

No. 716,947.

Patented Dec. 30, 1902.

J. A. SHEPHERD.
LOCK FOR DETACHABLE BINDERS.

(Application filed Apr. 17, 1902.)

(No Model.)

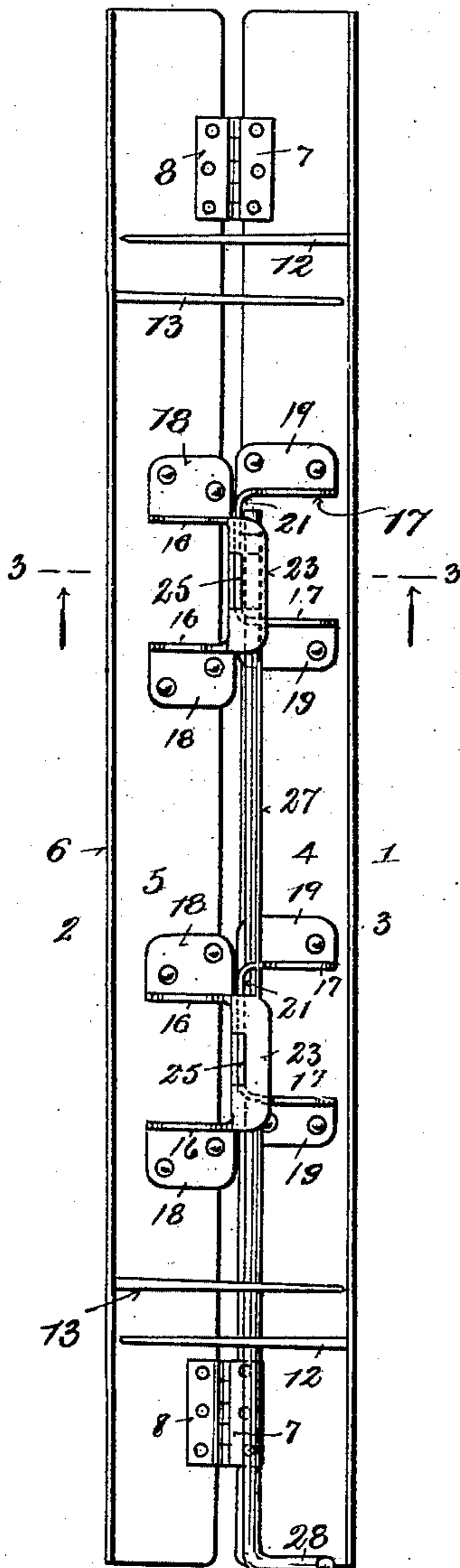


Fig. 1.

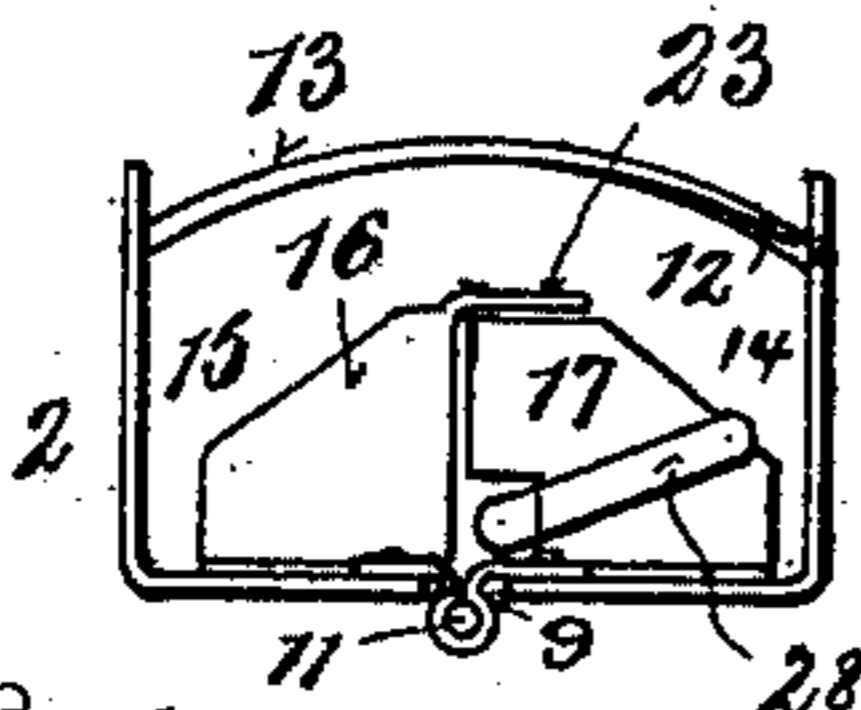


Fig. 2.

