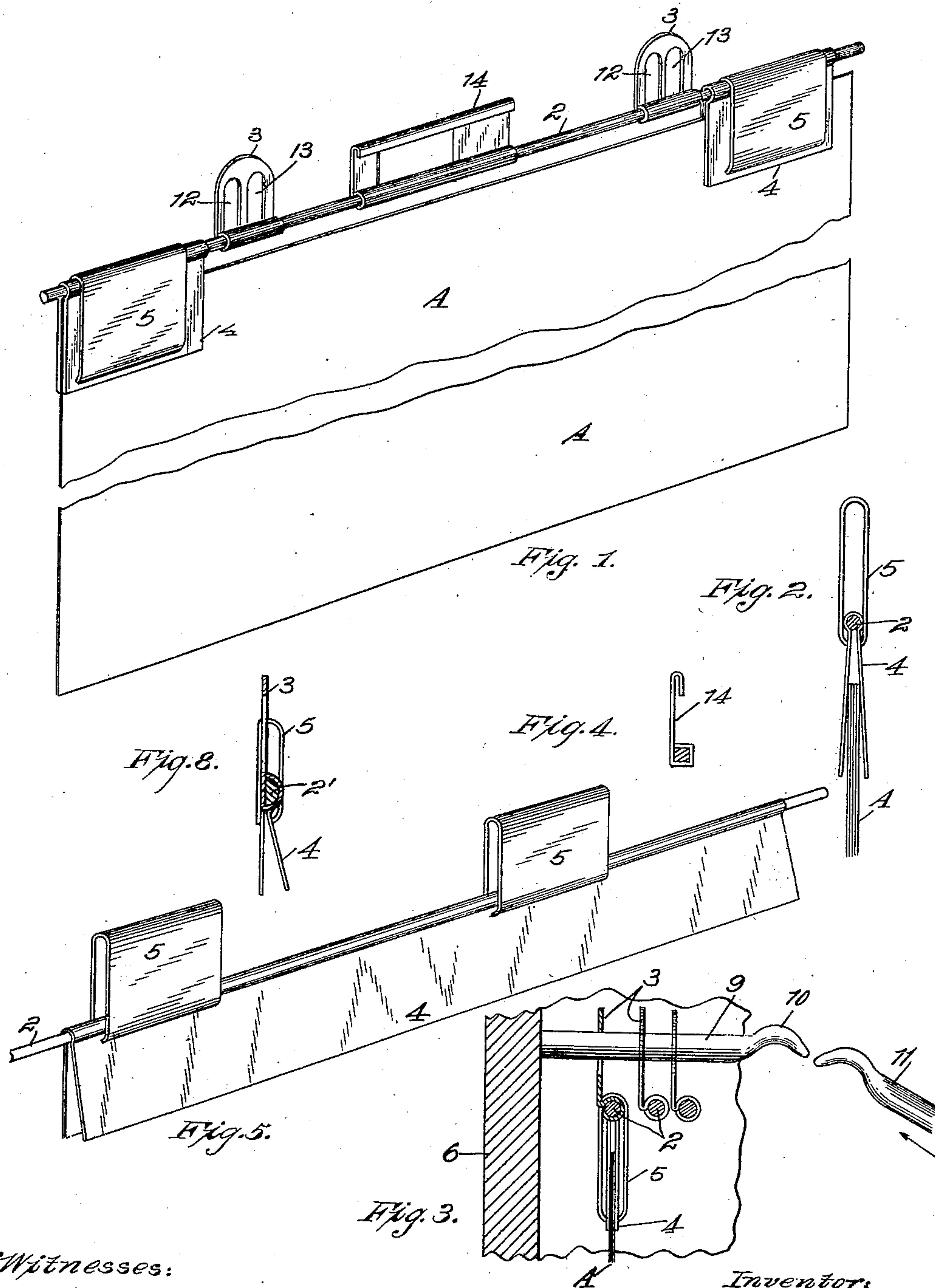


J. DANNHEISER.
VERTICAL FILING SYSTEM.
APPLICATION FILED APR. 22, 1908.

923,412.

