

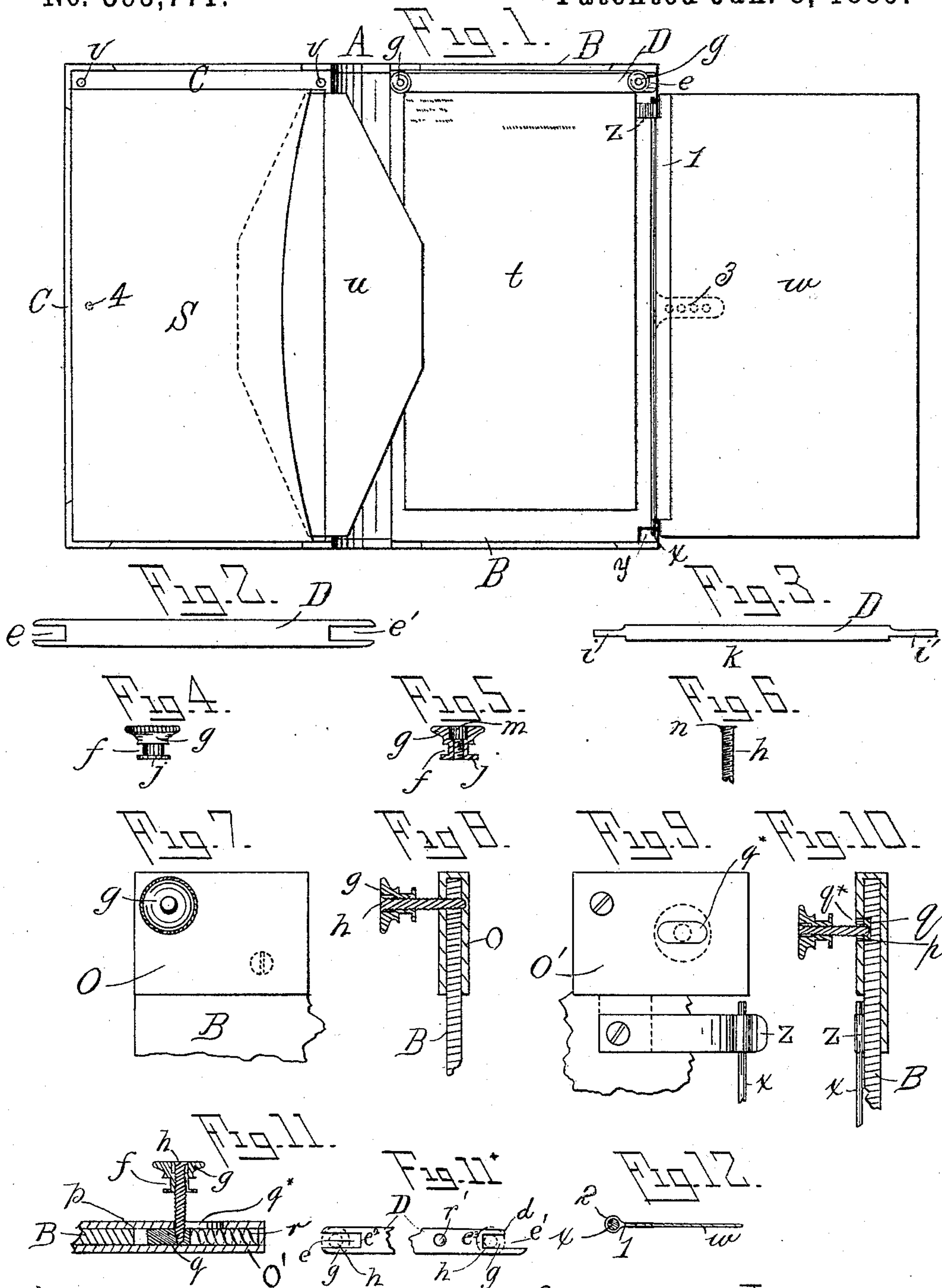
(Model.)

2 Sheets—Sheet 1.

C. D. CRANE.
PAPER HOLDER.

No. 395,771.

Patented Jan. 8, 1889.



Attest.
Will. T. Norton.
Wm R. Davis,

Calvin D. Crane Inventor.

By his Attys. John H. Malsted, & Son

(Model.)

