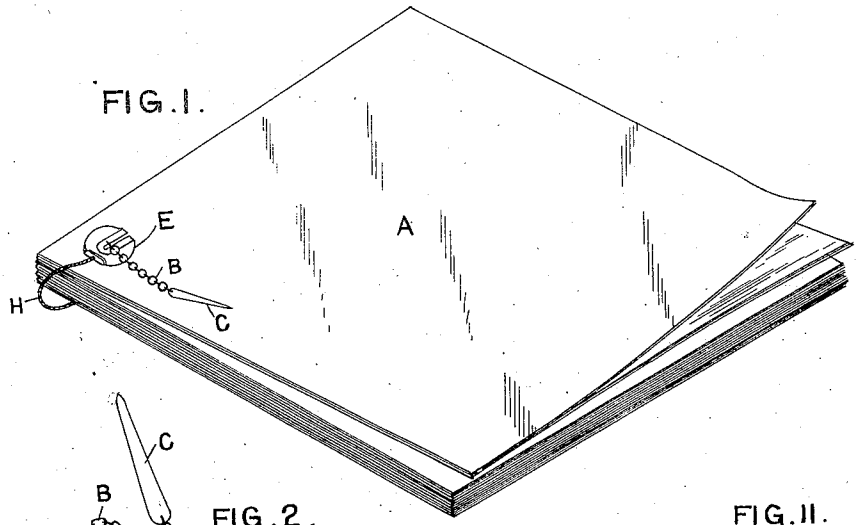
(No Model.)

O. F. WESTRUP.

BINDING DEVICE FOR PERIODICALS, NEWSPAPERS, &c.

No. 484,268. Patented Oct. 11, 1892.

FIG. 1.



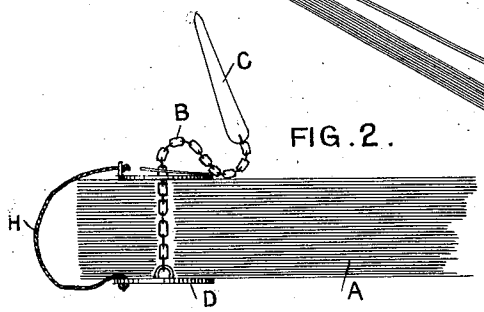


FIG. 2.

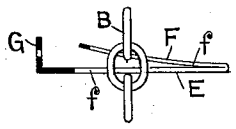
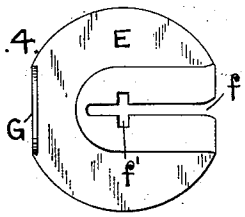


FIG. 3.

FIG. 4.



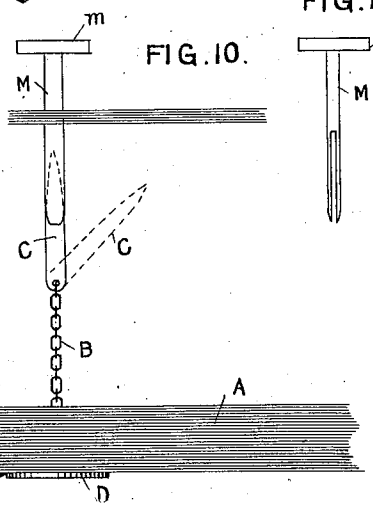


FIG. 10.

FIG. 11.

FIG. 5.

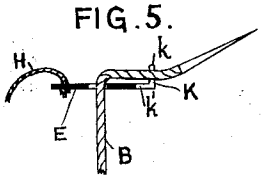


FIG. 6.

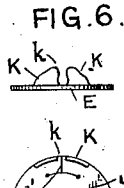


FIG. 7.

FIG. 8.

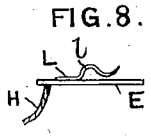
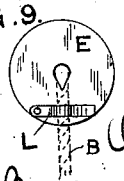


FIG. 9.