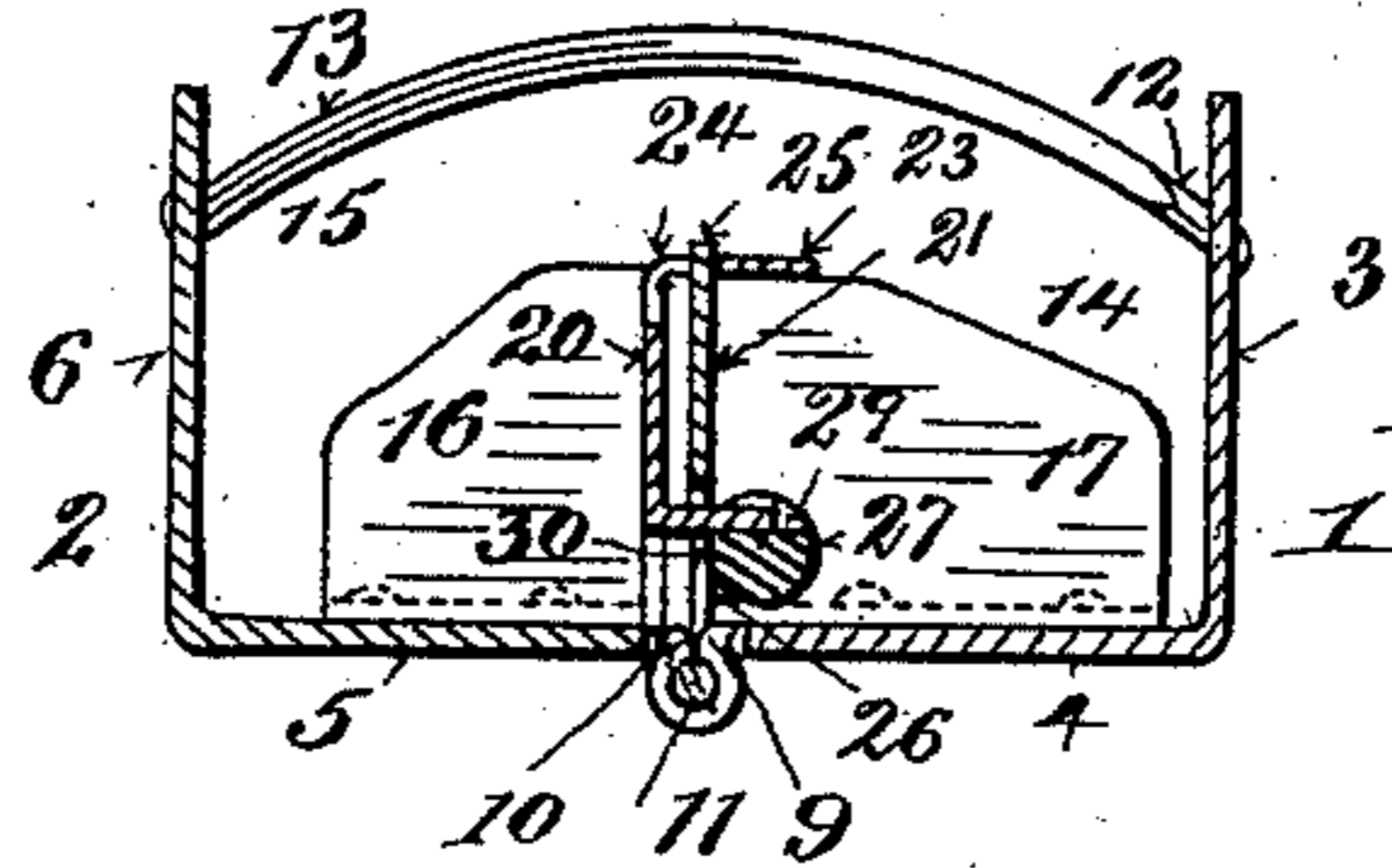


Fig. 3.

