

O. R. HEATON.
FASTENER.

APPLICATION FILED JULY 1, 1909.

966,544.

Patented Aug. 9, 1910.

FIG. 1

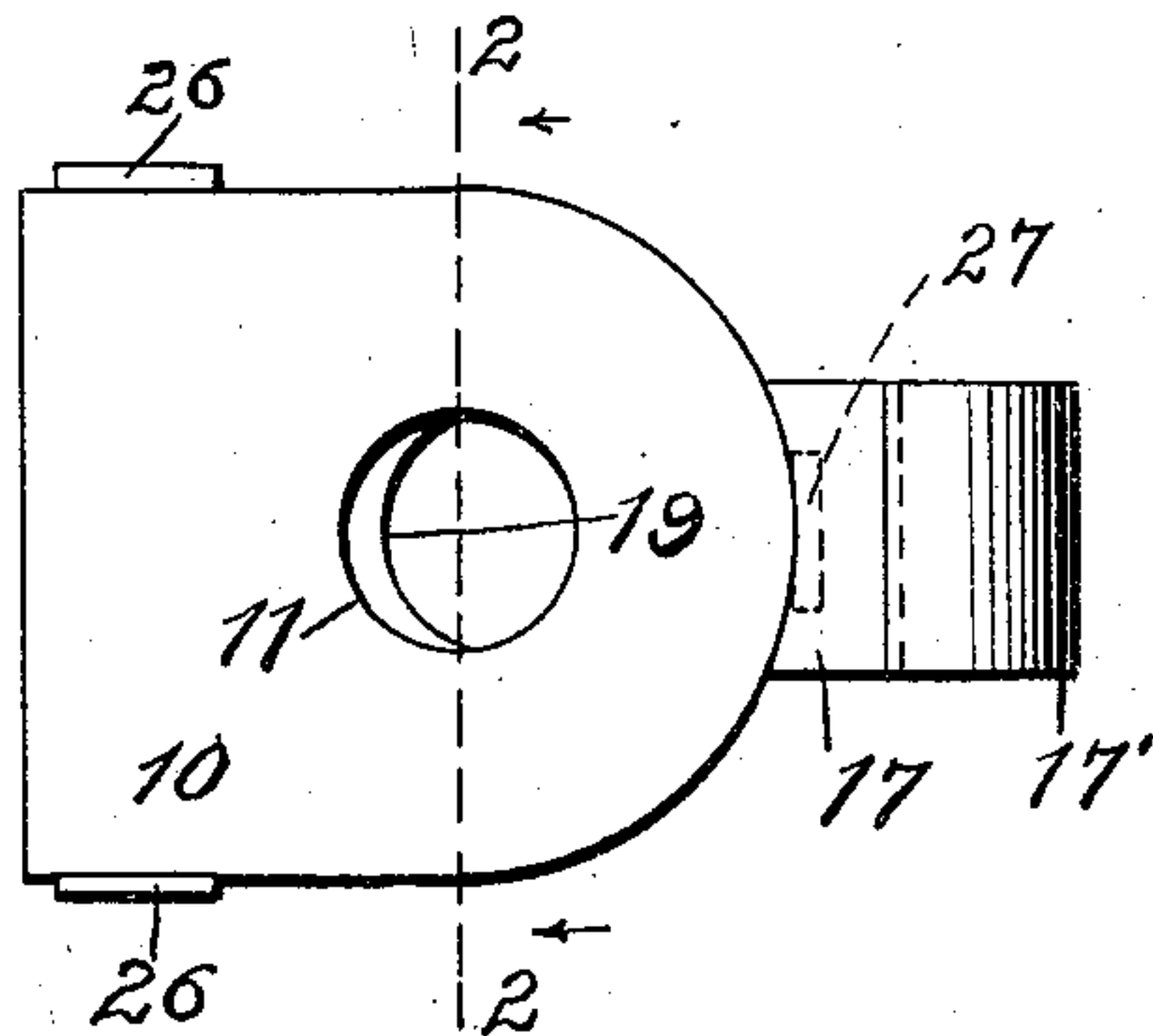


