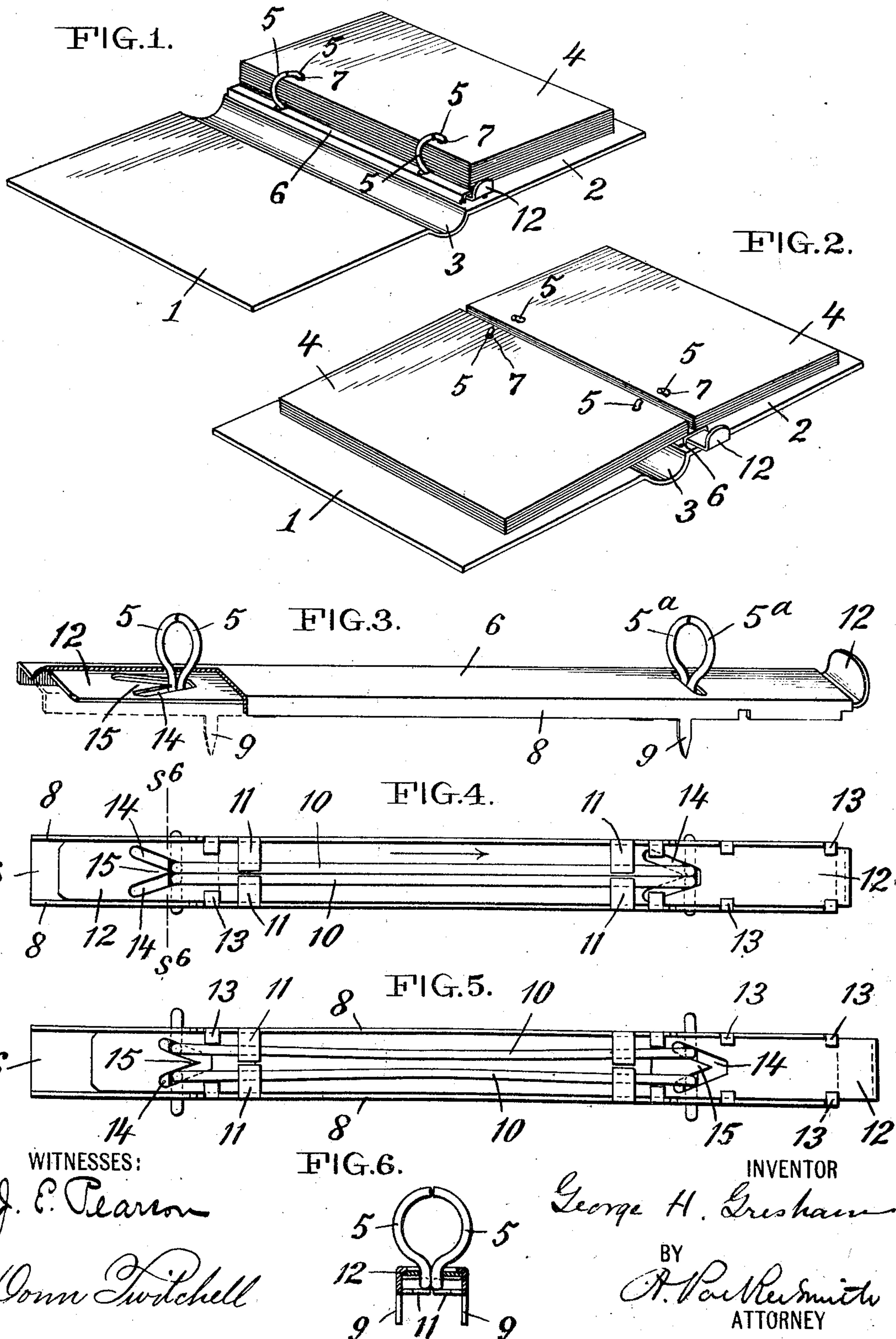


No. 793,370.

PATENTED JUNE 27, 1905.