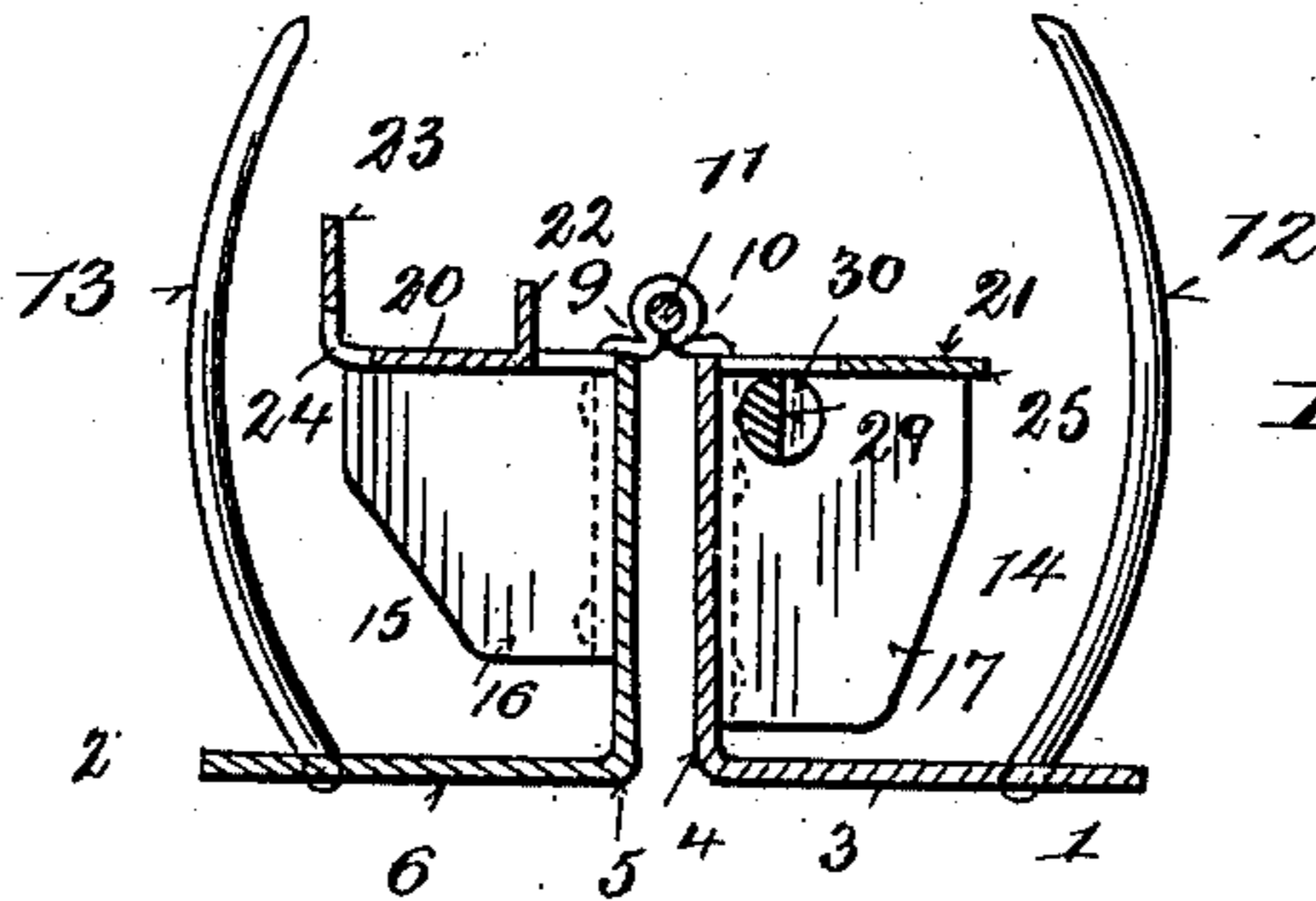


Fig. 4.