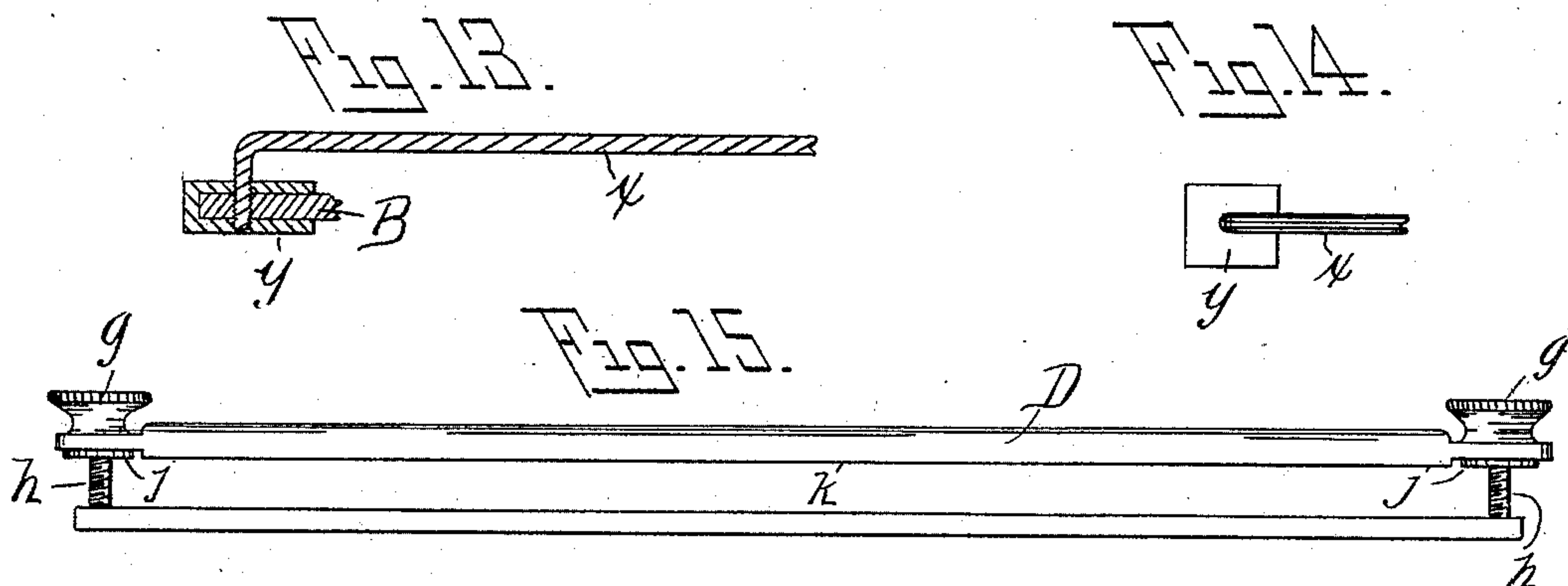
2 Sheets—Sheet 2.

C. D. CRANE.

PAPER HOLDER.

No. 395,771.

Patented Jan. 8, 1889.



Attest.
Will T. Norton.
Wm R. Davis.

Calvin D. Crane, Inventor.
By his Atty John J. Halsted Jr.

UNITED STATES PATENT OFFICE.

CALVIN DENNISON CRANE, OF ST. LOUIS, MISSOURI.

PAPER-HOLDER.

SPECIFICATION forming part of Letters Patent No. 395,771, dated January 8, 1889.

Application filed November 13, 1885. Serial No. 182,774. (Model.)

To all whom it may concern:

Be it known that I, CALVIN DENNISON CRANE, of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Paper-Holders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of paper-holders for holding paper in sheets, in which the sheets, more or less in number, are held by a clamp and are subject to removal one or more at a time, as desired; and it consists in a variety of novel features in construction, which will clearly appear from the following description.

Figure 1 represents in an open form, on a reduced scale, a paper-holder embodying my invention; Figs. 2 and 3, a plan and an edge view, on a reduced scale, of the clamping-bar; Figs. 4 and 5, an elevation and a section of one of the grooved nuts; Fig. 6, the headed post or pin detached; Fig. 7, a plan, and Fig. 8 a section, of one of the corner-plates; Fig. 9, a plan, and Fig. 10 a section, of a right-hand top corner-plate and spring; Fig. 11, a sectional elevation of Fig. 9; Fig. 11*, a reduced view of a modification of the clamping-bar; Fig. 12, a fragmentary section of the blotter-pad and of its flexible re-enforcing piece and inclosed holding-wire; Fig. 13, an elevation in section of the pad-holding wire and of the corner-plate in which it is secured and in which it may be swung around when desired; Fig. 14, a plan of the same; Fig. 15, the clamp-bar, its grooved nuts and pins applied to a single piece or bar.

