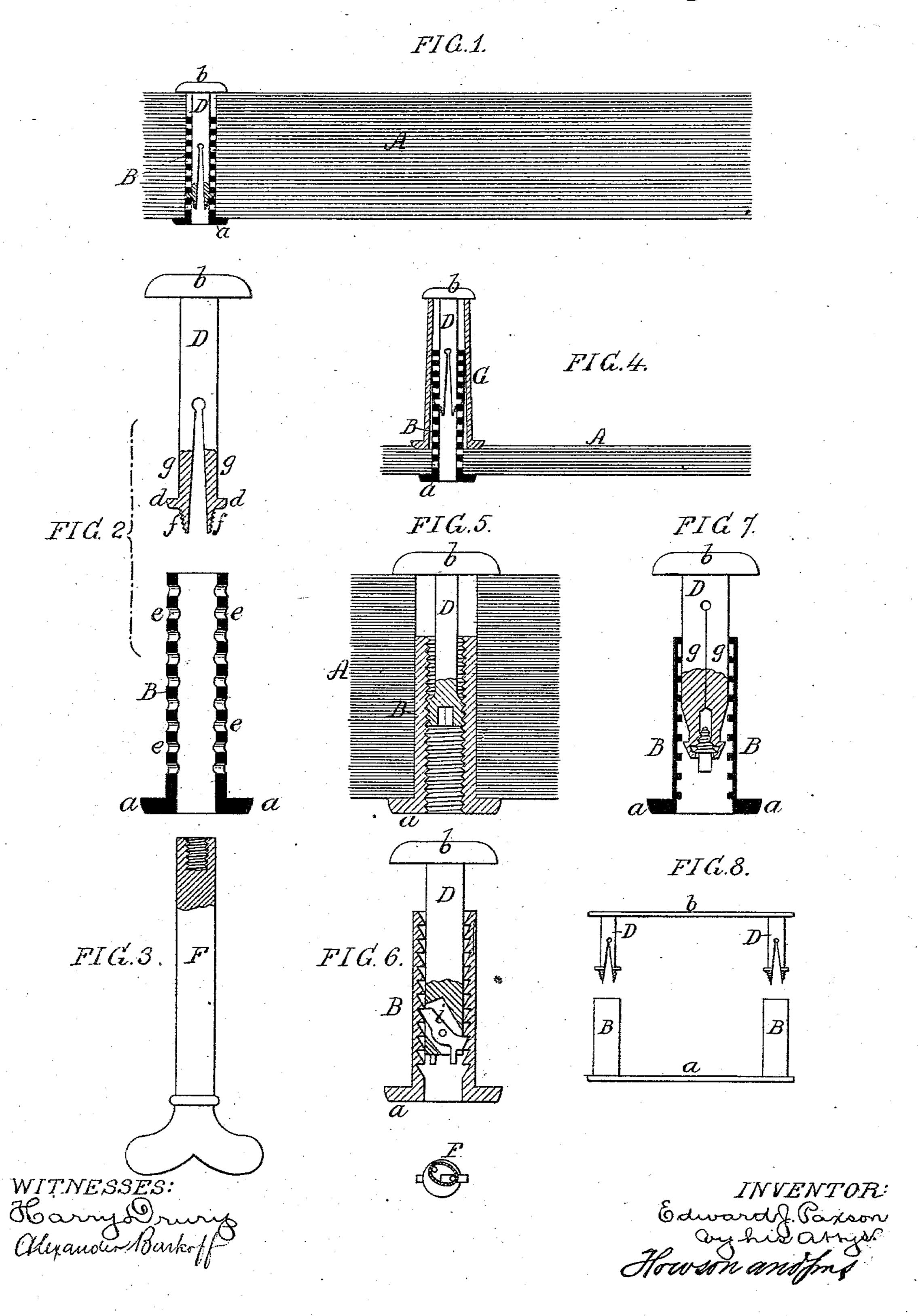
E. J. PAXSON.

TEMPORARY BINDER.

No. 283,653.

Patented Aug. 21, 1883.



United States Patent Office.

EDWARD J. PAXSON, OF PHILADELPHIA, PENNSYLVANIA.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 283,653, dated August 21, 1883.