Patented June 1, 1909.

2 SHEETS—SHEET 1.



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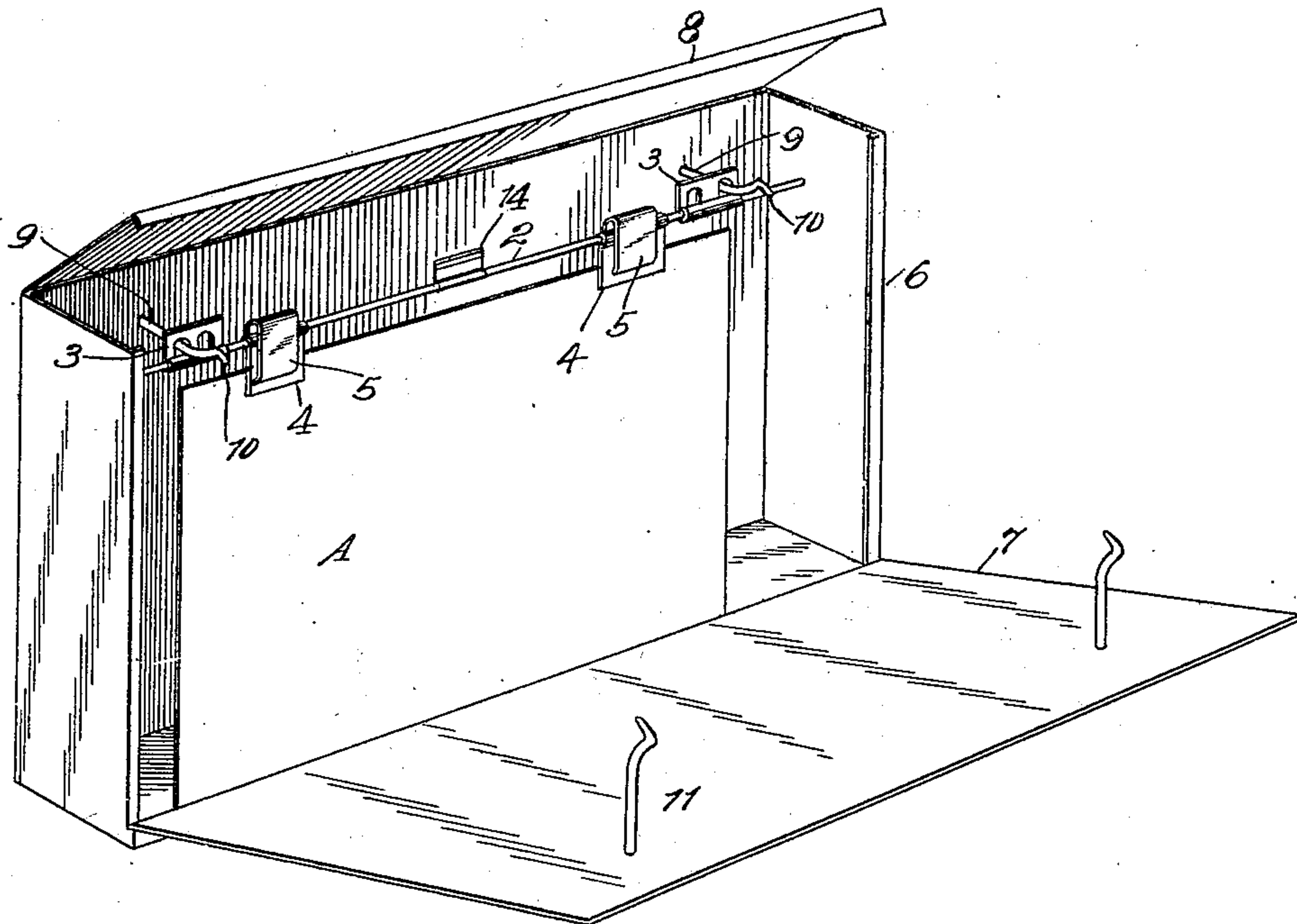


Fig. 6.