FIG. 2

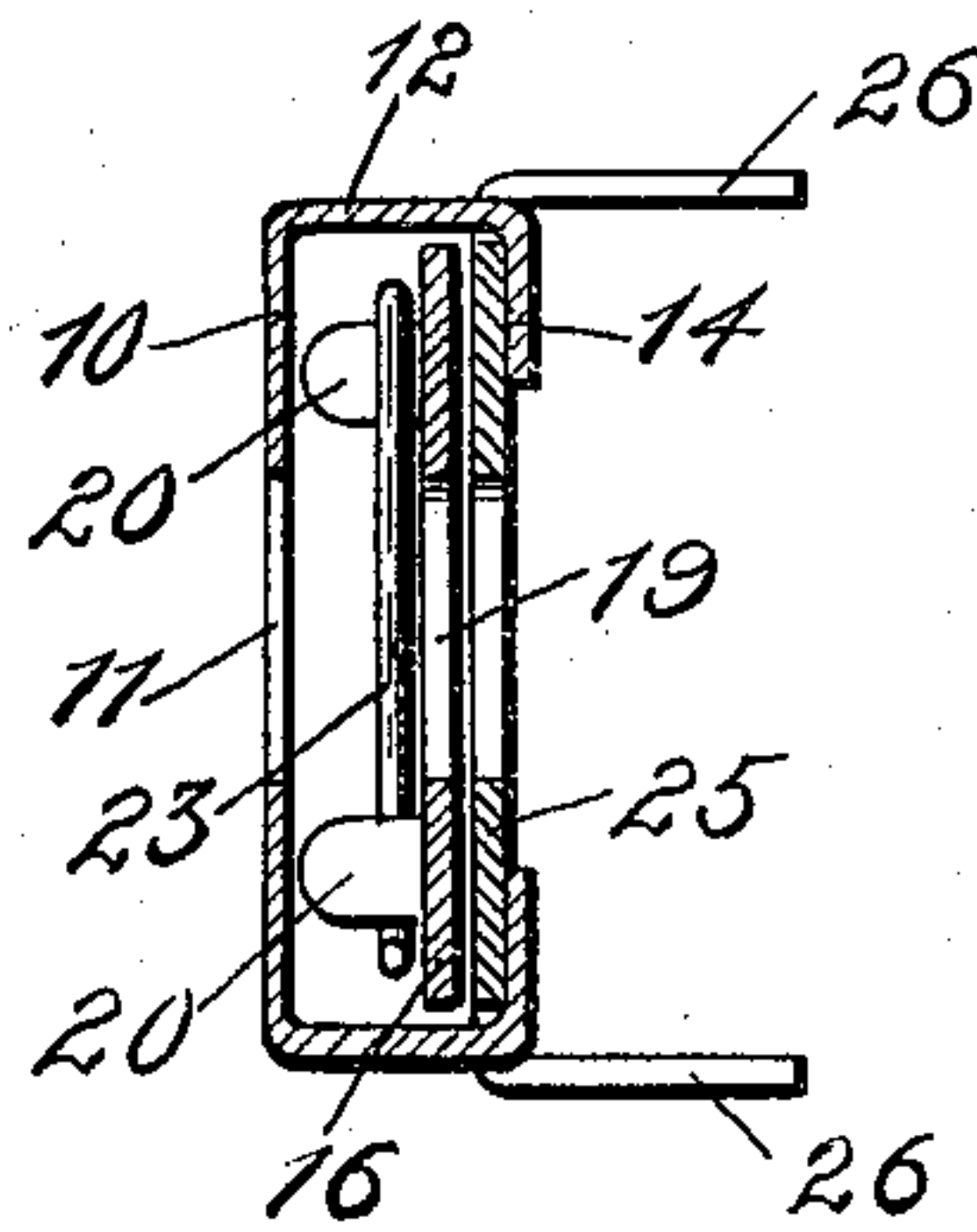


FIG. 3