G. H. GRESHAM.
TEMPORARY BINDER.
APPLICATION FILED MAY 23, 1903.

2 SHEETS—SHEET 1.

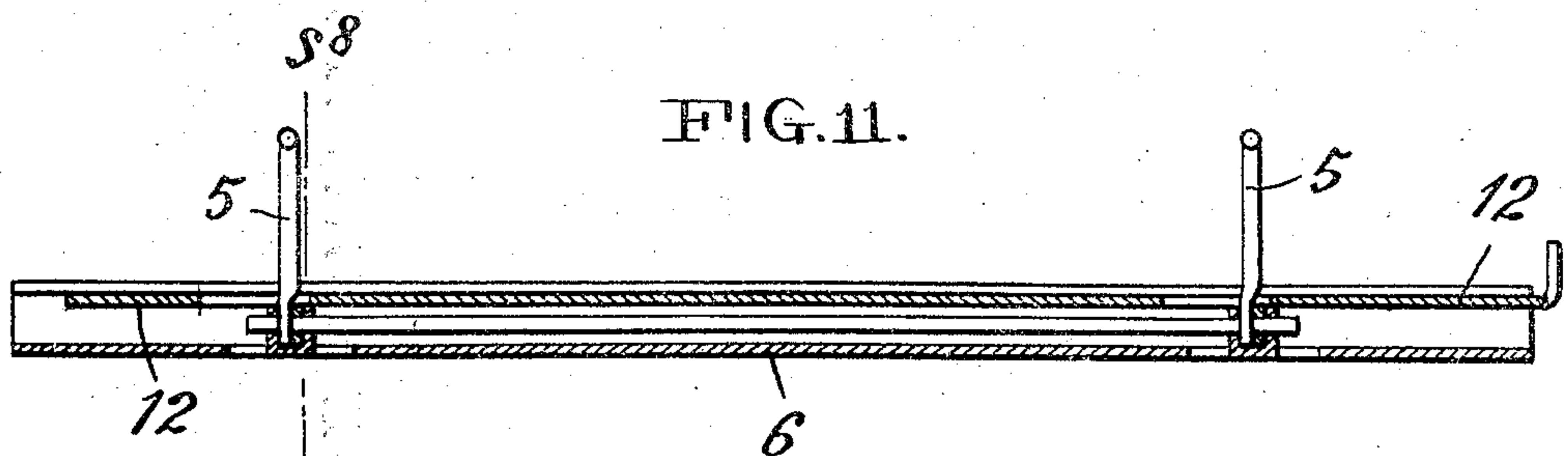
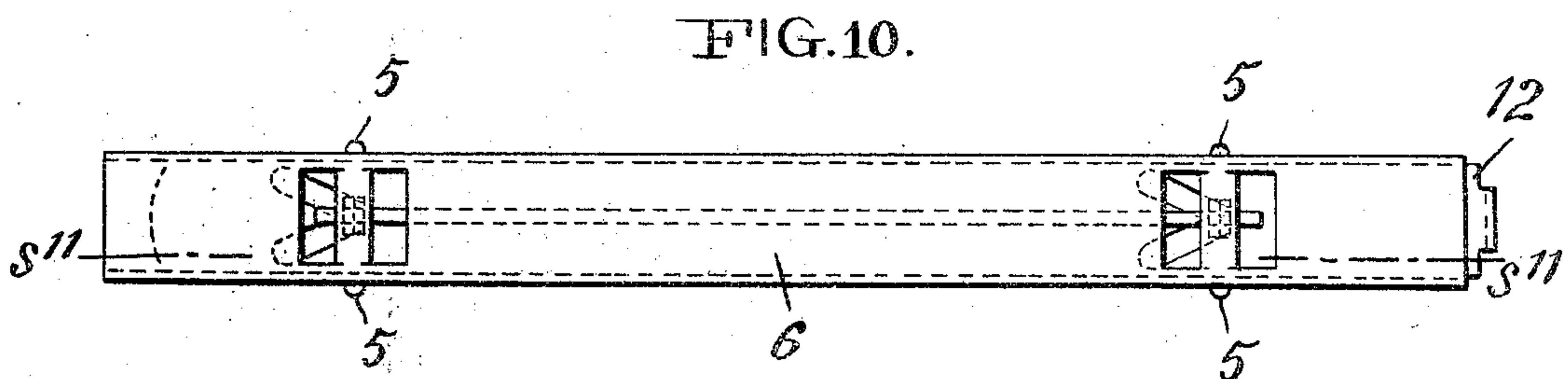
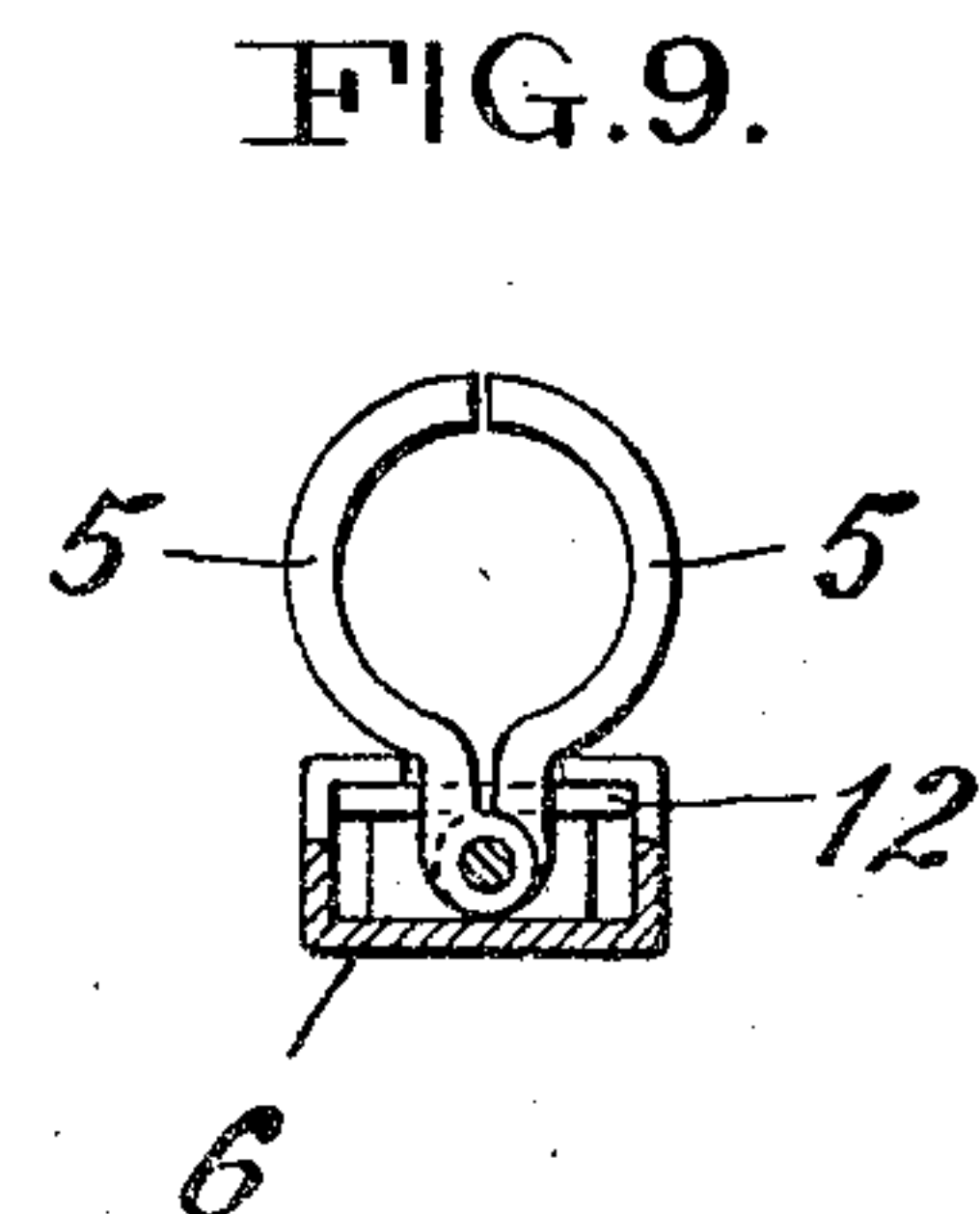