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Atty.

UNITED STATES PATENT OFFICE.

OLIVER F. WESTRUP, OF LIVERPOOL, ENGLAND, ASSIGNOR OF ONE-HALF TO MONTAGU HIGGINSON AND DAVID MAURICE VAUGHAN, OF SAME PLACE.

BINDING DEVICE FOR PERIODICALS, NEWSPAPERS, &c.

SPECIFICATION forming part of Letters Patent No. 484,268, dated October 11, 1892.

Application filed February 2, 1891. Serial No. 379,875. (No model.)

To all whom it may concern:

Be it known that I, OLIVER FRANK WESTRUP, marine insurance agent, a subject of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, in the Kingdom of England, have invented certain new and useful Improvements in Binding Devices for Periodicals, Newspapers, and the Like, of which the following is a specification.

This invention relates to certain improvements in paper-filing appliances, having for their object the production of a simple appliance whereby loose sheets, letters, manuscripts, pamphlets, music, periodicals, or other papers may be temporarily bound together or filed in such manner as to be kept in perfect order and be always convenient for reference.

Referring to the drawings, Figure 1 is a perspective view of a bundle of papers secured together by my improved appliance. Fig. 2 is an elevation showing the appliance full size and in position, the papers being in section. Figs. 3 and 4 are section and plan, respectively, of the retention device of the appliance drawn to a larger scale than Fig. 2. Fig. 5 shows in section a modified form of retention device. Fig. 6 is an elevation of the same at right angles to Fig. 5. Fig. 7 is a plan of same. Figs. 8 and 9 are side view and plan, respectively, of another modified form of retention device. Fig. 10 shows a paper-holding device used in connection with the filing appliance and hereinafter more fully described. Fig. 11 is a side view of said holding device.

A is a series of papers.

B is a flexible binder, such as a piece of fine chain, cord, or its equivalent, upon which the papers are strung. To one end of the chain or cord is attached a suitable perforator, such as a stout needle C, which is adapted to be pushed through the papers, the chain or cord being pulled through after it, until the papers press against a stop-piece D, attached to that end of the chain or cord remote from the needle.

E is a retaining piece or disk of suitable material, such as metal or bone, which is adapted to be placed on the flexible binder to hold the papers in position thereon. When a chain is employed, the retaining-piece E is provided on its upper face with a flat spring F, which is attached to it, preferably, at or near one edge thereof, and stands normally a short distance from the face of the piece E, as seen on Figs. 2 and 3. The spring F and disk E are both provided with a narrow slot *f*, which extends from the circumference of the disk to about the center thereof or other convenient point, the slot being wide enough to permit of the passage of a chain-link edgewise. The disk E is placed upon the file of papers and is slipped sidewise onto the chain in such manner that the link which projects immediately above the uppermost paper enters the slot *f*, as seen in Fig. 3. The spring is at the same time compressed by contact with the link above it and presses the disk firmly against the paper or against the link just below the disk, the combined link and disk being thus held securely on the chain. As an additional security a short slot *f'*, Fig. 4, is formed in the spring at right angles to the main slot *f*, whereby when the disk is pushed home the spring flies up and its cross-slot *f'* engages the lower end of the link just above it, as seen in Fig. 3. The flat spring F is preferably formed in one with the disk E, being bent back so as to lie in proximity to the disk, as shown. The disk E may be also provided with a lip or projection G on its outer face, whereby it may be drawn off from the chain when desired, the spring being compressed at the same time by the tip of the finger or thumb which engages the lip.