Application filed February 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. PAXSON, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented 5 certain Improvements in Temporary Binders, of which the following is a specification.

The object of my invention is to provide a device whereby sheets of paper or other material can be securely fastened together, but in such a manner that one or more sheets can be readily detached when necessary, and as read-

ily reinserted after use.

In the accompanying drawings, Figure 1 is a view of a number of sheets of paper or other material secured by my improved fastener; Fig. 2, a view, on a larger scale, of the two parts of the fastener detached from each other; Fig. 3, a view of a key for unlocking the fastener; Fig. 4, a view of the fastener, showing how the same is employed for securing a few sheets together; and Figs. 5, 6, 7, and 8, views showing modifications of the invention.

In Fig. 1, A represents a number of sheets of paper or other material, in each of which, 25 near one edge, is formed an opening, the openings of all of the sheets coinciding with each other, and being adapted for the reception of a tube, B, having at one end a flange or head, a, bearing on the bottom sheet of the series.

stem, D, having a head, b, for bearing on the top sheet of the series, this stem being split at the inner end, so as to form two prongs, g g, each having a lug, d, adapted to notches e in the tube B. The lugs d are rounded or beveled on the under side, so that on thrusting the stem into the tube the lugs will yield and engage with one set of notches after another until the stem D has been introduced into the tube as far as the mass of sheets will permit, the engagement of the lugs with the notches preventing the withdrawal of the stem D, so that the sheets are firmly confined between the heads a and b.

In order to release the fastener, the prongs g of the stem D must be contracted, so as to withdraw their lugs from the notches in the tube. To effect this I form on each of said prongs a tapering threaded projection, f, the contraction of the prongs being effected by a

key, F, having an internally-threaded opening adapted for the reception of the projections f, so that on applying the key to said projections and turning it the prongs will be contracted and the stem D released from the 55 control of the tube B, from which it may be thrust by the key, and then removed from the latter.

When only a few sheets are to be clamped together, I interpose between the top sheet and 60 the head b of the stem D a tubular washer, G,

as shown in Fig. 4.

Different modes of locking the stem D to the tube B may be adopted in carrying out my invention. For instance, the inner end of the 65 stem may be enlarged and threaded for adaptation to an internal thread in the tube, as shown in Fig. 5, an opening of suitable form being made in either end of the stem for the reception of a key, whereby said stem can be 70 screwed into or unscrewed from the tube.

Another modification is shown in Fig. 6, in which the inner end of the stem D carries a lever, i, the arms of which engage with notches in the tube B, the lever being operated so as 75 to withdraw the arms of the same from the notches by means of an oval key adapted to engage with a pin on the lever and a fixed pin on the end of the stem. When the stem is split, as in Figs. 1 and 2, a tapered screw-plug 80 may be used, as shown in Fig. 7, to expand the prongs g, so that their lugs d will engage with the internal notches of the tube B, the prongs possessing such elasticity that they will be contracted when released from the expand-85 ing influences of the tapered plug.

In some cases two or more tubes B or stems D may be combined with a single head, as shown in Fig. 8, a better hold upon the sheets being thus secured than when contracted heads 90

are used.

By adapting the tube and stem directly to openings formed in the sheets neatness and compactness are insured, the sheets thus secured together being handled as conveniently 95 as a bound book; and in combination with a book-back the device may be used to permanently or temporarily bind the sheets into book-form.

Instead of forming openings in the sheets, 100

the edges of the same may be slotted for the reception of the fastener, and in some cases the tube B may be made so as to cut an opening in the sheets for its reception.

5 I claim as my invention—

1. In a temporary binder, the combination of the tube B, having a head, a, with the stem D, having a head, b, and adapted to slide in the tube B, the inner end of said stem being constructed as described, whereby it may be caused to engage with or may be disengaged from the tube B, as set forth.

2. The combination of the tube B, having a head, a, the stem D, having a head, b, and having its inner end constructed for engage-

ment with the tube, and a key, whereby the stem is freed from engagement with the tube, as set forth.

3. The combination of the internally-notched tube B with the stem D, having elastic prongs 20 g, with lugs d, and with a device for expanding or contracting the prongs, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two sub-

scribing witnesses.

EDWARD J. PAXSON.

Witnesses:
Thomas Dugan,
Harry Smith.