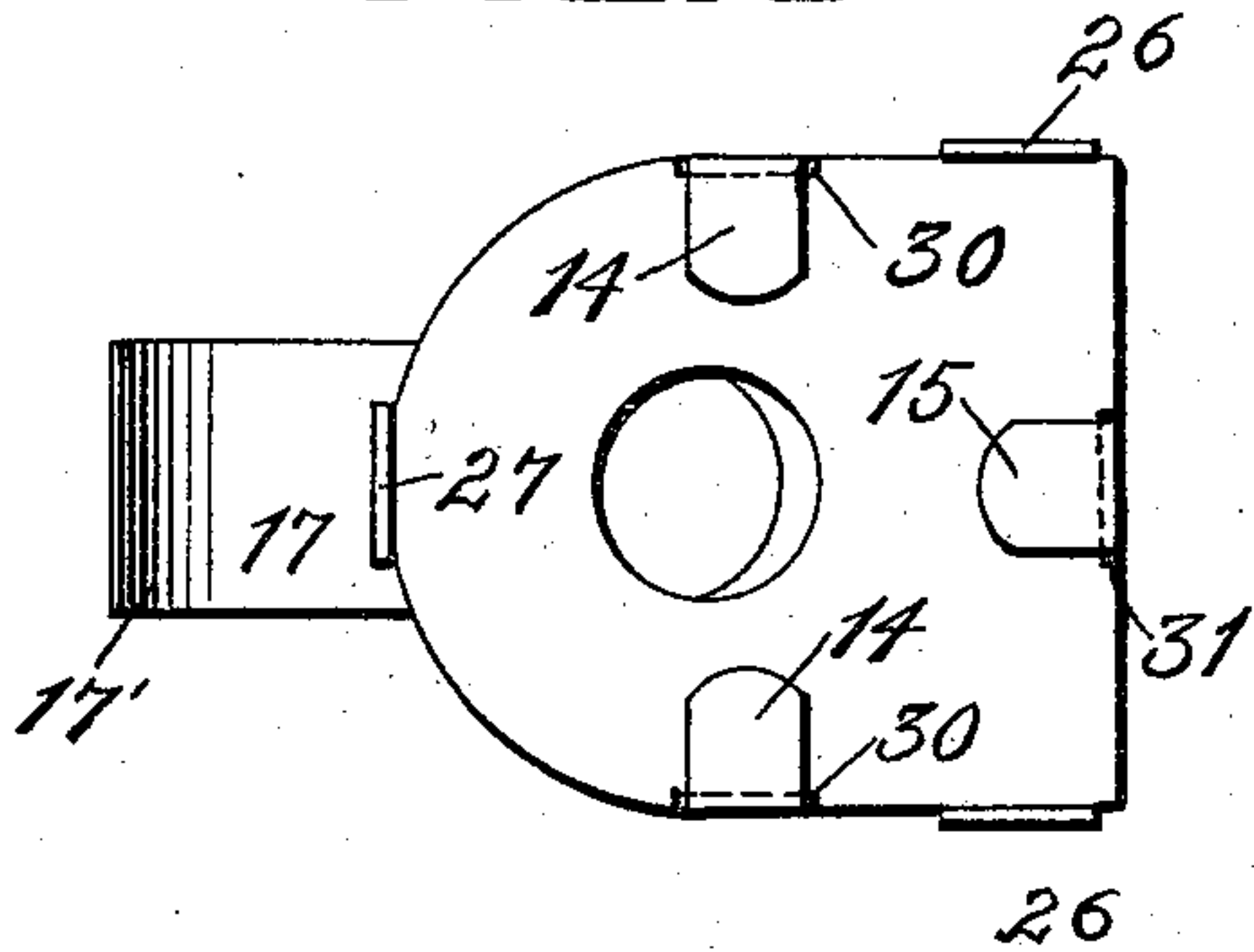


FIG. 4

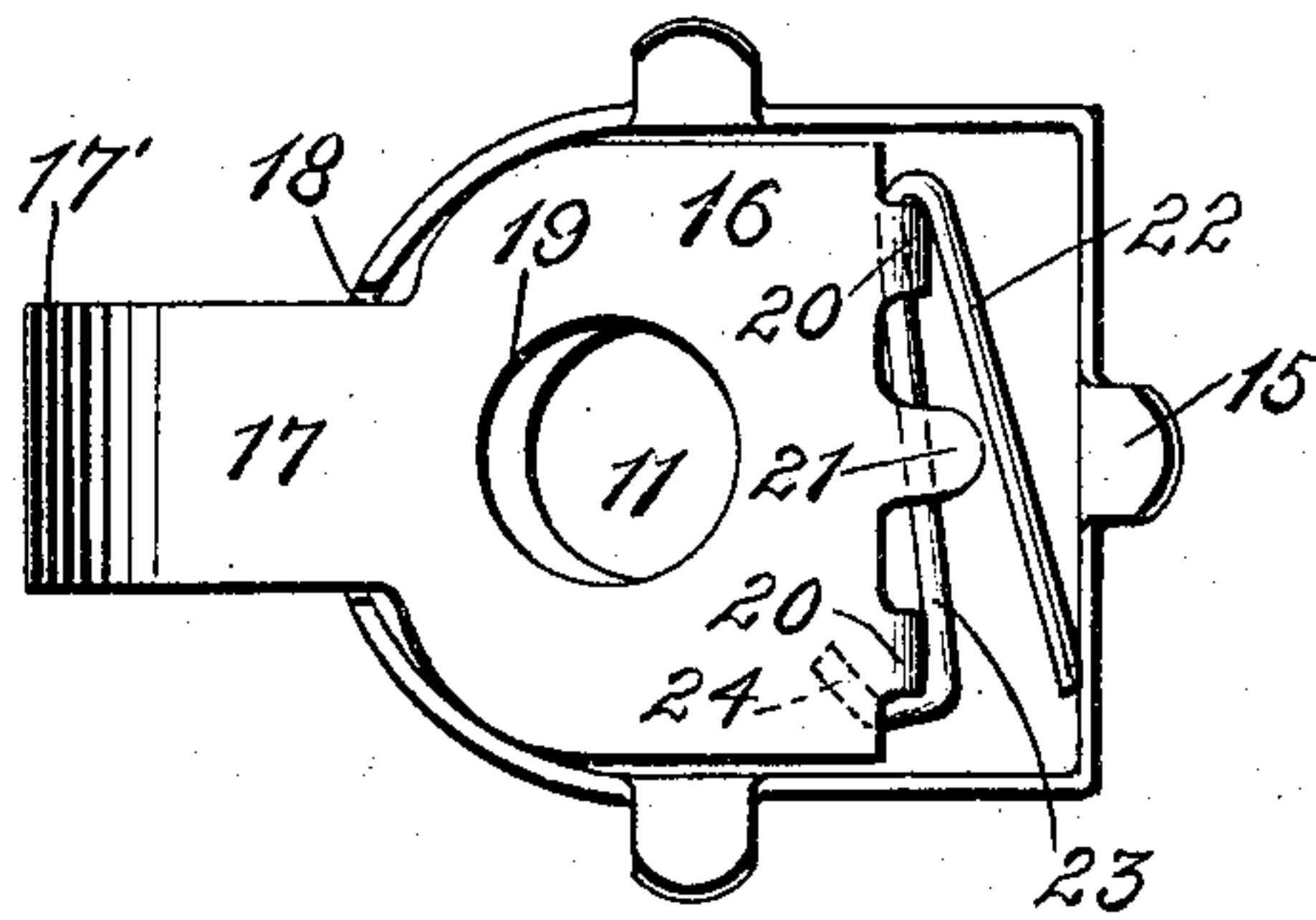


