No. 879,928. PATENTED FEB. 25, 1908.

C. D. TRUSSELL.

TEMPORARY BINDER.

APPLICATION FILED MAR. 17, 1906.

Fig. 1.

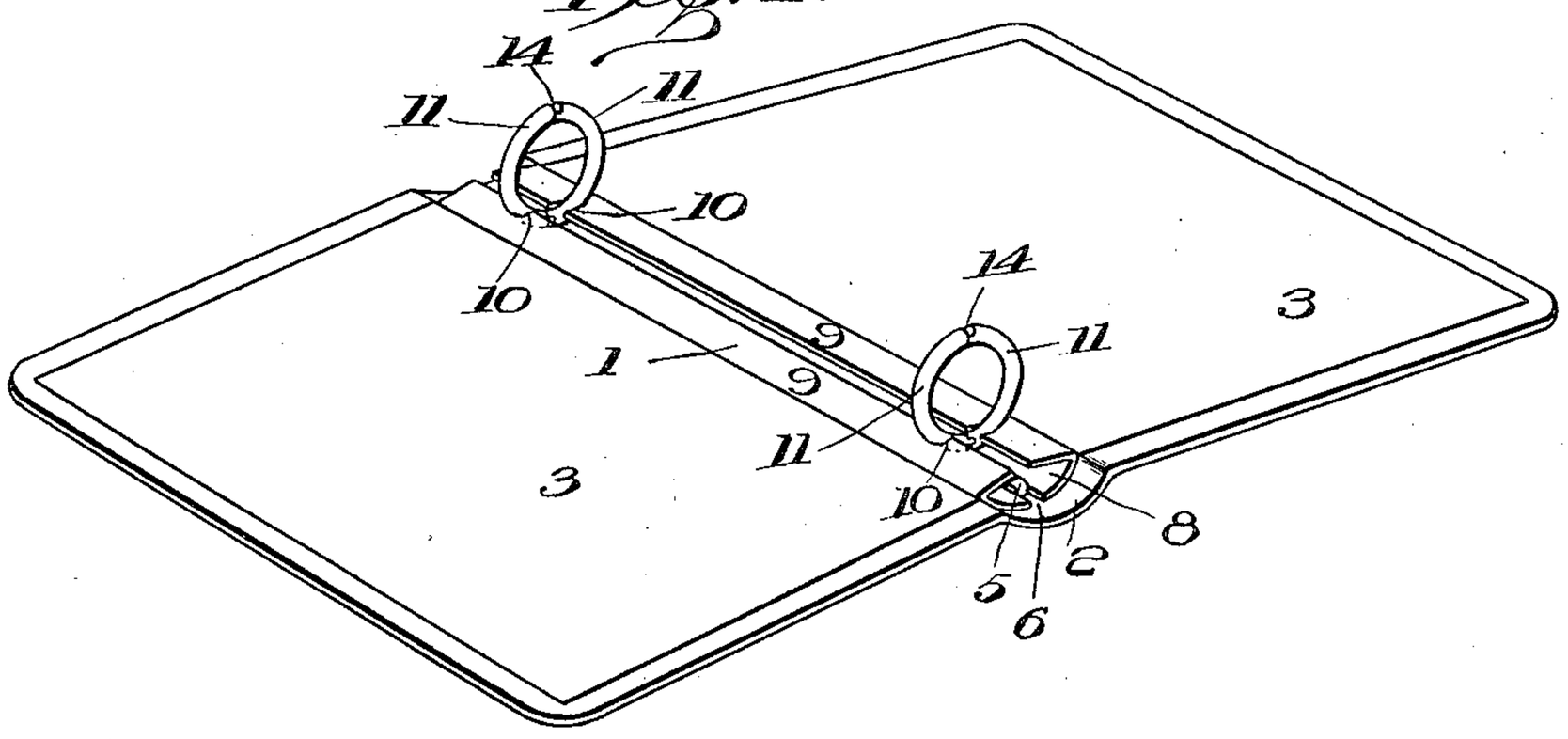


Fig. 2.

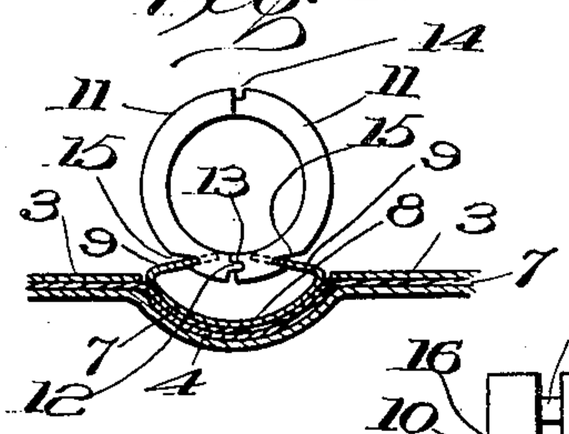


Fig. 3.

