is held on the cap by a screw 12, passing therethrough into the nut, as shown in Fig. 3, or the head of the screw 13 may be brazed to the crown of the holder, having the cap 10 sleeved thereon and the handle 14 provided with the screw-threaded socket 15 directly engaging with the screw, as shown in Fig. 4.

In the normal position of the mechanism, as shown in Fig. 2, on applying direct downward pressure to the handle 11 the arched back 1 first exerts a downward pressure upon the reversely-curved ends 2, and as the arch is buckled or pressed down to the position shown in Fig. 3 the pressure on the ends is relieved and travels inwardly toward the center, the pad being drawn taut and subjected to a direct vertical pressure over its entire blotting-surface by a flexible action conforming to surfaces that are not perfectly regular.

Having described my invention, I claim—

1. In a blotter, a holder comprising an arched plate having bearings at the ends thereof, clasps connected with and adapted for engaging the ends of a pad to said bearings, and a pad drawn across said arch and secured to said bearings by said clasps, substantially as specified.

2. In a blotter, a holder comprising a plate having an arch terminating in reverse curves, in combination with a pad drawn across said arch and over said reverse curves, and clasps for holding said pad, substantially as specified.

3. In a blotter, a holder comprising an arched plate having its ends bent back to form bearings for a pad, in combination with clasps for engaging and holding said pad to said bearings, substantially as specified.

4. In a blotter, a holder comprising an arched plate terminating in reversed curves having their ends bent back to form pad-bearings, in combination with clasps for holding said pad to said bearings, substantially as specified.

5. In a blotter, a holder comprising an arched plate having its ends bent back to form bearings for a pad and folded to form substantially triangular hinge-bearings, in combination with clasps having hinge members controlled by said hinge-bearings and jaws for engaging said pad, substantially as specified.

6. In a blotter, a holder comprising an arched plate, a screw connection fixed to said plate, a cap bearing on said plate, a handle, and a screw connection passing through said cap and engaging said handle to said first screw connection, substantially as specified.

In testimony whereof I have hereunto set my hand, this 21st day of July, 1904, in the presence of the subscribing witnesses.

ALFRED N. SILL.

Witnesses:

WRIGHT KUGLER,

UTLEY E. CRANE, Jr.