FIG. 5

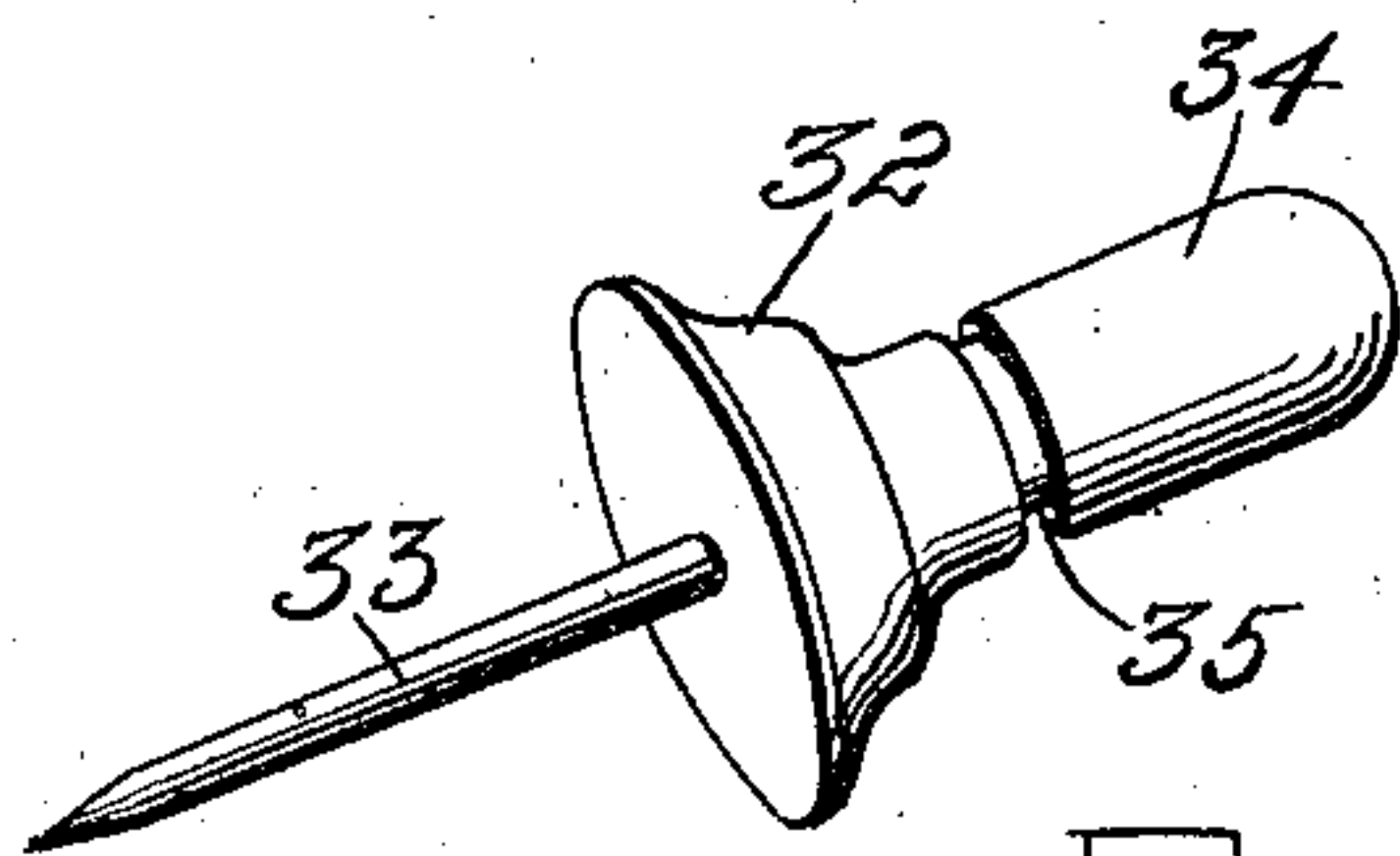


FIG. 6