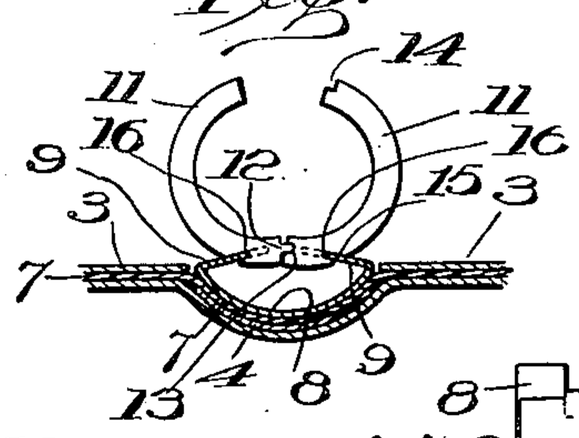


Fig. 4.

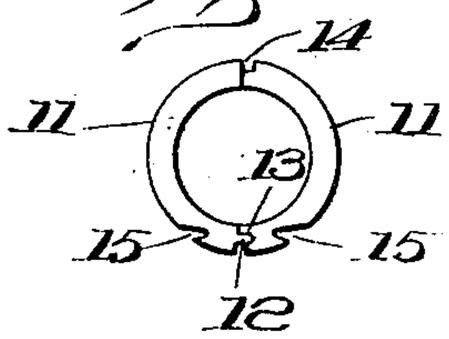


Fig. 5.

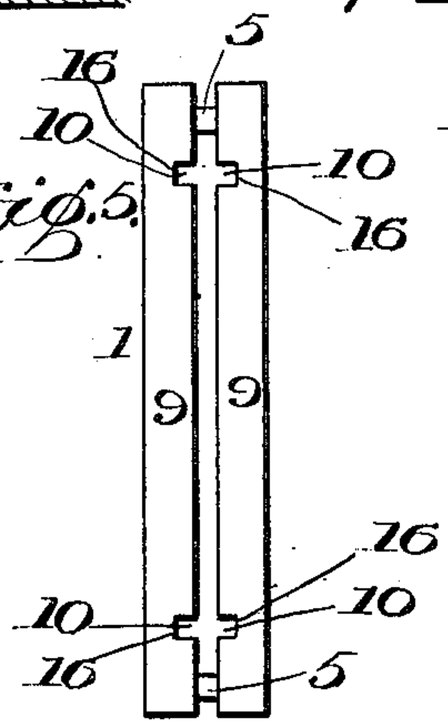
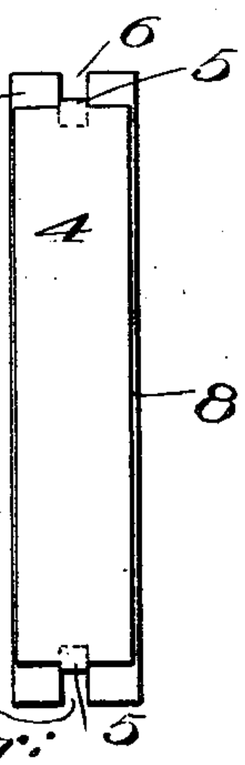


Fig. 6.



Witnesses:
Russel R. Vaughn
John S. Sheppard.

Inventor:
Clarence D. Trussell
by Joseph A. Attorney
Attorney.

UNITED STATES PATENT OFFICE.

CLARENCE D. TRUSSELL, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO TRUSSELL MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

TEMPORARY BINDER.

No. 879,928. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed March 17, 1906. Serial No. 306,541.

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, and its object is to provide a binder of few parts, simple in construction and cheap to manufacture, which may be easily and accurately opened and closed and held in either position.

Figure 1 of the drawings is a perspective view of my temporary binder, showing the same equipped with covers for protecting the leaves of the book. Fig. 2 is an enlarged side view of a pair of the sheet-holding prongs in closed position, the parts below being shown in section. Fig. 3 is a similar view showing the sheet-holding prongs in open position. Fig. 4 is an enlarged side view of the sheet-holding prongs. Fig. 5 is a plan view of the spring plate. Fig. 6 is a rear view of the same, showing the binding plate.

Referring to the drawings, 1 is a spring plate adapted to be secured to the back 2 and covers 3 by means of the binding plate 4 whose end projections 5 are bent through the notches 6 in the ends of spring plate 1 to clamp together said spring plate 1 and the binding plate 4 so as to hold securely between said plates the binding strip 7, whose edges extend between the layers of the cover 3 where they are pasted to secure the parts, as illustrated in Figs. 1, 2 and 3. The spring plate 1 is composed of a curved base portion 8, from which are bent inwardly the two parallel wings 9, which are provided with oppositely arranged notches 10. The sheet-holding prongs 11 are made in two pieces, one piece having at its lower end a tongue 12, adapted to engage a groove or notch 13 in the lower end of the opposite prong. A small notch 14 is formed in the upper end of one of the prongs. Each prong has a small slit or notch 15 in its side near its lower end, adapted to be engaged by the inner edge 16 of one of the notches 10 in the spring plate 1.