Referring, first, to Figs. 1 to 15, inclusive, A illustrates a folding paper-holder embodying my invention; B, the tar-board or bottom board of the same, and C its cover or top board; D, the bifurcated clamping or cross bar for holding to place or for releasing the sheets, as desired, and which has prongs or projections formed by slots or openings *ee'* at its ends to permit the bar to engage with the annular groove *f* in the nuts *g* on the threaded posts *h*. A small portion of the under face of

the bar is recessed or cut away, as shown at *i i'*, in order to permit the under surface, *j*, of the nut to be in the same plane with the general under surface, *k*, of the bar, and thus practically a continuation of it. The engagement of the end of the bar with the groove *f* of the nut insures a positive lifting of the bar by the moving upward of the nut so as to relieve the sheets or pieces of paper *t* from all friction or weight of the bar to enable one or more sheets to be readily removed, and by turning the screws down again the bar is positively carried down again to clamp the sheets, the bar being thus carried by the nuts. If it be desired in any given case to have the nuts capable of being entirely unscrewed, like any ordinary nut, from their threaded posts, they may be so made; but to avoid their becoming detached and liable to be lost I prefer to widen out or enlarge the screw-hole of the nut near its top, as shown at *m*, and to make the top of the post with a rivet-like or other head, *n*, which will prevent the detaching of the nut and yet allow it to be screwed or raised to the highest practicable point on the post, the head of the post thus lodging in the widened or unthreaded part of the hole.

The posts *h* are affixed to the tar-board as follows: A brass or other metal plate, *O*, is so bent as to lie above and below and over or around the edge of and thus embrace this board, as shown in Fig. 8, and the post which connects with this plate is screwed through the tar-board and through both leaves of this plate. It thus serves, instead of rivets or bolts, to hold the plate to place, and the leaves or upper and under folds of the plate serve to retain the post rigidly upright. In some cases it may be desirable to use a rivet, also, to fasten the plate.

In order that the clamp may have an adaptability or self-adaptability to paper of various widths, I make the support for the post at the right-hand corner, as follows: In the tar-board I make a slot or mortise, *p*, and insert therein a metal block or slide-piece, *q*, into which the post is securely screwed, a slot, *q**, in the metal plate *O'*, allowing the post to project upward through it, and a small spiral or other spring, *r*, within the mortise, bearing against the piece *q*. This construction causes this post

to be pressed by the action of the spring against the side edges of the paper, affording sufficient friction to hold it when the pressure of the bar D is removed, and especially when the holder is lying on a slanting or sloping desk, thus preventing the sliding away of the paper. This friction or pressure upon the edges of the paper also holds the body of the paper in place while one or a few leaves are being removed.

To provide for the instant removal or rearrangement of papers under the clamping-bar, one prong, d , at one end of the bar, may be made shorter than the other, and the distance between the inner ends, e^2 e^3 , of the two slots made a little less than the distance between the nuts g , as shown in Fig. 11*. The clamping-bar I also provide with a knob or handle, r' , for convenience of sliding said bar on the nuts g . For successful results, the prong d should be just short enough to escape its adjacent nut when the bar is moved to the left to its extreme limit. By taking hold of the knob r' and sliding the clamping-bar from right to left as far as it will go the end of the prong d will escape its adjacent nut, and the fork at the end of the bar can then be freed from the nut, so that the bar can be pulled away from the other nut and removed. When this construction of bar is used in connection with the slide-piece q and spring r , the removal of the bar may be assisted by pressing the nut g and post h to the right against the spring until the nut has released the short prong d .

The above construction allows of an almost instantaneous removal of the bar, so that the papers may be rearranged or otherwise fixed, a full and new supply of papers put in place, or one or more papers removed or reversed at pleasure. After the bar has been removed the nuts can be turned to the top almost with a single motion or turn of the hand, as they are freed from all friction of the bar. The above-described form of bar may also be used with the self-adjusting mechanism illustrated in Fig. 11; but in this case the spring r will have forced the inner ends, e^2 e^3 , of the slots e in contact each with its respective nut. Now, when it is desired to remove the bar, instead of sliding it to the left by the knob r' , the right-hand nut is slid to the right, when the bar will be freed from the same.

