(No Model.) 2 Sheets—Sheet 1.

W. I. OHMER.

COMBINED LETTER FILE AND BINDING CASE.

No. 440,646. Patented Nov. 18, 1890.

Fig. 1.

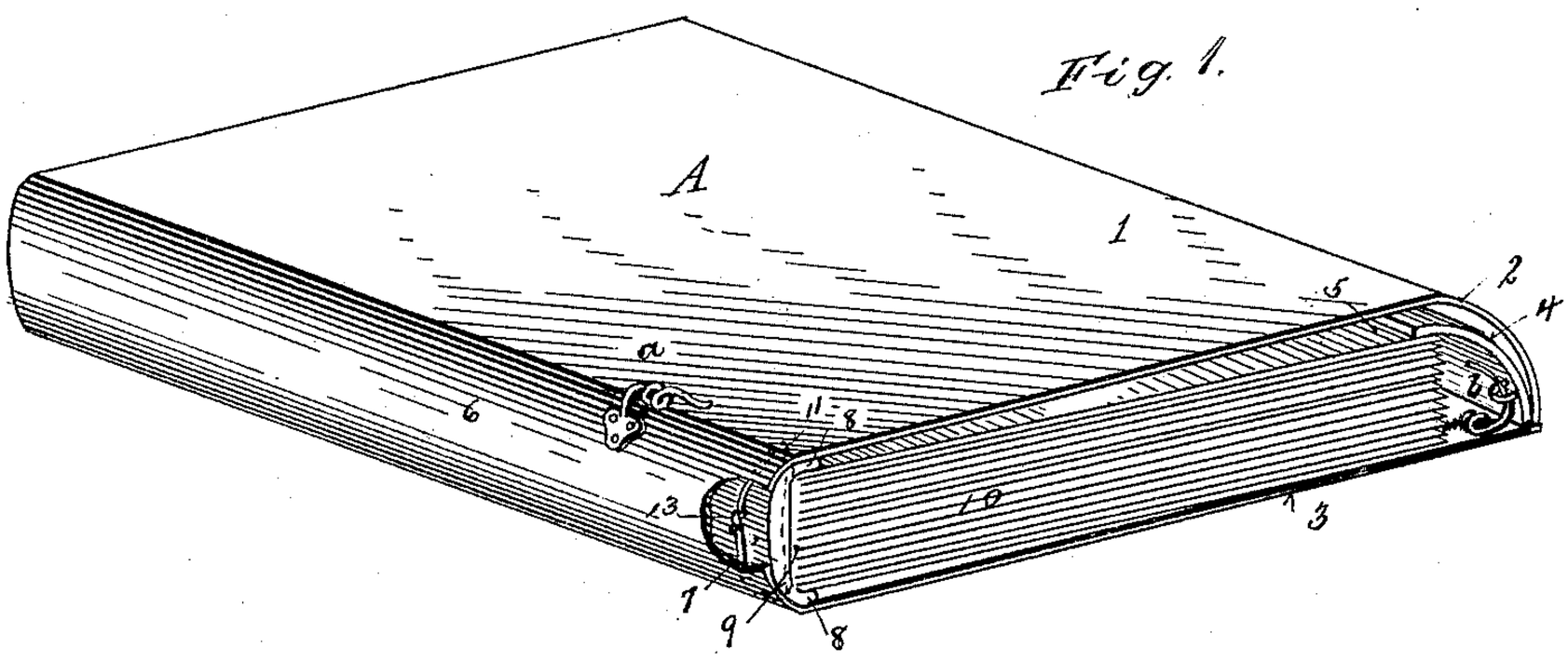


Fig. 2.

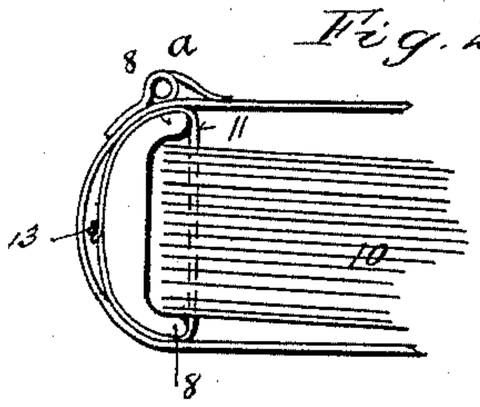


Fig. 3.