It will be observed that the operating parts consist of the spring plate 1 and the sheet-holding prongs 11. The purpose of the binding plate 4 is merely to retain, by clamping the binding strip 7, the operating parts in position along the back of the book. The projections 5 extend through the notches 6 in plate 1 and are clamped firmly over the edge of plate 1, as best shown in Figs. 1 and 6.

The spring plate 1, which is preferably made of metal, is resilient. When the sheet-holding prongs are in the closed position illustrated in Fig. 2, the joint formed by the tongue 12 and groove 13 is slightly below the level of the edges 16, which engage the notches 15, so that the spring pressure of the spring plate 1 holds the sheet-holding prongs 11 in closed position. To open the prongs, the finger-nail is inserted in notch 14 to pull the right-hand prong to the right. As the right-hand prong is moved to the right, it rocks slightly on the edge 16 as a center, so that its lower end is raised, carrying upward at the same time the lower end of the opposite prong, which rocks on the oppositely arranged edge 16, thus shifting the upper portion of the left-hand prong to the left. The first part of this movement is made against the pressure of spring plate 1 but, as the lower joint between the two prongs is raised, it passes the level of the edges 16 so that the pressure of the spring plate 1 then serves to force the prongs apart and into the position shown in Fig. 3. The upward movement of the prongs is terminated by two stops acting concurrently. The upper edge of each notch 15 contacts simultaneously with the upper surface of each wing 9 of spring plate 1, and, at the same time, the ends of the prongs meet below the joint as shown in Fig. 3. To close the prongs, they are moved together by the fingers. This movement lowers the joint below the level of edges 16 so that spring plate 1, at the moment the joint passes the central position, serves to snap the prongs 11 together and retain them in the position shown in Fig. 2. The sides of the notches 10 serve to hold the prongs 11 from movement sidewise and in exact alinement. The notches 14 are especially useful with binders of small size where it would be inconvenient to pull the prongs apart by grasping them with the fingers.

The operating parts and the binding plate 4 are removable from the covers of the book. To detach the parts, one of the projections 5 should be raised away from engagement with spring plate 1, which is then free to be lifted and pulled from engagement with the opposite projection 5. When the spring plate 1,

carrying the prongs 11 has been removed, the binding plate 4 may be withdrawn from its position between binding strip 7 and back 2. To reassemble the parts, the binding plate 4 is slipped into position between binding strip 7 and back 2. One of the projections 5 is then bent inward and engaged by the edge of a notch 6 in spring plate 1, which is then held closely against binding strip 7 while the opposite projection 5 is bent over the edge of the adjacent notch 6 to secure the parts in position.

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

1. In a temporary binder, a spring plate having integral parallel wings, and mating prongs notched for engagement with said wings and retained by the resiliency of said spring-plate in open or closed position.

2. In a temporary binder, a spring plate having oppositely arranged notches, mating prongs having notches adapted to engage the edges of the notches in the spring plate and a joint for each of said mating prongs adapted to be moved above or below the level of the notches in the spring plate for opening or closing said prongs.

3. In a temporary binder, a resilient member carrying mating prongs notched in their periphery for engagement with integral wings of said resilient member, and means whereby the spring of said member retains said prongs in open or closed position.

4. In a temporary binder, a series of mating prongs having notches in their sides and a spring member adapted to engage said notches and to retain the prongs open when their joints are in one position and to hold the prongs together when the joints are in another position.

5. In a temporary binder, an integral spring member, a series of mating prongs directly and loosely carried upon said spring member by engagement with edges thereof and means to shift the joints of the prongs above or below the points of contact between the prongs and the spring member to retain the prongs in open or closed position.

6. In a temporary binder, a set of operating parts composed of an uneven number of integral pieces, viz: any number of mating prongs each having a right and left jaw and a spring member directly carrying all the prongs and adapted to retain each set of prongs in open or closed position.

7. In a temporary binder, a spring member, and a series of mating prongs directly carried on said member each pair of mating prongs having a tongued joint adapted to stop the opening movement of said prongs.

8. In a temporary binder, a spring plate, and a binding plate removably attached to the spring plate by end projections adapted to be bent upward and inward to engage said spring plate and secure thereto a binding strip.

9. In a temporary binder, a spring plate notched at each end and a binding plate adapted to be held thereon removably by end projections engaging said end notches in said spring plate to secure a binding strip between the spring plate and the binding plate and present a smooth surface at the back of the binder.

10. In a temporary binder, a spring member, a binding plate, a binding strip so secured to the covers as to form a sheath for the entrance of the binding plate, and end projections on the binding plate adapted to engage the spring member to hold the operating parts, back and covers together.

Signed at New York city in the county of New York and State of New York this 15th day of March, A.D., 1906.

CLARENCE D. TRUSSELL.

Witnesses:

JOSEPH A. STETSON,

MINNIE KAUFFMAN.