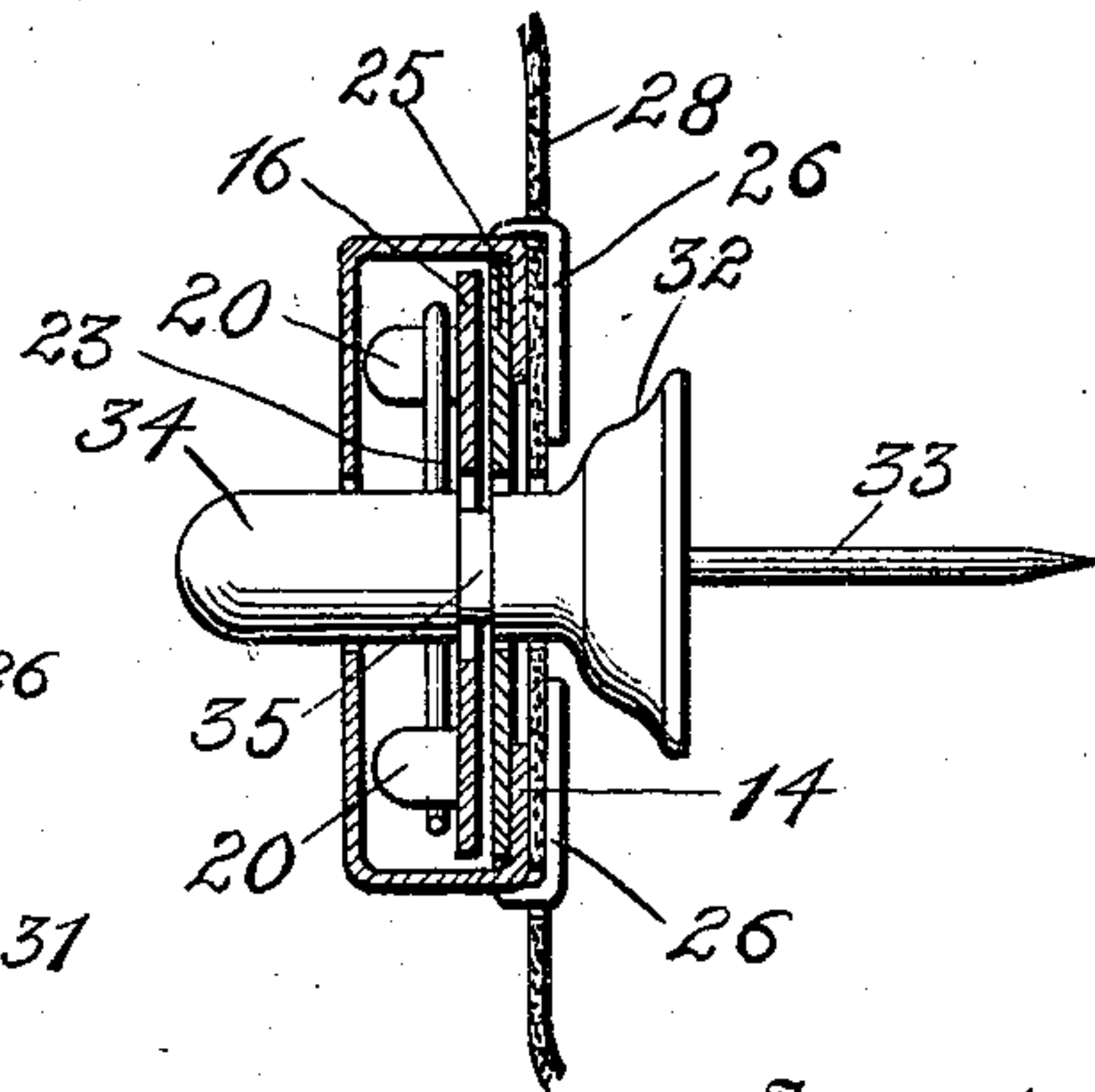
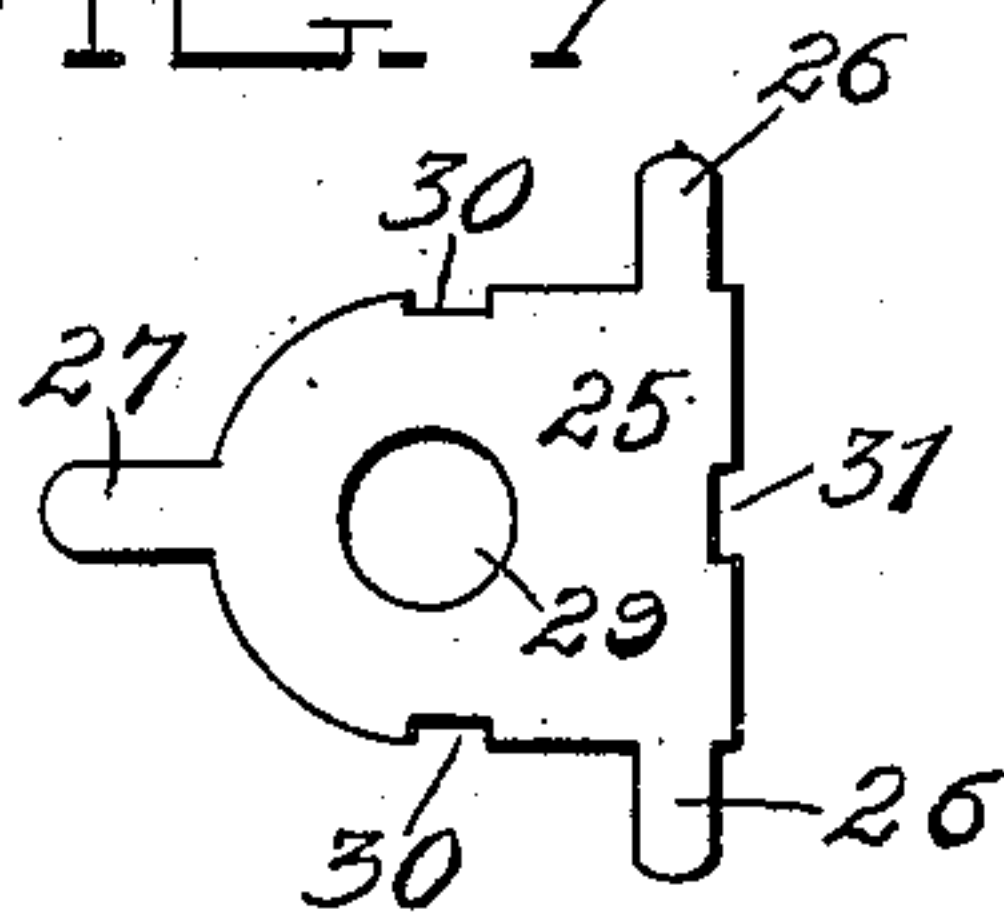