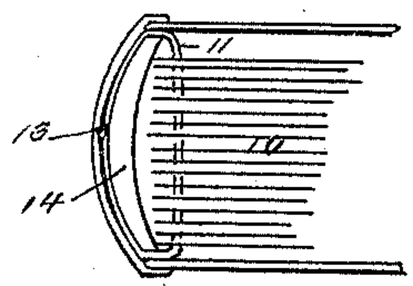


Fig. 4.

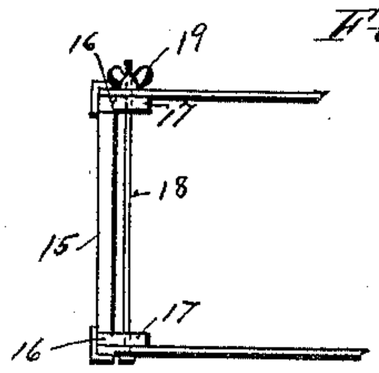


Fig. 5.

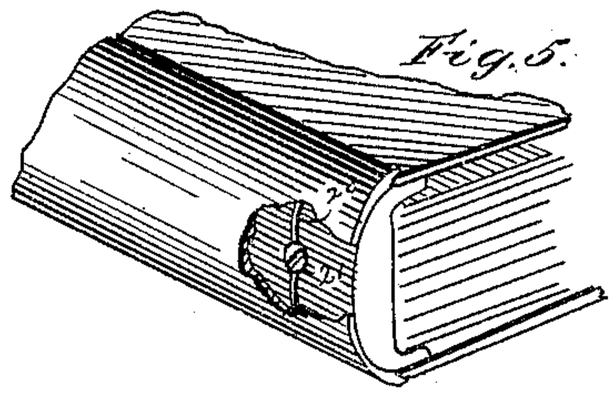
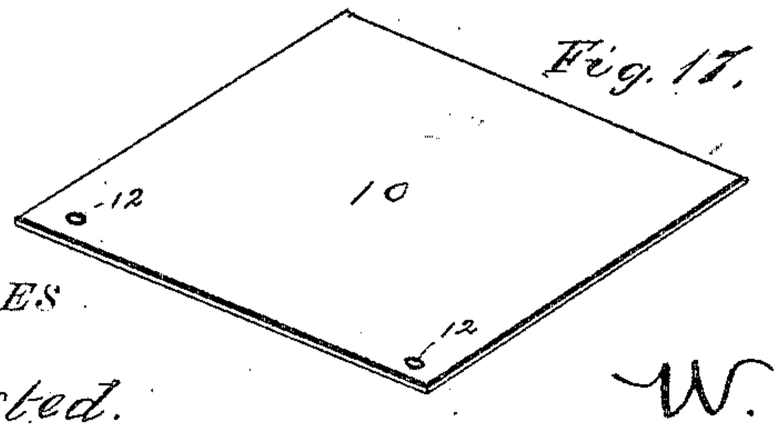


Fig. 17.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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COMBINED LETTER FILE AND BINDING CASE.