H is a piece of thread or the like which connects the two pieces E and D together and prevents the retaining-piece E from being mislaid when removed from the chain. Where the papers are strung upon a cord instead of a chain the construction of the retaining device is rather different. In this case the perforator C and cord B are passed through a hole J in or near the center of the retaining-disk, the said hole being formed with a V-shaped notch at one side, as at J'. The cord being drawn through the hole J, the disk is

pressed down against the papers and the cord pressed into the V-notch J'. The loose end of the cord is now secured to the disk by any suitable device which will exert a slight tension on the cord in the direction of the notch J'. For example, a lip or projection K may be provided on the outer face of the disk at the side nearest the V-notch J', and said lip may have a slot *k* slightly narrower than the diameter of the cord B, so that the latter when pressed into it is held therein with sufficient pressure to produce the required tension on the cord, as aforesaid. If desired, the sides of the slot may be made capable of springing apart slightly, and to this end the disk may be split, as at *k'*, so that the lip K and the adjacent parts of the disk form, as it were, a spring-clip for the cord.

Other forms of spring-clip may be employed—as, for instance, that shown in Figs. 8 and 9, in which L is a flat spring mounted on the upper face of the disk E. The cord is adapted to be hitched under the spring as shown in dotted lines in Fig. 9, and the latter may be hollowed out, as at *l*, to afford an additional grip on the cord.

In the drawings only one filing device is shown for securing the bundle of papers; but it will be obvious that any convenient number may be used, the same being placed at intervals along one edge of the bundle. I sometimes provide a guard or ferrule M, in which the perforator C, when not being used, may be inclosed. This guard may be employed as a temporary paper-holder, and to this end it may be furnished with a collar *m* at its outer end. When it is desired to remove a particular paper from the body of the bundle, the papers above it are slipped onto the guard M. The latter is then removed from the perforator, the desired paper drawn off the chain or cord, the guard replaced on the perforator, the papers on the guard slipped onto the chain or cord again, and the retaining device replaced.

I declare that what I claim is—

1. In a paper-filing appliance, the combination, with the flexible binder B, the stop-disk D, and the perforator C, of a loose retaining-piece E, embracing the binder and bearing against the papers thereon, and a catch, as described, on the piece E for securing the same positively to the binder, substantially as described.

2. In a paper-filing appliance, the combination of the chain B, stop-disk D, perforator C, loose retaining-piece E, having slot *f*, adapted to receive a link of the chain edgewise, and slotted spring F on the piece E, also adapted to receive said link and to bear against the chain-link above it and press the piece E down onto the papers, substantially as described.

3. The combination of the chain B, stop-disk D, perforator C, loose retaining-piece E, spring F, and cord H, connecting the piece E and disk D, substantially as described.

4. The combination of the chain B, stop-disk D, slotted retaining-disk E, and slotted spring F, substantially as described and shown.

5. In combination with the flexible binder of a paper-filing appliance, a stop-piece D, fixed to one end of the binder, a loose retaining-piece E, having a fastening device and adapted to be attached to any desired point on the binder, and a flexible line H, connecting the pieces D and E to prevent the loss of said loose piece E when detached from the binder, while permitting said piece E to be manipulated independently of the stop-piece D, substantially as described.

6. In combination with the binding-chain of a paper-filing appliance, a retaining-disk E, having a slot *f*, adapted to receive a link of the chain edgewise, and a flat spring F on the disk E, having a similar slot to receive said link edgewise, and having, also, a cross-slot *f'* to receive the end of the link above it when the disk is pushed home onto the chain, substantially as described.

7. The combination of the binding-chain B, slotted retaining-disk E, spring F, formed in one with the disk E and having slots *f* and *f'*, and lip G on the disk in proximity to the free end of the spring, substantially as described and shown.

8. In a paper-filing appliance, the combination, with a flexible binder and a perforator connected thereto, of a guard adapted to receive the point of the perforator in such manner as to form an extension thereof and to serve as a temporary paper-holding device, substantially as and for the purposes described.

9. In combination with the flexible binder B and perforator C, the perforator-guard M, having collar *m* and forming an extension of the perforator, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

O. F. WESTRUP.

Witnesses:
W. P. THOMPSON,
JOHN HAYES.