The cover or top board, C, is united to the lower board by a flexible leather or cloth, or by a hinge of other suitable material, and has affixed to it a pocket or receptacle, s , on the inner side, the mouth or opening of which pocket is toward the paper t on the holder, and is furnished with a flap, u , which is so shaped that it may be folded within the pocket, as shown in dotted lines in Fig. 1, this pocket being designed for holding the papers when written upon and detached from the holder to keep them collected and cleanly.

In the cover are apertures or perforations v v to receive the ends of the posts when the

latter project above the nuts and when the covers are closed. They also serve in this condition to protect the holder against injurious effects from violent or careless handling, preventing any straining of the hinge part of the holder by keeping the tops of the holder together.

The blotting-pad w is removably applied in manner as follows: A wire, x , threaded at one end, is screwed into the holder at its lower right-hand corner, and also through the brass or other strengthening plate or plates, y , (see Figs. 1 and 13,) which are placed on such corner, and it may be turned around on its screw as on a pivot. This wire near such screw end is bent down parallel with the back board, and at its other end is held by a metal spring, z , secured to the upper corner of the holder, this spring having its free or outer end bent into a curve or catch to receive and hold the wire. The pad is re-enforced at one edge by a cloth, 1 , which being folded and glued or pasted to the edge of the pad, with its fold projecting far enough to form a tube, 2 , to receive the wire, is then slid onto the wire, this tube thus serving as a hinge. The wire being then turned on its threaded end, its other end lodged in and held by the spring z , the pad is free to be swung off from the paper when writing, or to be swung back upon the paper after the writing is done.

When the cover C is closed upon the bottom board, B, the parts are fastened or held together by a leather strap, 3 , secured by glue, screws, or tacks to the bottom board, and provided with a series of holes at close intervals to receive a pin or hook, 4 , on the cover C, near its edge; or instead of such strap a chain of open links may be used, and the pin or hook may be of any desired shape best adapted for the links.

Both the posts h may be secured to the same piece or bar of metal, as shown in Fig. 15, such piece being of sufficient length to leave enough space between them to receive the leaves of a copy-book of tissue used for copying letters and other manuscripts, the nuts and clamping-bar being the same as hereinbefore described.

With my holder, interleaved letter-books or tissue copy-books having letter-heads, or other papers the writing on which is to be copied, may be used, the clamp serving to hold the interleaves and tissue-book all firmly together.

I claim—

1. In a clamp paper-holder, the combination, with the threaded pin or post h and with the clamping-bar D, of a nut, g , having an annular groove therein at its lower end, the combination insuring a positive raising and lowering of the bar and maintaining it in its raised or lowered position, for the purposes set forth.

2. In a clamp paper-holder, the combination, with the threaded pin or post h and the bifurcated clamping-bar D, having one prong,

d, at one of its ends shorter than the other, of a nut, *g*, having an annular groove therein at its lower end, the combination insuring a positive raising and lowering of the bar and maintaining it in its raised or lowered position, and also serving as a ready means for removing the bar from the nuts, all as set forth.

3. In a clamp paper-holder, the combination, with the clamping-bar *D*, of a nut, *g*, having an annular groove therein at its lower end, and the screw-hole enlarged or widened near its top, and the threaded post having a rivet or other head, *n*, as and for the purposes described.

4. In combination with the bottom board and with one of the posts *h*, the metal slide-piece *q* and spring *r*, such slide-piece and spring being located within a mortise, *p*, in the board, substantially as and for the purposes set forth.

5. In combination with the bottom board, the pivoted bent wire *x*, screwed to the board at one of its ends, and the spring-catch *z* at the upper end of the board, as and for the purposes set forth.

6. In combination with the wire *x*, bent and threaded at one end, as set forth, a threaded socket in which it turns as on a pivot, and the blotting-pad provided with a tube adapted for sliding such pad on and off the wire, as set forth.

7. In combination with the bottom board, the pivoted bent wire *x*, screwed to the board at its bent end, the blotting-pad provided with a tube, *2*, whereby the pad may be readily slid on and off the wire, and held thereto as by a hinge, and the spring-catch *z*, all as set forth.

8. The threaded posts *h h* and their grooved nuts *g*, combined with a single bar for supporting both posts and in which the posts are secured, as set forth.

9. In combination with the posts and with the grooved nuts *g*, the bed-piece having the cavity *5* around the post, as and for the purpose set forth.

CALVIN DENNISON CRANE.

Witnesses:

NIC. TENGG,
JNO. WITHERS.