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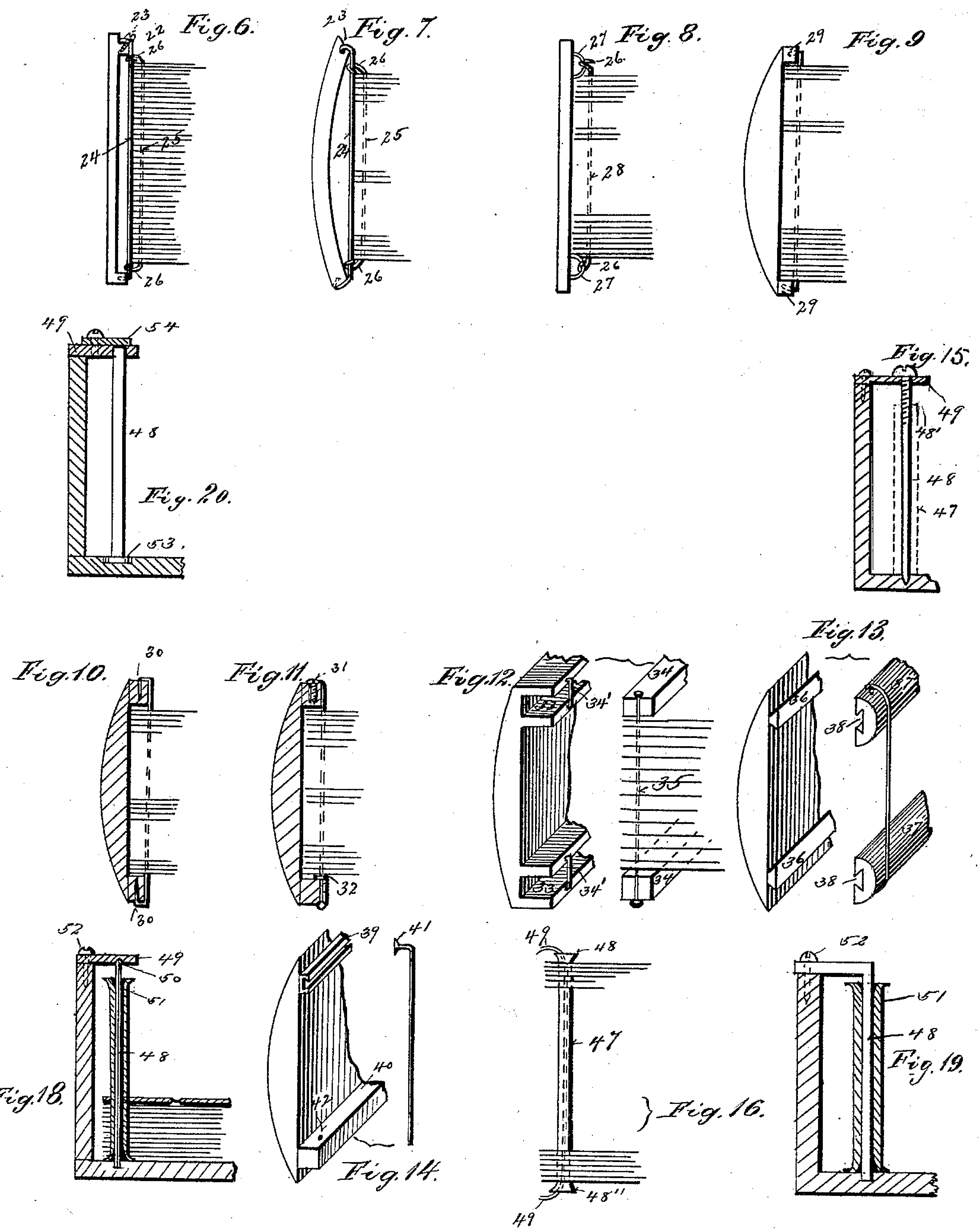

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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COMBINED LETTER-FILE AND BINDING-CASE.

SPECIFICATION forming part of Letters Patent No. 440,646, dated November 18, 1890.

Application filed March 13, 1890. Serial No. 343,817. (No model.)

To all whom it may concern:

Be it known that I, WILFRED I. OHMER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvemen's in a Combined Letter-File and Binding-Case, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a combined letter-file and binding-case.

The object is to produce a combined letter-file and binding-case in which the letter-file is so arranged within the binding-case as to admit of its being removed, if desired, either for the purpose of replacing a new one within the binding-case or for filing one away when filled.

With these objects in view the invention consists, broadly, of a binding-case having a letter-file secured therein by means of a removable binder; furthermore, in the peculiar construction of the back of the binding-case, and, finally, in the various novel details of construction, as will be hereinafter fully described in the specification, illustrated in the drawings, and more particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, and in which like letters and figures of reference indicate corresponding parts, I have illustrated one form of a back and binder for a combined letter-file and binding-case with modifications embodying the essential features of my invention, although the same may be carried into effect in other ways without in the least departing from the spirit thereof.

In the drawings, Figure 1 is a perspective view of a combined letter-file and binding-case, showing the letter-file secured in place therein, the front and lid of the binding-case being curved. Fig. 2 is a sectional view of the same, showing more clearly the peculiar construction of the back and the manner of securing the ends of the binder in place. Fig. 3 is a similar view showing another form of back. Fig. 4 is a view of a different form of binder. Fig. 5 is a perspective view showing a different manner of securing the ends of the binder in place from that shown in the other figure. Figs. 6, 7, 8, 9, 10, 11, 12, 13, and 14 are detail views showing various modifications of binders and the manner of securing them in place upon the backs. Fig. 15 is another modification of binder with the back in section. Fig. 16 is a detail view of a tube upon which is mounted the leaves of the letter-file; Fig 17, a leaf of a file, showing eye-holes; and Figs. 18, 19, and 20, detail views of other modified forms of binders.

