C. D. TRUSSELL.

TEMPORARY BINDER.

APPLICATION FILED JAN. 20, 1908.

919,497. Patented Apr. 27, 1909.

Fig. 1.

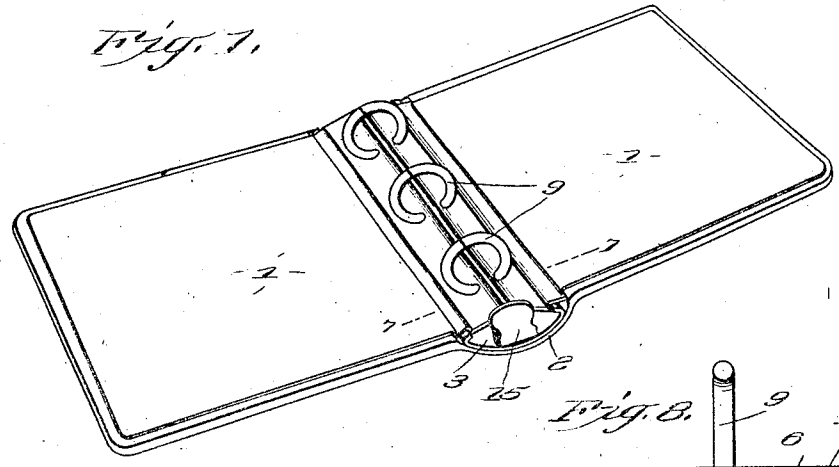


Fig. 8.

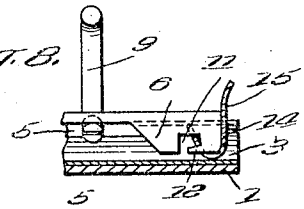


Fig. 2.

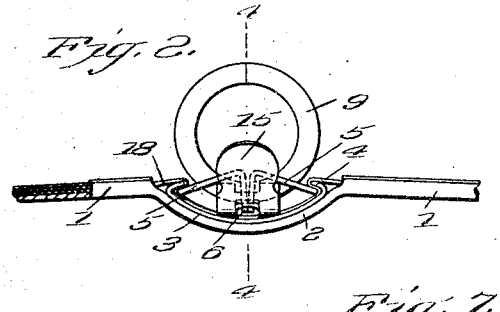


Fig. 3.

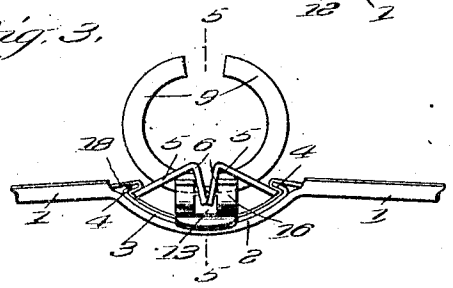


Fig. 7.

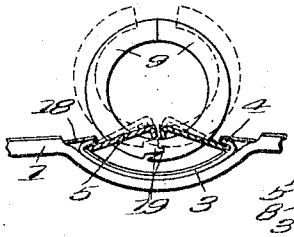


Fig. 4.

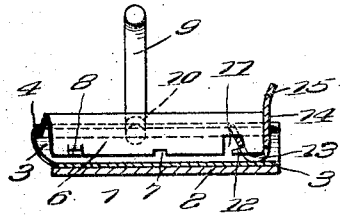


Fig. 5.

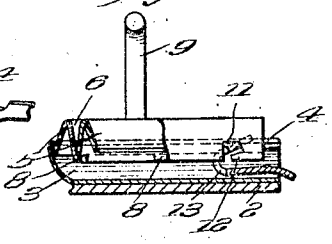


Fig. 6.



WITNESSES

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TEMPORARY BINDER.

No. 919,497. Specification of Letters Patent. Patented April 27, 1909.

Application filed January 20, 1908. Serial No. 411,356.

To all whom it may concern:

Be it known that I, CLARENCE D. TRUSSELL, a citizen of the United States, residing in the borough of Manhattan, New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Temporary Binders, of which the following is a specification.

My invention relates to temporary binders for blank books, account and memorandum books, and the like, in which the leaves may be inserted or removed at will.

The object of my invention is to provide a temporary binder of inexpensive, simple and strong construction which will present a neat appearance and which may be readily opened for the withdrawal or insertion of leaves and readily closed for the retention of the leaves.

Figure 1 of the drawings is a perspective view of my temporary binder, the covers being opened and the sheet-holding prongs being closed but no leaves being shown. Fig. 2 is an end view of the operating parts of the same, the sheet-holding prongs being in closed position. Fig. 3 is a similar view to Fig. 2, the sheet-holding prongs being shown in open position. Fig. 4 is a partial sectional view on the line 4—4 of Fig. 2. Fig. 5 is a similar view on the line 5—5 of Fig. 3. Fig. 6 is a perspective view of the operating lever, by means of which the sheet-holding prongs are opened and closed. Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 1 illustrating a modification. Fig. 8 is a view similar to Fig. 4, also illustrating the modification.

