June 16, 1936. P. O. UNGER 2,044,138

SHEET RETAINING DEVICE

Filed Feb. 14, 1934

FIG. 1

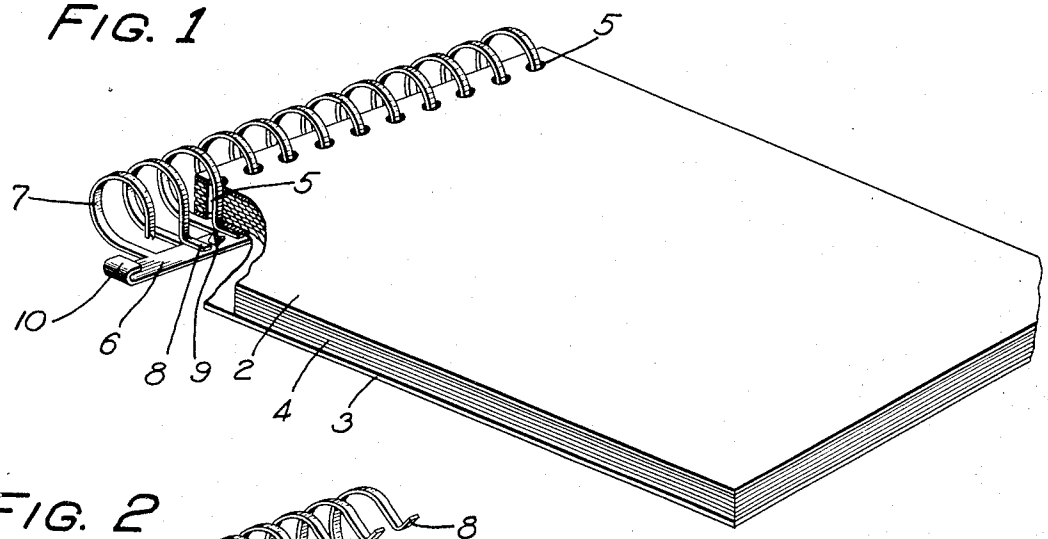


FIG. 2

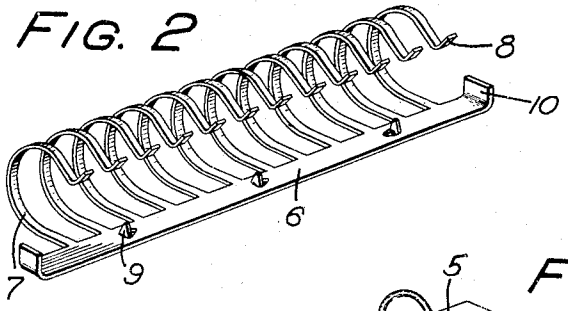
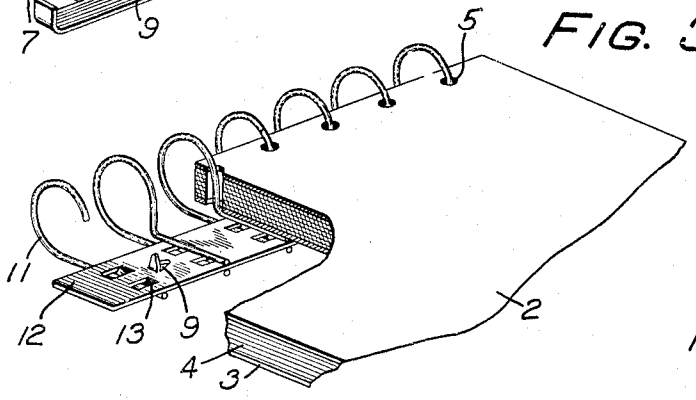


FIG. 3



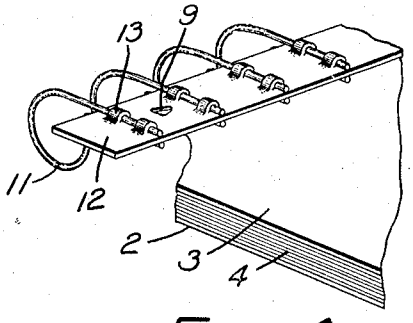


FIG. 4

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SHEET RETAINING DEVICE

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Application February 14, 1934, Serial No. 711,095

5 Claims. (Cl. 281—25)

This invention relates to a sheet retaining device which includes means for holding a plurality of loose sheets in permanently bound relationship while allowing considerable freedom of movement to the individual sheets.