Referring to the drawings, A designates a binding-case, which may be made of any suitable material. The front of the lid 1 is curved, as shown at 2, so as to rest upon the bottom 3, and the front 4 is curved so as to rest upon the letter-file 5 when closed.

It is to be understood, however, that I do not limit myself to the curved feature of the lid and front, inasmuch as I may construct them in the ordinary manner.

If desired, the lid may be made spring-actuated, as suggested at *a*, so as to cause it to close automatically, and the front 4 may be made spring-actuated, as suggested at *b*, to cause it to exert a constant pressure upon the letter-file, so that should its position be reversed—that is, held front side down—the contents of the letter-file will be prevented from dropping out. In order to guard further against the latter contingency, I provide a suitable fastening device for holding the lid closed, which may be either a simple form of spring-catch or tapes may be employed, which latter are tied in the usual manner.

The back 6 of the binding-case, which forms one of the essential features of this invention, is constructed either of wood or of any other suitable material, and is provided with a curved rear portion 7, forming the back proper of the binding-case, and with two outwardly-extending flanges 8, which may extend either the entire length of the back or a short distance thereof, as may be desired, so as to form a recess 9, in which the rear ends of the leaves forming the letter-file extend. These leaves 10 may be constructed of any suitable material, but preferably in this instance of oil-board, and are held in place in the binding-case either by passing a wire 11 through each of the apertures 12 and bringing the said wires over the back of the binding-case and

twisting or tying their ends together, as shown at 13 in Figs. 1, 2, and 3, or by employing tapes or strings, which latter are held in place by glue or any other suitable adhesive substance. As is well understood, the leaves are arranged in this manner so as to admit of their being moved vertically, and also to cause them to occupy a level plane, which could not be accomplished were they flexibly secured at their inner ends to the back. By varying the length of the flanges 8 from the back outward the apertures 12 in the letter-file may be placed at different distances from their edges, thereby overcoming any tendency of tearing out from constant use; but by providing the apertures with eyelets this obstacle will be effectually overcome.

In Fig. 3 I have shown a modification of the back shown in Figs. 1 and 2. In this instance the back 14 is made bow-shaped, either by steaming or by dressing to that shape. This latter construction will obviate any cutting away of the material to produce the flanges 8, which fact will be appreciated, as less labor will be required for their production.

In Fig. 4, which is another modification of the back, a vertical piece 15 has secured to it in any suitable manner two pieces 16, which extend at right angles to the vertical piece and form flanges 17, similar to the flanges 8 in Fig. 1. Through suitable openings in these flanges are inserted one or more rods 18, the upper ends of which are screw-threaded and carry thumb-nuts 19. By this construction it will be readily seen that the letter-file may be removed from the binding-case with ease.

In Fig. 5 the binder 20 is held in place upon the back by winding or twisting the ends of the wire or cord, forming the same around a screw 21, and then screwing the same to its seat. If desired, however, a screw may be inserted from the inside of the back and extend through the outside and carry on its outer end a thumb-screw, which may be turned down upon the binder after it has been twisted upon the screw.

In Figs. 6 and 7 I have shown another manner of securing the binder in place and also for holding the letter-file in place upon the binder. In Fig. 6 the back is constructed with the flanges similar to those described in the foregoing cases, with the exception that the top one 22 is dropped below the upper edge and forms a recess 23, in which the ends of the binder 24 are secured, either by a staple or in any other suitable manner. The letter-file in this case is mounted upon a wire 25, the upper and lower ends of which are formed into a loop 26, which fit around the binder. Thus when the letter-file has become filled, it will not be necessary to remove the binder, but only turn out the loops 26, when the letter-file may be removed from the binding-case and filed away. In Fig. 7 the same construction is shown, except that the back is curved, as shown in Fig. 3.

In Fig. 8, which is still another modification, the flanges are done away with and staples 27 are substituted in their stead. The binder is also done away with, and the letter-file is mounted upon a wire 28, similar to that shown in Figs. 6 and 7.