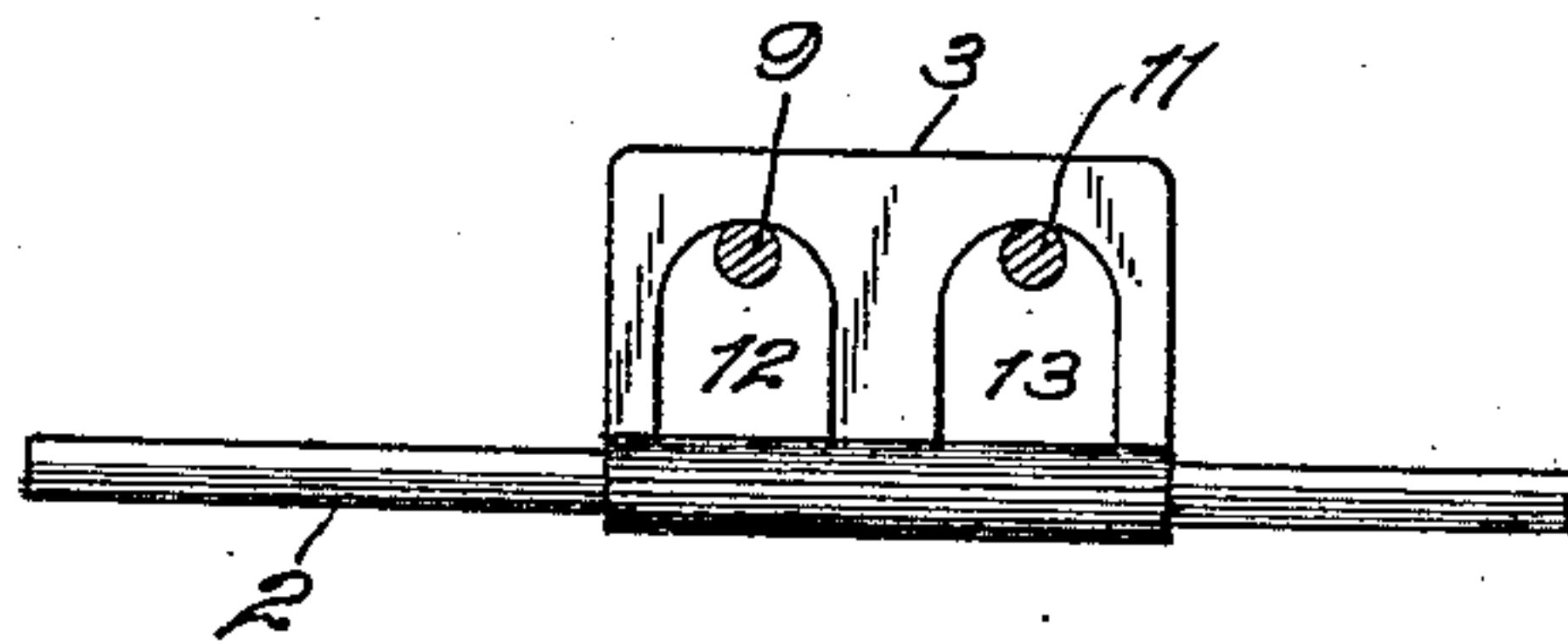


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOSEPH DANNHEISER, OF SAN FRANCISCO, CALIFORNIA.

VERTICAL-FILING SYSTEM.

No. 923,412.

Specification of Letters Patent.

Patented June 1, 1909.

Application filed April 22, 1908. Serial No. 428,666.

To all whom it may concern:

Be it known that I, JOSEPH DANNHEISER, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Vertical-Filing Systems, of which the following is a specification.

My invention relates to vertical filing systems, in which the papers or other things to be filed are suspended from their upper edges, rather than by placing them in envelopes or folders.

The object of the invention is to provide a simple, cheap, practical filing means and filing cabinet for conveniently filing large maps, blue prints, drawings and other things which are too large or too limp to remain flat when stood on edge in a cabinet, or placed in a holder or folder; and also to provide a means by which any one or a number of maps, or the like, may be easily taken out of the filing case without disturbing the others, and in which the articles so taken out may be returned automatically into position in the cabinet or case.