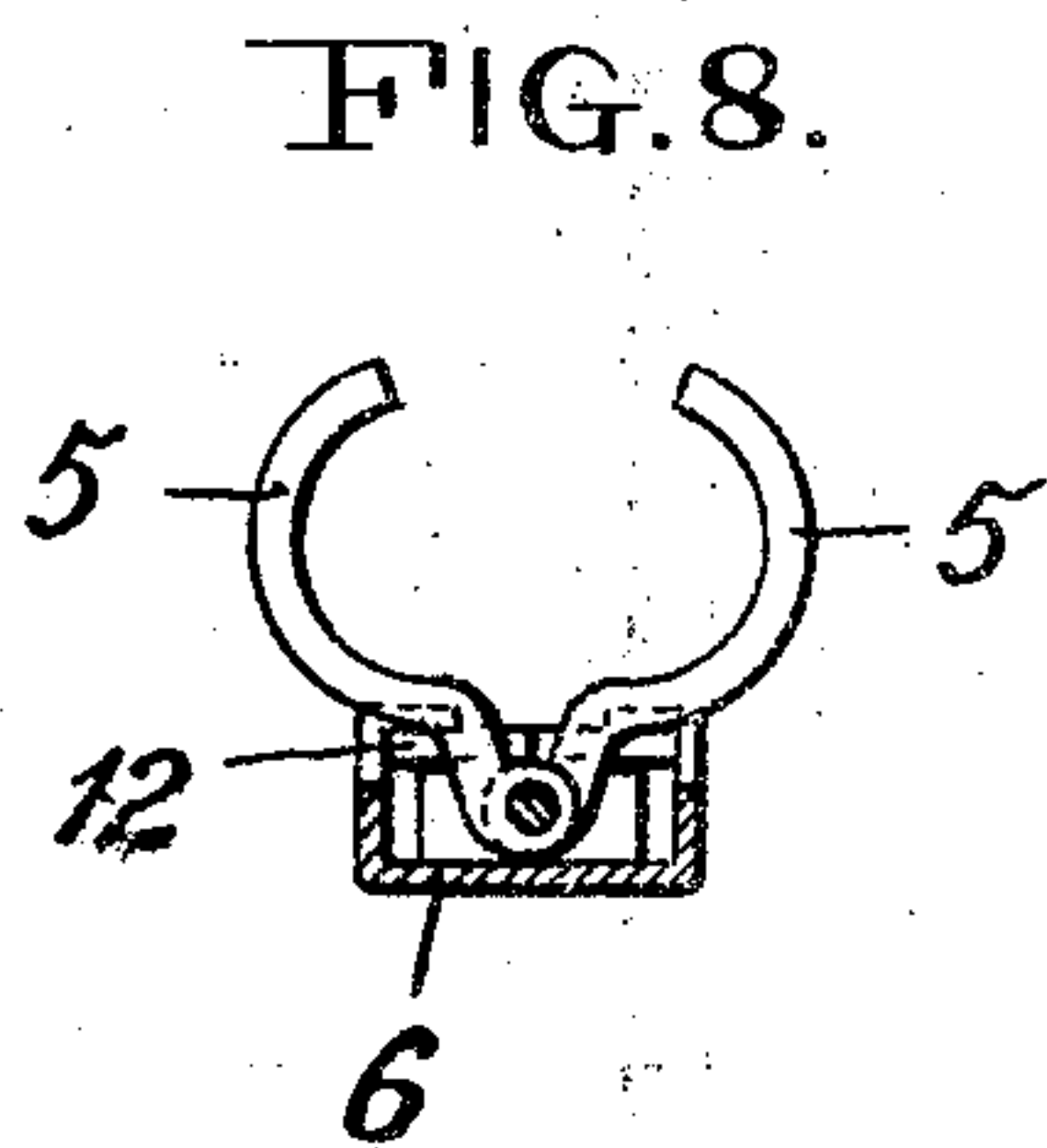
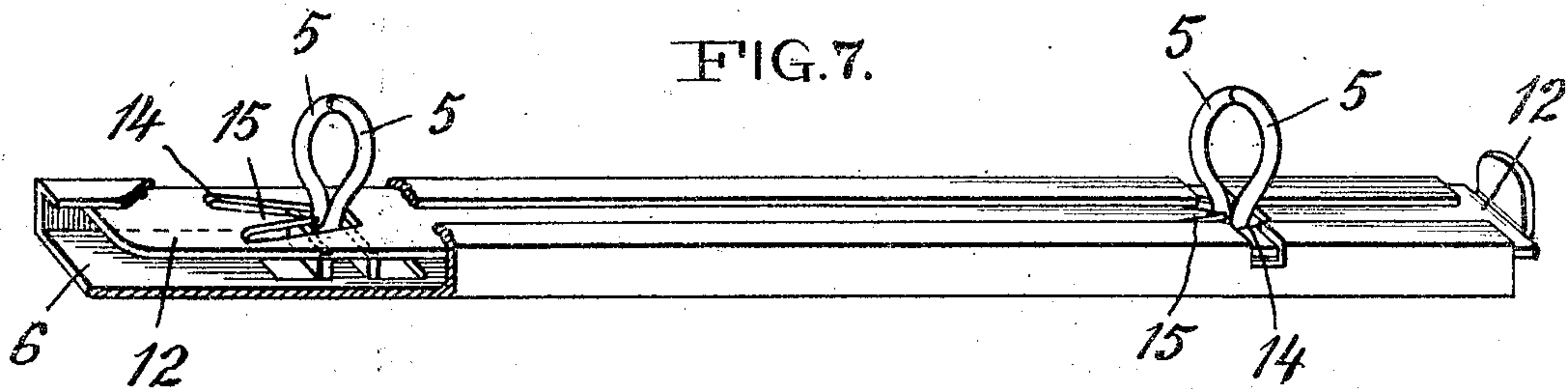