FIG. 7



Witnesses
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UNITED STATES PATENT OFFICE.

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FASTENER.

966,544.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLIVE ROSS HEATON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Fasteners, of which the following is a specification.

This invention relates to certain new and useful improvements in fasteners, and has particular relation to that type of fastener embodying two disconnectible members, one of which members is carried by a part or element different from the part or element carrying the other member, and which members of the fastener when engaged with each other, are adapted to secure the two parts or elements carrying the fastener together.

The invention consists in the novel construction, combination and arrangement of parts hereinafter described and particularly pointed out in the claims. Reference will be had in such description to a practical embodiment of the invention as illustrated in the accompanying drawings, in which similar reference numerals indicate corresponding parts in all of the figures.

Figure 1 is an enlarged view of one of the fastener members. Fig. 2 is a cross-sectional view thereof taken on the line 2—2 of Fig. 1. Fig. 3 is an inverted plan view of the same fastener member shown in Figs. 1 and 2. Fig. 4 is a plan view thereof with the inner face plate removed. Fig. 5 is a detail perspective view of the co-acting fastener member. Fig. 6 is a central sectional view of the fastening members in interlocked engagement with one of the fastening members secured to the part or element which carries the same, and, Fig. 7 is a detail plan view on a smaller scale of the inner face plate of the fastening members shown in detail in Figs. 1 to 4.

In the accompanying illustration, I have shown, and will herein describe an embodiment of the invention particularly adapted for use as a curtain fastener in which particular type of fasteners, there is generally a button or stud carried by one part or element which is engaged with a fastening member carried by a curtain. However, I wish to be clearly understood as not confining my invention to a fastener for such application alone, as the construction embodied is applicable to the above and many

other specific uses without in any wise departing from the spirit of the invention.

In the drawings illustrating the invention and the specific application thereof, 10 designates a case open on one side, and provided in the other side, which latter is the outer face of the case, with an opening 11. This case can be easily and cheaply manufactured from thin sheet metal stamped to provide the rim or flange 12, which latter carries at opposite sides thereof, lugs 14 and, at one end of the case a lug 15. This case receives one of the latch members of the fastener, which member comprises a plate 16 provided at its outer end with an extension 17 constituting a finger grip or handle for moving the latch plate 16 within the case. For convenience in operating, the extension 17 is preferably made of sufficient length so that the free extremity thereof can be turned back upon itself to form the enlarged end or head 17'. The extension 17 of the latch plate 16 extends through and operates in a notch or cut-away portion 18 provided therefor in the flange 12 at the outer end of the case.