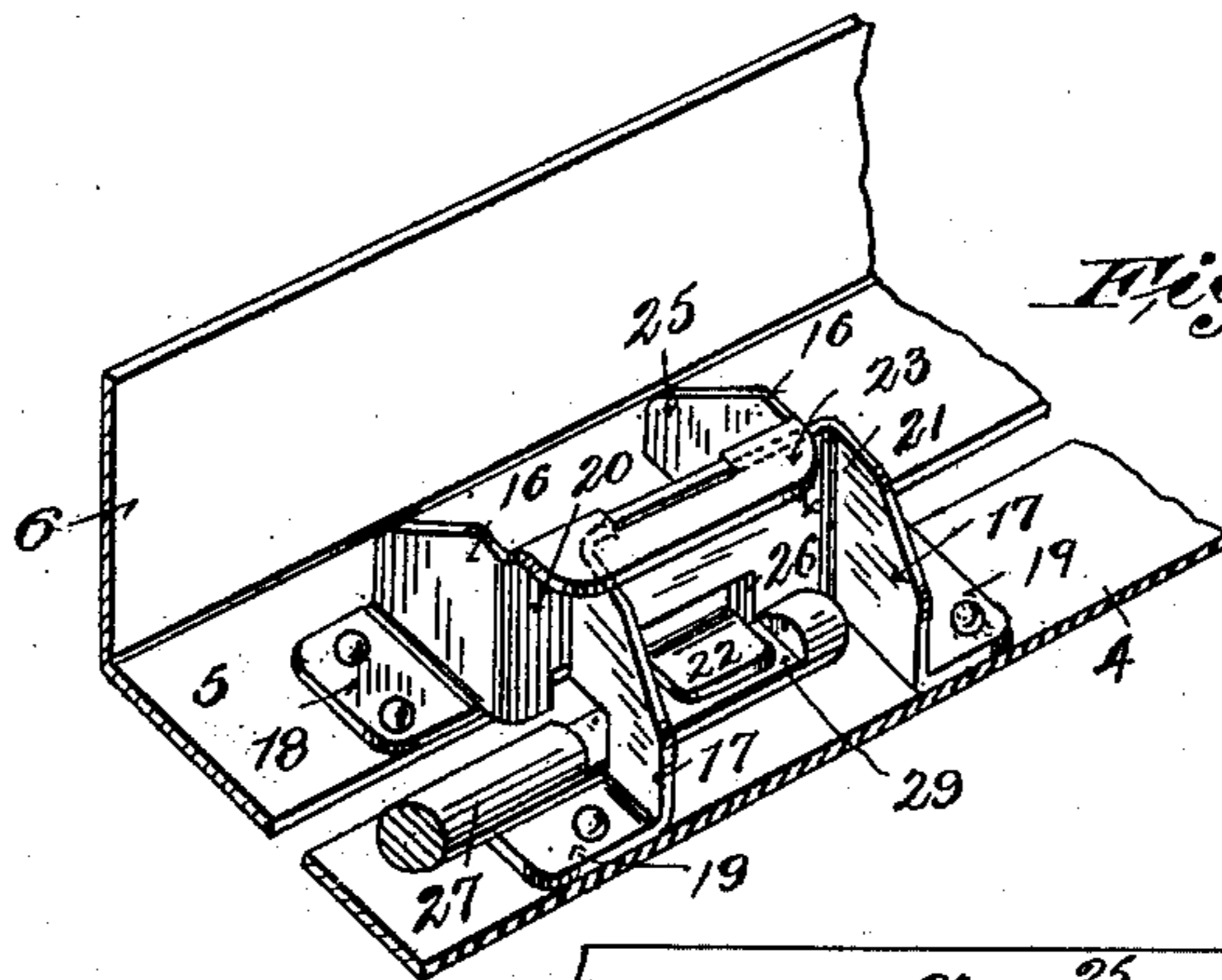


Fig. 5.