Having reference to the accompanying drawings—Figure 1 is a perspective of a simple form of holder. Fig. 2 is a cross-section of the same. Fig. 3 is a section of a cabinet showing how a number of the holders are supported therein. Fig. 4 is an edge view of a tab or indicator. Fig. 5 shows a modified form of clip. Fig. 6 is a perspective view of the cabinet. Fig. 7 is a front view of a hanger. Fig. 8 is a cross-section of a rod and clamp.

A represents a map, blue print, sheet, envelop, or anything else that it may be desired to file away.

2 is a rod of any suitable length, material, or shape in cross-section, and suitably supported in the hangers 3 which may be appropriately mounted in a cabinet or case.

4 is a clip made preferably of springy sheet metal, and adapted to straddle the rod 2 at suitable intervals, and having normally open spring jaws in between which the sheet to be filed may be readily passed, and securely held therein by a stiff clamp member 5. This clamp member 5 is adapted to engage the normally opened inclined spring jaws of the clamp 4 in such fashion that when the clamp member 5 is pulled upward, as shown in Fig. 2, it will allow the clip to open; but when pushed downward over the

clip it will spring the jaws of the latter together and firmly grip the interposed sheet or sheets.

The construction of the parts 4—5 is preferably such that they may be engaged after the clip 4 is put on the rod 2, and the parts will be held together without any danger of their falling apart or falling off the rod when the jaws are opened out.

The clamp member 5 is here shown in the shape of a flattened tube slotted along one edge and embracing the clip 4 with which it coöperates.

The clips 4 may be of any appropriate length, size and shape, and if desired they may be made quite long so as to reach practically the full length of the rod 2, as shown in Fig. 5; the rod 2 in that case being suitably hung from the ends. With a long clip such as shown in Fig. 5, several of the clamp actuating devices 5 may be employed. Preferably these hangers, consisting of the rod 2, clips 4 and actuators 5, are supported in a cabinet, as 6, in such fashion that when the front 7 of the cabinet is open, any one or any number of the hangers may be removed from their support within the cabinet and laid horizontal; being supported on the front 7 as on a table or shelf. This cabinet 6, while it may be made of any appropriate material, is preferably constructed of sheet-metal, having a hinged top 8 and having the front 7 hinged at the lower edge of the box.

Within the box or cabinet 6 one or more pegs or brackets 9 are fixedly secured to the back of the box, and have their front ends curved upwardly and then downwardly, as shown at 10. The supports 3 on the hanger rods 2 are adapted to be hung on these supports 9.

The front of the box has two pins or brackets 11 corresponding to the brackets 9, and so arranged that when the cover 7 is closed, the pins 11 and 9 will all stand substantially parallel and in the same horizontal plane; but so separated from each other that the pins 9 will pass through one set of holes, as 12, in the hangers 3, while the pins 11 on the cover 7 will engage a similar set of holes 13 in the brackets 3; the shape of the holes 12—13, and the shape of the ends of the pins 11 and 9 being such that the proper registering of the pins and holes will always take place as the cover is opened out or closed up.

In practice, the blue prints or maps or other things to be filed away are engaged in the clips 4 and clamped therein by means of the devices 5, and the rod or rods 2 from which these clips are hung are suspended by the hangers 3 on the suitable pins 9 inside the cabinet.

There can be any number of these filing devices in one cabinet, as shown in Fig. 3. If it is desired to get at any particular file, and supposing there are a number of files hung on one set of pins 9 inside the cabinet, the cover is opened far enough so as to see by means of the indices 14 just which file or files are needed. Then with the outer ends of the fixed pins 9 and movable pins 11 still overlapping, the operator simply shifts all those files in advance of the one desired from the pins 9 on to the pins 11, and opens out the cover and lays it flat, whereupon he can easily reach any one of the files, or any paper in the file.