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2 SHEETS—SHEET 2.



WITNESSES:
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TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 793,370, dated June 27, 1905.

Application filed May 23, 1903. Serial No. 158,393.

To all whom it may concern:

Be it known that I, GEORGE H. GRESHAM, a citizen of the United States of America, and a resident of the borough of Manhattan, city, county, 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 generally to temporary binders or loose-leaf books, and, while not limited in its application to a particular type or size of book, the invention as herein embodied is specially designed for use in connection with the class known as "memorandum" or "price" books and the like.

My invention in its preferred form is illustrated in the accompanying drawings, throughout the several views of which like numerals of reference indicate corresponding parts.

In the drawings, Figure 1 is a view in perspective of a loose-leaf book constructed in accordance with my invention, the same being shown open or with the cover thrown back. Fig. 2 is a similar view showing the binder adjusted for the insertion or removal of one or more sheets. Fig. 3 is a view in perspective of the binder removed from the book and portions of the casing broken away to more clearly show the construction and arrangement of the operating parts. Fig. 4 is a bottom plan view of the same, showing the relative position of the slide-bar when the leaf-retaining jaws are closed. Fig. 5 is a similar view showing the slide-bar in an adjusted position to open the leaf-retaining jaws. Fig. 6 is a detail cross-sectional view thereof, taken on the line $s^8 s^8$ of Fig. 4. Fig. 7 is a view in perspective of a modified form of binder with portions of the casing broken away to show the operating parts. Fig. 8 is a cross-sectional view taken on the line $s^8 s^8$ of Fig. 11, showing the leaf-retaining jaws open. Fig. 9 is a similar view showing the jaws closed. Fig. 10 is a bottom plan view, and Fig. 11 is a longitudinal sectional view taken on the line $s^{11} s^{11}$ of Fig. 10.

Referring now to the drawings, I have

shown an ordinary form of loose-leaf book; but it will be understood that I do not wish to in any wise limit myself to the use of the same, as it forms no part of the present invention and is merely employed herein for the purpose of completing an operative illustration. Other types, styles, sizes, &c., may obviously, therefore, be used and substantially the same results obtained.

The book, as shown, comprises covers 1 2, either flexible or stiff, a back 3, to which the covers are suitably connected, and a number of loose leaves or sheets 4. The present invention consists, essentially, in means for temporarily binding the leaves or sheets between the covers in such manner as to permit one or more to be readily inserted or removed at any point without disturbing the order or arrangement of the other sheets in the pile. For this purpose I employ, as shown in the drawings, cooperating pairs of curved or approximately semicircular jaws 5 5, suitably mounted on a plate 6, secured to one of the covers and relatively arranged to engage perforations 7 7 of the sheets in the usual manner. The jaws unite when closed, as shown in Fig. 3, to form locking loops or rings by which the sheets are removably secured in position.

