

E. H. COOPER.

SPRING CLIP.

APPLICATION FILED MAR. 11, 1911.

1,017,249.

Patented Feb. 13, 1912.

Fig. 1.

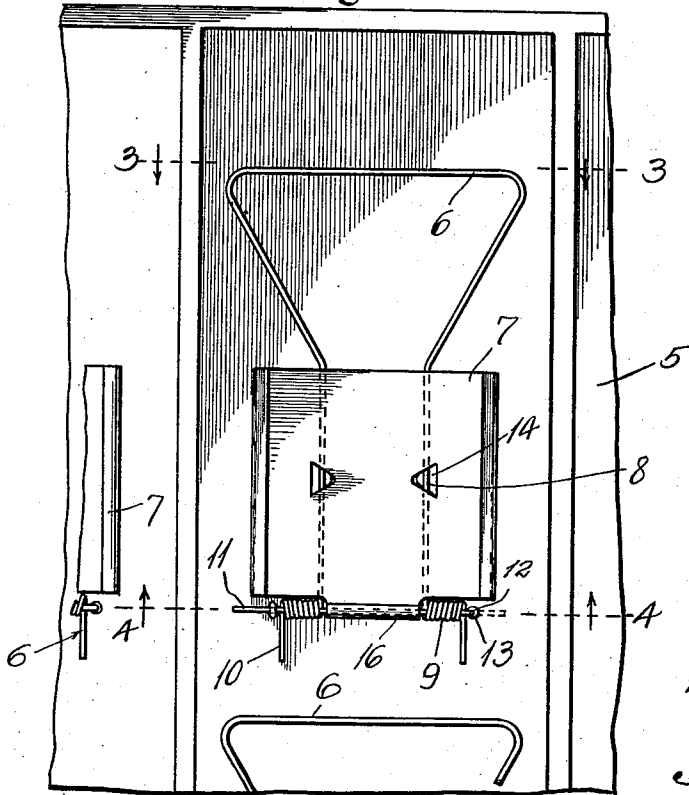


Fig. 2.

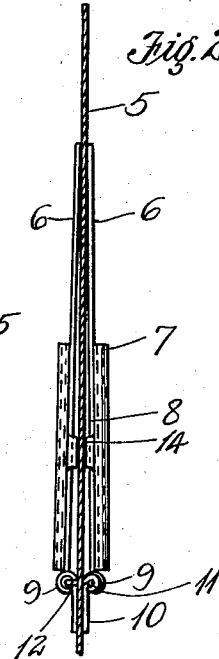


Fig. 3.

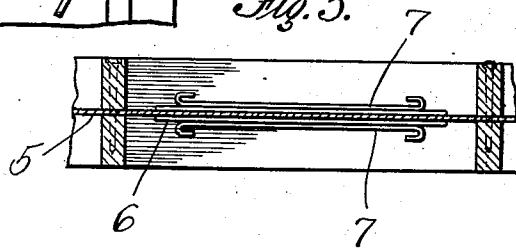


Fig. 5.

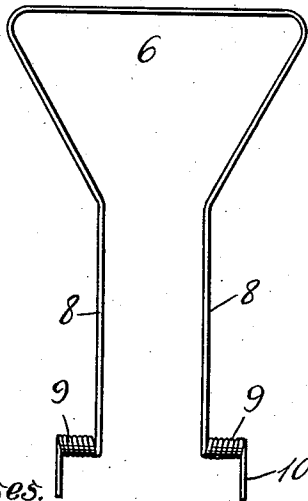
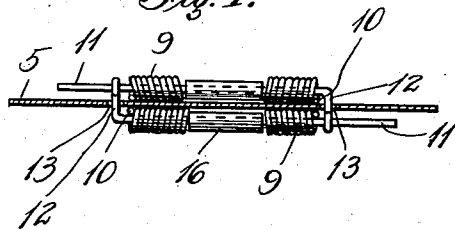


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SPRING-CLIP.

1,017,249.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWIN H. COOPER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Spring-Clips, of which the following is a specification.

This invention relates to improvements in file holders and particularly to the class of holders that are provided with spring clips or clamps for holding bills, files or other matters in certain position.

It is an object of the invention to provide a bill holding means or file in which spring actuated clamps may be mounted upon a suitable backing in an improved manner.

It is also an object of the invention to secure a spring clamp to bill holders on opposite sides of the back or support by means of cooperating fastening means readily put in place.

In the accompanying drawing forming a part of this specification Figure 1 is a side elevation of a portion of a file carrying device showing the file clips fastened thereto. Fig. 2 is a central view through the plate or base carrying the file clips, file clips being shown as applied thereto upon the opposite faces thereof. Fig. 3 is a transverse sectional view taken upon the line 3—3 of Fig. 1. Fig. 4 is a similar sectional view taken upon the line 4—4 of Fig. 1. Fig. 5 is a detail view in elevation of one of the spring clamps secured to the back board of the mechanism.