When the apparatus is closed up the files are carried upward and again supported on the pins 9.

Each rod 2 is preferably provided with its own index tag or indicator 14, which may be of any suitable description, and as shown in Figs. 1 and 4 is made of metal to receive a slip on which the desired memorandum may be inscribed or printed.

In practice, it has been found that a half-round rod 2', such as shown in Fig. 8, is much to be preferred, for the reason that it occupies very little room in the case, and that by setting these half-round rods in the case so that they stand with their flat edges vertical, the files can be placed close together; and moreover, by appropriately shaping the clips 4 and clamps 5 so that these devices have flat faces on the flat side of the half-round bar 2', the file can be laid flat on the table, and when the jaws are opened out it is a very simple matter to slip the sheets into engagement with the jaws. Also, this half-round construction prevents the hangers 3 or the clips or the indices 14 from turning, and maintains them always in vertical position. Furthermore, all the necessary spring action in a clip 4 is obtained in a $\frac{1}{4}$ inch half-round rod that was previously obtained in a $\frac{3}{16}$ round or square rod.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In a filing system, the combination of a supporting rod, a clip member comprising a strip of spring metal bent centrally over said rod and made to embrace substantially the whole of the rod so that the bent portion of the clip forms a hump and the two sides of the member when pressed together will lie substantially parallel and contiguous and form an extended gripping area, and a slid-

ing clamping member straddling the rod and engaging the sides of said clip and slidable thereon to close the clip.

2. In a filing system, the combination of a supporting rod, a clip member comprising a strip of spring metal bent centrally over said rod and made to embrace substantially the whole of the rod so that the bent portion of the clip forms a hump and the two sides of the member when pressed together will lie substantially parallel and contiguous and form an extended gripping area, and a sliding clamping member straddling the rod and engaging the sides of said clip and slidable thereon to close the clip, said clamping member having its portions which bear on the clip spaced apart a distance less than the diameter of said rod, and the hump made by bending the clip over the rod preventing the withdrawal of the clamping member from the clip.

3. In a filing system, the combination of a cabinet having a hinged side, projecting pins on the fixed part of the cabinet, and other pin members on the hinged side movable toward and from said fixed pins, supporting rods having suitable clips for engaging the edges of the paper to be filed, and said rods suspended from hangers each of which has two sets of holes, one of said sets of holes receiving said fixed pins, and the other set of holes receiving the pins on the cover.

4. In a filing system, the combination of a cabinet having a hinged side, projecting pins on the fixed part of the cabinet, and other pin members on the hinged side movable toward and from said fixed pins, supporting rods having suitable clips for engaging the edges of the paper to be filed, and said rods suspended from hangers each of which has two sets of holes, one of said sets of holes receiving said fixed pins, and the other set of holes receiving the pins on the cover, said fixed and movable sets of pins having arched overlapping ends.

5. In a filing system, the combination of a cabinet having a hinged side, projecting pins on the fixed part of the cabinet, and other pin members on the hinged side movable toward and from said fixed pins, supporting rods having suitable clips for engaging the edges of the paper to be filed, and said rods suspended from hangers each of which has two sets of holes, one of said sets of holes receiving said fixed pins, and the other set of holes receiving the pins on the cover, and said supporting rods provided with indicator tabs.

6. In a filing system, the combination of a half-round rod with its flat side stood vertically, spring clips embracing this rod, said clips having normally open spring-actuated jaws, and a bifurcated clamping member supported and slidable on said jaws

to close the latter, said clips and clamping members being flat on the flat side of said half-round rod.

7. In a filing system, the combination of
5 a cabinet having a hinged side, projecting pins on a fixed part of the cabinet, other pin members on the hinged side movable toward and from and adapted to overlap
10 said fixed pins, supporting rods having suitable clips for engaging the edges of the paper to be filed, said rods suspended from hang-

ers which have perforations engageable by said fixed and movable pins, and said hangers being movable from one set of pins to the other when said pins overlap.

15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH DANNHEISER.

Witnesses:

CHARLES A. BENFIELD,
CHAS. E. TOWNSEND.