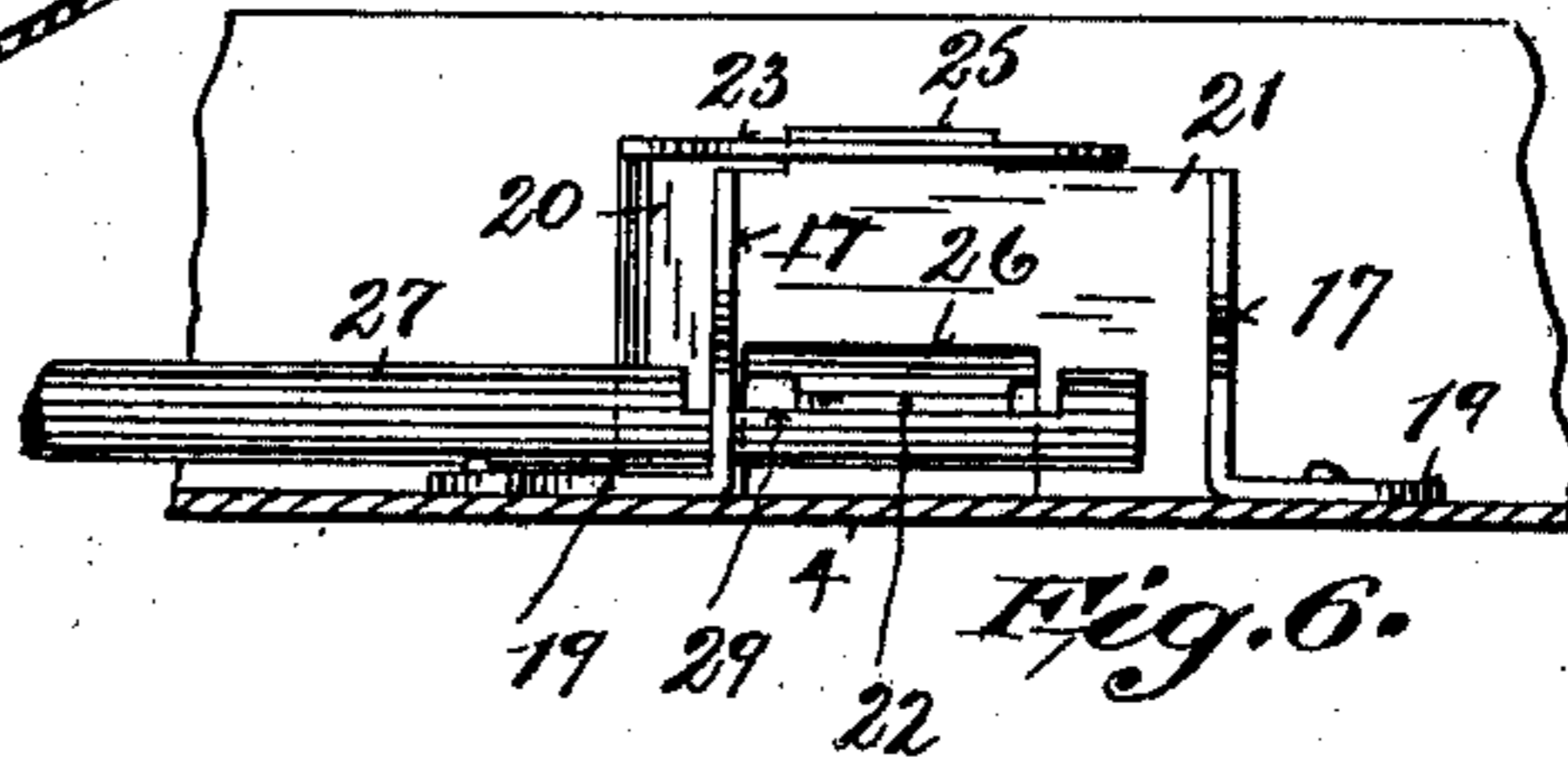


Fig. 6.

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UNITED STATES PATENT OFFICE.

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LOCK FOR DETACHABLE BINDERS.

SPECIFICATION forming part of Letters Patent No. 716,947, dated December 30, 1902.

Application filed April 17, 1902. Serial No. 103,310. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. SHEPHERD, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, county of Kings, and State of New York, (whose post-office address is 106 Pennsylvania avenue, in said city,) have invented certain new and useful Improvements in Locks for Detachable Binders, of which the following is a specification.

My improvements have relation to the locks for hinged backs or like structures adapted to detachably receive account-sheets and the like; and the same consists in the novel construction and combination of parts hereinafter described, and further pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a plan view, and Fig. 2 an end elevation, of a device embodying my improvements. Fig. 3 is an enlarged sectional elevation on the line 3 3, Fig. 1; and Fig. 4 is a like view with the parts opened out. Fig. 5 is a perspective view of one of the locks and a portion of the hinged back-sections. Fig. 6 is a side elevation showing one of the locks.

1 2 in the drawings represent the respective back-sections comprising the webs 3 4 5 6, the webs 4 5 being resilient and hinged together by hinges 7 8, which have offsets, as at 9 10, and a pivot-pin 11. These back-pieces or hinged back-sections are the means for permitting the covers of the book or file to be readily attached thereto, and are resilient and flexible, so as to free the lock-sections, as hereinafter described, and to which curved impaling-fingers 12 13 for detachably receiving the sheets or other articles to be filed are secured, as to the webs 3 6 of the respective sections.