The latch plate 16 is provided with an opening 19 which, when the latch plate is moved inwardly in the case, alines with the opening 11 in the outer face of the case, and which opening 19 when the latch plate is in its normal position, is slightly out of alinement with the said opening 11, as is clearly illustrated in Figs. 1, 3 and 4. At its inner end, the latch plate 16 is provided with means for securing in position, the spring employed for normally holding the latch plate in its locking position. The means as herein shown comprises a pair of lugs 20, one near each inner corner of the latch plate, and a lug 21 substantially central of the length of the inner end of the latch plate. The lugs 20 are substantially angular in form, the free ends thereof constituting a support and guide for the inner end of the latch plate. Held by the lugs 20 and lug 21 is a spring which is employed for normally holding the latch plate in latched position. This spring as herein shown is formed from a piece of light spring wire doubled upon itself to form an arm 22 extending across the case at an angle thereto so that its free end abuts against the rear flange of the case, while the other arm 23 of the spring is

passed in the rear of one of the lugs 20, underneath the lug 21, and in front of the other lug 20, with its free end turned under the latch plate 16 as shown at 24, thus securely fastening the spring in position.

The latch plate 16 is held in position in the case by means of a face plate 25 which fits on the free edge of the flange or rim 12, and is provided with prongs or lugs 26, 27 by means of which the fastening member may be secured to a curtain 28 or other part or element, as shown in Fig. 6. This face plate, see Fig. 7, has of course the same outline as the case, being provided with an opening 29 to admit the entering end of the co-acting fastener, and having in its opposite side edges notches 30, and at its inner end a notch 31. These notches 30 and 31 receive respectively the lugs 14 and 15 and when the face plate is placed in position on the case, the lugs 14 and 15 are bent over on to the outer face of the plate 25 so as to secure the latter firmly in position, as clearly illustrated in Fig. 3 of the drawings. The opening 29 in the plate 25 is, it will be understood, in true alinement at all times with the opening 11 in the front plate 10 of the case.

The co-acting fastener member is shown in detail in Fig. 5, and is also shown in Fig. 6, in which view the two fastener members are shown engaged with each other. This member as herein shown is in the form of a button 32 having a prong 33 by means of which the same may be secured to a suitable part or element, and also having an elongated stud 34, adapted to enter the openings 29, 19 and 11, and which is provided at a point which is in registry with the latch plate 16, with a groove or notch 35.

It will be evident, that the opening 19 in the latch plate 16 being normally out of full registry with the openings in the plate 10 and plate 25, that the wall of said opening toward the inner end of the latch plate will engage in the groove or notch 35 of the stud 34 when the latter is inserted into the case, and the two fastening members thereof securely locked together. It is unnecessary, in engaging one fastening member with the other to force the latch plate inwardly by hand, since the stud 34 is rounded on its outer end and will enter the opening in the latch plate so that the latter will be forced inwardly by the stud against the tension of the spring until such time as the groove 35 comes in registry with the latch plate, at which time the spring acts to return the latch plate to its normal position and lock the stud therein. To release the two fasten-

ing members from interlocked engagement however, the latch plate should be forced inwardly by pressing on the head 17' of the extension, so as to allow one fastening member to pass out of engagement with the other without danger of injuring the latch plate which might be caused if it was attempted to pull the case from off the stud without releasing the latch plate from engagement with the stud.

The particular type of spring and manner of securing the same in the fastener I have found very satisfactory and durable in the device, and although I have herein shown the fastening member which includes the case and parts carried thereby, as being used in connection with a type of co-acting fastening member, particularly adapted for the fastening of curtains, yet it is to be observed that the same construction of fastening member which embodies the case and parts carried thereby, can be employed with any co-acting fastening member having a stud adapted to enter the case and to be engaged with the latch plate therein.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a separable fastener, a case, a latch-plate slidable in said case and having an extension projecting through one end wall of the case to form a finger-piece for operating the latch-plate, lugs carried by said latch-plate at the inner end thereof, said lugs extending at right angles to the latch plate and engaging the case to form a guide and support for the latch-plate within the case, and a spring carried by said lugs and having an arm engaging an end wall of the case.

2. A separable fastener comprising a case provided in one of its faces with an opening and having means for securing the case in position, a latch-plate slidably-mounted in the case and having an extension projecting through one end of the case, lugs carried by the inner end of said latch plate and extending at right angles thereto and constituting a guide and support for the latch-plate at its inner end, a two-armed spring carried by the latch-plate having one arm engaged with said lugs and the other arm bearing against the end wall of the case, and a stud member entering said opening in the case and engaged by said latch-plate.

In testimony whereof I affix my signature, in presence of two witnesses.

OLIVE ROSS HEATON.

Witnesses:

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J. W. JEFFERIES.