In Figs. 9, 10, 11, 12, 13, and 14 I have illustrated several other modifications of the ideas embodied in the other figures. In Fig. 9 the flanges 29 are secured to the back and the back itself is curved. In Fig. 10 the same general construction is shown as in Fig. 9, with a difference in the manner of holding the binder in place. In this instance the ends of the binder are forced into the flanges, as shown at 30. In Fig. 11 the binder is held in place upon the back by having its upper end bent down and into the flange and by inserting a screw or rivet 31 by the side of the wire, so as to hold it firmly in place, and the lower end is inserted in the flange. In this instance the binder is provided with a washer 32, which is rigidly secured to the said binder and is designed to prevent the letter-file from becoming detached from the binder when the same is removed. In Fig. 12 the back is provided with recesses 33, in which fits strips 34, carrying the binder 35. These strips are designed to fit within the recesses 33, and are held in place therein by means of staples 34′ or by any other suitable means. In Fig. 13 the back is provided with dovetailed tongues 36, which are adapted to be engaged by strips 37, having dovetailed grooves 38. In this case the binder is secured in any suitable manner to the strips, as by riveting or forcing the ends into the strips. In Fig. 14 the back is provided with a dovetailed strip 39, which may be either secured to the back or made integral therewith, and with a plain strip 40. The binder in this case is provided at one end with a button 41, adapted to fit within the dovetailed strip, and the other end is designed to be passed through an opening 42, after which it may be turned under so as to hold the binder securely in place.

The type of binder illustrated in connection with the series of compartments and letter-files is that shown in Fig. 18. In this form the binder 48 is secured to the bottom of the binding-case or filing-case, as it may be, while to the upper portion is secured a plate 49. In this plate is formed a recess 50 to fit over the end of binder-rod 48. Over this binder-rod is placed a tube 51, upon which the index-sheets composing the letter-files are strung. By loosening the screw 52, which holds the plate 49 to the back, the rod 48 is released, and the tube, with its index sheets or files, may be removed. In Fig. 19 substantially the same form is shown, except that the plate 49 and the rod 48 are formed in one piece. The tube may or may not be used with either of these forms, though it is preferred to use the tube when the foot of the rod is not enlarged.

In Fig. 20 the foot of the rod is enlarged by a head 53 and the tube is omitted, the head acting to prevent the index-sheets from slipping off of the rod when the rod is removed. The plate 49 in this form is permanently fixed to the back, and a supplemental plate 54 is fastened to the plate 49 and arranged to cover an opening in the plate 49, in which the upper end of the rod 48 is fitted. The plate 54 serves to hold the rod down.

In practice it may be found that it will be desirable to have the letter-file so constructed as to admit of its being removed from the binder without the leaves being separated. In order to accomplish this result a tube 47 is provided, which extends through the apertures of the leaves forming the letter-file, and is either riveted or upset at its upper and lower ends to form a shoulder 48''. (Shown in Fig. 16.) The binder-wire 49 may be secured to the back in any of the forms shown after passing through the tube.

In Fig. 15 the plate 49 has a screw-threaded hole, and the binder-wire 48 is in the form of an elongated screw and has a short threaded portion 48'. The tube 47 may or may not be used in this form.

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

1. The combination, with a binding-case, of a back having flanges and index-sheets and a removable binder engaging the flanges and the index-sheets.

2. A binding-case having a back provided with flanges, a binder adapted to engage said flanges, and index-sheets having tubes mounted therein and adapted to engage the said binder.

3. The combination, with the binding-case, of a back having a recess, index-sheets, and a binder or binders secured in front of the recessed portion upon which the index-sheets are mounted.

4. The combination, with a binding-case, of the back having outwardly-extending flanges and a binder passing around said flanges and secured to the said back, and index-sheets carried by the binder.

5. In a binding-case, the combination of a recessed back, a letter-file mounted in the recessed portion, and a removable binder for holding the letter-file in place, the said binder being provided with means whereby it may be readily attached to the binding-case and detached therefrom.

6. A binding-case having a plate secured to its back and a recess or hole in the plate, and a binder-rod fitted into the said recess or hole and upon the bottom of the case.

7. A binding-case having a plate secured to its back and a recess or hole in the plate, a binder-rod fitted into the said recess or hole and upon the bottom, and a tube fitted upon said rod, the tube passing through the index-sheets.

In testimony whereof I affix my signature in presence of two witnesses.

WILFRED I. OHMER.

Witnesses:

WARREN HULL,

H. M. PLAISTED.