The locking device for detachably securing the hinged backs or sections 1 2 together comprises a lock made in two sections, each section being secured to the flexible and opposing web 4 5 of the back-sections and an unlocking-rod carried by one of the sections. I have shown two locks, as I prefer to use more than one, located along the line of the hinged backs, and these two locks are capable of being simultaneously operated by a single detaching or unlocking rod. It is clear,

however, that but one lock or more than two locks may be employed.

The lock-sections 14 15 comprise uprights 16 17, having flanges 18 19 secured to the webs 4 5 of the back-section, front cross pieces or bars 20 21, a lower tongue 22 extending from the cross-bar 20, and a lip 23 extending from the cross-bar 20 at the top. An aperture or slot 24 is formed at the angle of the cross-bar 20 and lip 23. The other back-section 14 is like the section previously described, except that the top of the front cross-bar 21 has an outwardly-extending lug 25 and the lower portion of the front piece is cut or recessed at 26 to permit the lower tongue 22 of the other section to be protruded therethrough when the sections are brought together, the lug 25 being in line with the under surface of the lip 23 and with the recess 24.

At 27 is a rod hinged to one of the sections, specifically to the section 1, it passing loosely through the uprights 17 and having an operating-handle 28, adapted to lie flat on the web 4 of the section 1 and supported on that section by the uprights 17 or otherwise, if desired. This rod extends across and in front of the aperture 26 in the bar 21 of the section 14, and at the point where the rod extends across the opening it (the rod) is cut away and flattened, as at 29, so that the flattened portion will lie or extend directly across the said opening. This flattened portion of the rod is also in line with the lower tongue 22 of the section 15.

By bringing the back-sections 1 2 together on their hinges the lug 25 on the top of the front bar 21 of the section 14 bears against the bottom of the lip 23, raises it against the stress of the webs 4 5, and a continuation of this movement causes the lug to enter into the recess 24, over which lug the lip 23 is snapped by the resiliency or coming together of the webs 4 5, which have been thus separated. At the same time the tongue 22 has entered into the aperture 26 in the front piece of the opposing section and has been projected against the flat portion 29 of the rod 27. The lower tongue 22 then bears on the lower edge or angle of the flattened portion of the rod and brings said flattened portion parallel with the said tongue, the operating-handle then being raised, as indicated in Fig. 2.

To unlock or free the sections 14 15 from each other and to permit the back-sections to be vibrated, as in Fig. 4, the handle 28 is depressed, which rotates the rod 27, causes the angular portion 30 of the rod to bear against the lower tongue 22, the resiliency of the back-sections allowing the webs 4 and 5 to separate, and raises the lip 23, so as to free the lug, thus freeing the lock-sections, which, owing to the resiliency of the back-sections, are thrown violently apart, completely unlocking the hinged sections. The back-sections are separated as the rod is vibrated by the rounded surface of the rod being presented across the openings in the front plate 21 of the section 14, and as the tongue 22 of the other section is moved toward the same to lock the hinged backs together it rides over the curved surface and depresses it, so as to raise the operating-handle and present the flattened surface of the rod directly underneath the lower tongue.

Having described my invention, I claim—

1. The combination with the resilient back-sections hinged together, of a lock therefor comprising separate parts attached to the separate back-sections, means on one lock part for engaging the other lock part, and further means for stressing the back-sections to free the back parts from each other.

2. The combination with the spring back-

sections, of the lock comprising two sections, one section having a recessed lip and a tongue, the other section a lug, and a rod hinged to one of the sections and adapted to engage the tongue to free the lip from the lug.

3. The combination with the hinged and resilient back-sections, of a locking device comprising a rod having a flattened portion pivoted to one of the backs, a frame supporting a lug secured to the same back, and a frame secured to the other back carrying an apertured lip engaging the lug, and a tongue adapted to engage the flattened portion of the rod.

4. The combination with the hinged and resilient backs, the pivoted rod having a flattened portion, a frame having a cross-bar secured to the back, an aperture in the cross-bar in front of the flattened portion of the rod, a lug extending above the cross-bar; another frame secured to the opposing back and having a cross-bar, a tongue projecting from the cross-bar, a lip projecting from the upper portion of the cross-bar, and an aperture formed in the cross-bar extending below the lip and in line with the lug on the other section.

Signed in the city, county, and State of New York this 12th day of April, 1902.

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