The plate 6 is stamped up from sheet metal and suitably shaped to contain the operating parts of the binder. It is flanged longitudinally by having its opposite edges 8 8 bent over, and as a convenient means of securing the same to the cover a number of integral spur-like projections 9 9 are provided as extensions of the flanges, and after being forced through the cover of the book they are secured by having their projecting extremities bent over in opposite directions.

The sheet-locking jaws project in pairs through slots or openings in the plate and when used in connection with memorandum or other small size books are formed of flat or round wire. In the preferred form the jaws 5 5 and 5^a 5^a of each pair are formed by the bent-up extremities of wires or rods 10 10, which extend side by side along the under side of the plate and are held in position by

suitably-disposed lugs 11. The jaws might, however, be formed in other ways, as will be readily understood by those skilled in the art. While I have only shown two pairs of jaws, it will be understood that this number may be increased without materially altering the construction or arrangement of the parts.

The opening and closing of the jaws are preferably effected positively by means of a peculiarly-slotted slide-bar 12, and, as will be seen, the operation or adjustment of the jaws does not, therefore, depend upon the resilient qualities of the metal forming the wires 10 10. It will be understood, however, that while the use of highly resilient metal is not essential its use is not objectionable, as it may be made to serve in assisting the action of the slide-bar either on opening or closing the jaws. The slide-bar is mounted on the under side of the plate, between it and the wires 10 10, and is retained in position by guide-lugs 13 13, &c., formed by bent-over portions of the plate-flanges.

The slots 14 of the slide-bar are approximately V-shaped and coincide with the openings in the plate. The wires 10 10 pass through these registering openings and rest normally—that is to say, when the jaws are closed—in the narrow ends of the V-slots. The V-shaped points 15, formed by the meeting inner walls of the slots, which are centered relatively to the wires, serve to wedge or cam the same apart, and thereby separate or open the jaws when the slide-bar is moved in the direction indicated by the arrow in Fig. 4. By reversing the movement of the slide-bar the jaws will be closed, as the wires are again drawn together in the narrow end of the slots.

In the modification illustrated in Figs. 7 to 11 the jaws are shown pivotally mounted in the plate, portions of which latter are struck up as supports for the pin on which the jaws are mounted. The opening and closing of the jaws are effected by means of a V-slotted slide-bar similar to that above described.

As the operation will be generally understood from the foregoing description, I shall describe the same briefly.

When it is desired to remove or insert one or more leaves, the book is opened at the point

where such insertion or removal is to be made and the slide-bar is drawn outward by grasping the projecting thumb-piece. This movement of the slide causes the wedge-points to cam the wires apart and separate the jaws, as indicated in Fig. 2. After the insertion or removal of sheets has been effected the jaws are forced together or closed by pushing in the slide, and the book is ready for use.

Some of the main advantages of my invention are as follows: The device in its preferred form employs only three or four parts of inexpensive construction, and being extremely simple, light, and strong it is particularly well adapted for books of the class described, as it answers all requirements, increases their cost very slightly, and permits such books to be profitably marketed at a comparatively low cost of manufacture.

I do not wish to be understood as limiting myself to the exact construction and arrangement of parts herewith shown and described, as various changes may be made without departing from the spirit and scope of my invention.

Having, therefore, described my invention, I claim—

1. A binding device for loose-leaf books comprising in its construction a slotted plate, a slide-bar having V-shaped openings registering with the slots in the plate, and torsional spring-rods having their extremities bent up and projecting through the slots of the plate and bar to serve as sheet-retaining jaws.

2. A binding device for loose-leaf books, comprising in its construction, a slotted plate flanged longitudinally, a slide-bar mounted between the flanges and having V-shaped slots formed therein registering with the slots of the plate, wires supported beneath the bar and having their extremities bent up to project through the slots of the bar and plate and form cooperating pairs of sheet-retaining jaws.

Signed at New York, N. Y., this 21st day of May, 1903.

GEORGE H. GRESHAM.

Witnesses:

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W. H. PUMPHREY.