It is an object of this invention to provide simple and inexpensive means to bind a plurality of sheets together permanently. It is a further object of this invention to provide an economical and efficient method of permanently binding a plurality of sheets. Other objects of this invention will become apparent upon reading the following description taken in conjunction with the accompanying drawing in which

Figure 1 is a perspective view of one embodiment of the invention, with parts broken away to facilitate the illustration of the structure;

Figure 2 is a perspective view of the binding member of Figure 1 before the sheets and covers are assembled thereon;

Figure 3 is a fragmentary perspective view of another embodiment of the invention; and

Figure 4 is a fragmentary perspective view of the rear side of the device illustrated in Figure 3.

In the drawing, the reference numbers 2 and 3 indicate a pair of cover members positioned on opposite sides of a plurality of loose sheets 4. The sheets and covers are apertured adjacent one edge, as indicated at 5.

The binding member includes a base member 6 and a plurality of integral sheet retaining prongs 7. The binding member is blanked out of a single piece of thin sheet metal and is then formed into the shape illustrated in Figure 2. The free ends 8 of the prong members are bent at an angle to the curvature of the body portions of the prongs for a purpose to be hereinafter described. The base member 6 is provided with a plurality of clinching tongues 9 that are preferably struck out therefrom in the blanking operation.

The covers and sheets are impaled on the prongs 7 while the binding member is in the condition illustrated in Figure 2. The ends 8 of the prong members are bent to bring the ends 8 substantially into juxtaposition with the base member. The cover member 3 is held against the prong ends 8 and is pressed over the tongues 9. The tongues 9 and the ends 10 of the base member are bent over against the inner surface of the cover member 3. The cover member 3 is maintained in position adjacent the ends 8 so that the cover member 3 is clinched securely against the base member 6 and the ends 8 of the prongs are permanently held between the cover and the base member. Although it is preferred to have the ends 10 of the base member bent against the cover because of the added security, it will be understood that where such added security is not necessary, the turned over ends 10 may be omitted. The top cover 2 and the sheets 4 are free to turn on the prongs 7 so that the top cover may be turned back against the bottom cover and any sheet may be exposed for reading or writing without having the preceding sheets in the way.

In the embodiment illustrated in Figures 3 and 4, the sheet retaining prongs 11 are formed separately from the base member 12 and are secured thereto by means of a plurality of straps 13 struck out from the base member, or in any other suitable manner. In this embodiment, the sheet retaining prongs are preferably formed of wire. The base member 12 is provided with tongues 9, and may have its ends turned over the bottom cover, as indicated at 10, Figure 1, if desired.

Although I have described a few preferred embodiments of my invention in considerable detail, it will be understood that the description thereof is illustrative rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact details described, except as limited by the appended claims.

I claim:

1. In a sheet retaining device, a cover member, a plurality of sheets positioned adjacent said cover member, a metal plate permanently secured to the underside of said cover member, and a plurality of prongs each permanently fixed at one end to said metal plate and passing through said cover member and sheets, the opposite ends of said prongs being permanently positioned between said cover and said metal plate.

2. In a sheet retaining device, a pair of cover members, a plurality of sheets positioned between said cover members, a metal plate permanently secured to one of said cover members, and a plurality of prongs passing through said sheets and said cover members, one end of each of said prongs being integral with said plate, and the other end of each prong being positioned between said plate and the cover member to which the plate is secured.

3. In a sheet retaining device, a cover member, a metal plate permanently secured to said cover member, a plurality of straps integral with said plate, and a plurality of wires carrying sheets impaled thereon, said wires being secured at one end

to said plate by means of said integral straps, the other ends of said wires being secured between said plate and said cover.

4. In a sheet retaining device, a pair of cover members, a plurality of sheets positioned between said cover members, a plurality of completely enclosed apertures in said cover members and sheets, a metal plate permanently secured to one of said cover members, and a plurality of prongs extending from said plate, said prongs passing through the apertures of said cover members and sheets and having their free ends permanently positioned between said metal plate and the cover member to which the plate is secured.

5. In a sheet retaining device, a pair of cover members, a metal plate permanently secured to the outer side of one of said cover members, a plurality of prongs, and a plurality of sheets impaled on said prongs between said cover members, one end of each prong being permanently secured to said plate, the other end of each prong being positioned between said plate and said cover member to which the plate is secured.

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