Referring to the drawings; 1 represents the covers of my temporary binder having the back 2. Lying inside the back 2 is the curved spring plate 3 provided with the inturned longitudinal edges 4 adapted to engage the outer edges of the right and left metallic plates 5 provided with the downwardly extending wings or flanges 6 provided with alternately and oppositely arranged notches 7 and bent integral teeth 8. The sheet-holding prongs 9 enter apertures 10 in the metallic plates 5 and abut against the wings 6, as best illustrated in Fig. 2 and Fig. 3. At one end of the binder are formed in the downwardly turned wings 6 oppositely arranged notches 11 having the inwardly extending projections 12 adapted to engage the aperture 13 in the operating lever 14 which is provided with an outwardly extending arm 15 and an inner arm 16 having the central notch 17. Inside the spring plate 3 extends the binding strip 18 which extends outward as indicated between the outer and inner layers of the cover and is held firmly engaged between the outer edges of plates 5 and the groove formed by the inturned edges 4 of spring plate 3.

In the modification illustrated by Figs. 7 and 8, the downwardly extending wings 6 are cut away throughout their length except at the end where they are engaged by the operating lever, as best illustrated in Fig. 8, the notches 7 and teeth 8 being omitted and the sheet-holding prongs 9 being brought together at their lower ends where they are provided with the male and female joints 19.

The sheet-holding prongs 9 are adapted to engage holes punched in the removable leaves (not shown) of the binder and retain them bound when the springs are in the position illustrated in Figs. 1, 2 and 4. When the springs are in closed position the operating lever 14 is positioned as indicated in Figs. 1, 2 and 4 so that its outer arm 15 extends upward and contacts with the outer ends of the plates 5 while the projections 12 in the downwardly extending wings 6 engage the aperture 13. The notch 17 is entered by the wings 6 which are straddled by the inward extensions of the arm 16. In this position of the parts the plates 5 are strained downward by the spring plate 3, inasmuch as their juncture along the inner edges of the wings 6 is slightly below the point of engagement of the edges of the plates 5 with the spring plate 3. The parts are all under tension and the operating lever 14 is held snugly thereby against the ends of the plates 5. The sheet-holding prongs 9 are closely fitted through the apertures 10 in the plates 5 and are soldered to the plates 5 and wings 6 for additional firmness. To open the sheet-holding prongs the outer arm 15 of operating lever 14 is turned by the fingers outwardly into the position indicated in Fig. 5. The lower edge of notch 17 during this movement will engage the upper edge of notches 11 in the wings 6 to shift said wings and plates 5 upward to the position indicated in Figs. 3 and 5 to open the springs and hold them open. This upward movement is slight, inasmuch as it is unnec-

essary to separate the outer ends of the prongs more than as indicated. The lower edges of wings 6 still remain slightly below the meeting lines between the edges of plates 5 and spring plate 3 so that the parts remain under tension and are held open merely by the upward pressure of the edge of notch 17 in operating lever 14. When now the outer arm 15 of operating lever 14 is turned upward and inward to its original position the spring pressure of spring plate 3 forces the parts to their initial position indicated in Fig. 2. Each notch 7 in the lower edges of wings 6 is engaged by an oppositely arranged tooth 8 slightly bent outward from the edge of the wing 6.

In the modification illustrated in Figs. 7 and 8 the wings 6 terminate at the inner circumference of the prongs 9 which continue until they meet in the male and female joints 19. The outer ends of the wings 6 remain, however, unchanged, with their notches 11 and other parts adapted for engagement with the operating lever 14.

What I claim as new and desire to secure by Letters Patent is:

1. In a temporary binder, a spring plate, oppositely arranged prong-carrying plates having inwardly turned wings with meeting edges below the lines of contact between the prong-carrying plates and the spring plate, and a lever engaging the inwardly turned wings adapted to shift them outwardly against the tension of the spring plate to open the prongs or to release the same to permit the tension of the spring plate to close the prongs.

2. In a temporary binder, a spring plate, oppositely arranged prong-carrying plates engaged by the spring plate and having at one end inwardly turned ears or wings, and an operating lever engaging said inwardly turned ears and adapted to be shifted to force the prongs to open or to release the same into closed position.

3. In a temporary binder, a spring plate, oppositely arranged prong-carrying plates engaged by said spring plate, an inwardly turned wing on each prong-carrying plate, and an operating lever engaging both of said inwardly turned wings.

4. In a temporary binder, a spring plate, prong-carrying plates engaged by said spring plate, an inner projection extending downward from one of said prong-carrying plates, and an operating lever engaging said downward projection.

5. In a temporary binder, a spring plate, oppositely arranged prong-carrying plates engaged by the spring plate, and an operating lever having a central aperture adapted to be engaged by inward projections from the prong-carrying plates.

Signed at New York in the county of New York and State of New York this 6th day of January A. D. 1908.

CLARENCE D. TRUSSELL.

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