The features of the invention will now be more specifically described in detail, reference being had to the accompanying illustration in which—

5 indicates a leaf or back-board or piece forming part of the file holding mechanism and 6 spring pressed clips mounted upon said back 5 while 7 indicates tab holders applied to the two clips for holding index tabs and the like. The tab holders 7 are preferably formed of broad plates having securing projections 14 struck up from the same at suitable points to engage the side boards 8 of the clamps 6 as shown in Fig. 1. The outer edges of the said tab holders 7 are turned or folded inwardly to form tab retaining flanges 15 behind which the tabs can be easily slipped. The lower edge of each tab holder is provided with an extended portion 16 which is bent about the pivot rod 11 so as to have a pivotal engagement therewith

and thus be free to swing with the clamps 6. The eye formed by bending the projections 16 around the pivot rod 11 is also made of such length as to properly space the springs 9 apart.

It will be observed by reference to Figs. 2, 3 and 4 that the inter-locking adjacent pivot rods upon opposite sides of the back 5 cooperate to hold the parts of the clamps on the opposite faces of the plates 5 in corresponding positions.

It will be understood that as many clamps 6 may be secured to the opposite faces of the plates 5 as desired and yet that each one is individually secured by short pivot rods.

The structure is admirably adapted for accounting systems in which leaves or hinged members are provided with a plurality of file clamps upon their faces as will be understood by reference to Fig. 1.

As above intimated, the clamps upon opposite faces of the back 5 can be readily and easily secured to the plates by merely punching the holes 13 therein and interlocking the pivot pins of the opposing clamps on the opposite faces of said back.

The mechanism of the present invention is particularly adapted to file holders which are carried or used in plural numbers upon leaves or backs which may be assembled to form an accounting system. The backs may be made of any suitable material, preferably of thin sheet metal and having secured thereto the spring clips 6 which are usually bent from suitable material as spring wire to form broad bearing ends while the arms 8, thereof extend to the securing portions where coiled springs as 9 are arranged, the ends of the material beyond the coiled springs being extended at 10 to provide bearing means for engaging the back 5. The action of the springs 9 is to hold the clamp 6 against the plate 5 with a yielding pressure. The mounting of said clamps is an important feature of the present invention and preferably comprises short pivot rods as 11 which are arranged to extend axially through the springs 9 and parallel with the faces of the plate 5. One end of said pivot rod 11 is preferably turned at an angle to the main portion thereof and passes through an aperture as 12 in the said back 5. The other end of the said rod is usually secured in position by means extended through the back near the opposite end of said rod. The means for securing the

straight end of said pivot rods is preferably the bent end 12 of a similar pivot rod applied upon the other face of the back 5 and carrying a duplicate clamp 6 as will be readily understood by reference to Figs. 2, 3 and 4 of the drawing. The clips are thus readily and in a simple manner secured to the opposite faces of the back, the bent ends 12 are preferably inserted through the apertures 13 and bent into an eye around the straight end of the opposing pivot rod for locating the two pivot rods in position upon opposite side of the back 5.

It has been common heretofore to secure adjacent clamps upon the same side of a plate 12 with a continuous rod extending from one hinge portion to another of the clamps. By the present invention individual pivot rods are used for each clamp and the holes 13 for offering the securing of the same can be quickly and readily formed or punched in the backs 5.

What I claim is:—

1. A file clamp mechanism comprising a back, a clamp frame having hinge engaging portions, and a hinge adapted to engage said hinged portion and extending through the back together with inter-locking securing means for holding said hinge in place.

2. A file mechanism comprising a clamp having springs formed thereon, a pivot pin extending through said springs, a back for supporting the said pivot pin, one end of said pivot pin being extended through the

back, and a bar engaging said end and extending through the back at one point for holding the said pivot pin in position.

3. A file holding clamp mechanism comprising a clamp, a pivot pin adapted to engage one end of said clamp for holding it pivotally in place, and a locking bar arranged upon the other side of the back and adapted to extend through the same for locking the pivot pin in position.

4. A file mechanism comprising a back, clamps mounted on the opposite faces thereof, and having coiled springs at their ends, interlocking pivot pins engaging said coiled springs, and extending through the said back for holding both of said clamps in pivotal position.

5. A file mechanism comprising a clamp, having spring looped portions formed thereon, a backing carrying said clamp, a pivot rod extending through the loop portions for securing the same to the backing, a tab holder carried by the clamp and having a pivot pin engaging portion, the said portion being arranged to space the spring portions of the clamp a suitable distance apart.

In witness that I claim the foregoing I have hereunto subscribed my name this 6th day of March, 1911.

EDWIN H. COOPER.

Witnesses:

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EARLE R. POLLARD.