

No. 772,585.

PATENTED OCT. 18, 1904.

T. F. SMITHSON.
BELT COUPLING.

APPLICATION FILED JULY 1, 1904.

NO MODEL.

Fig. 1.

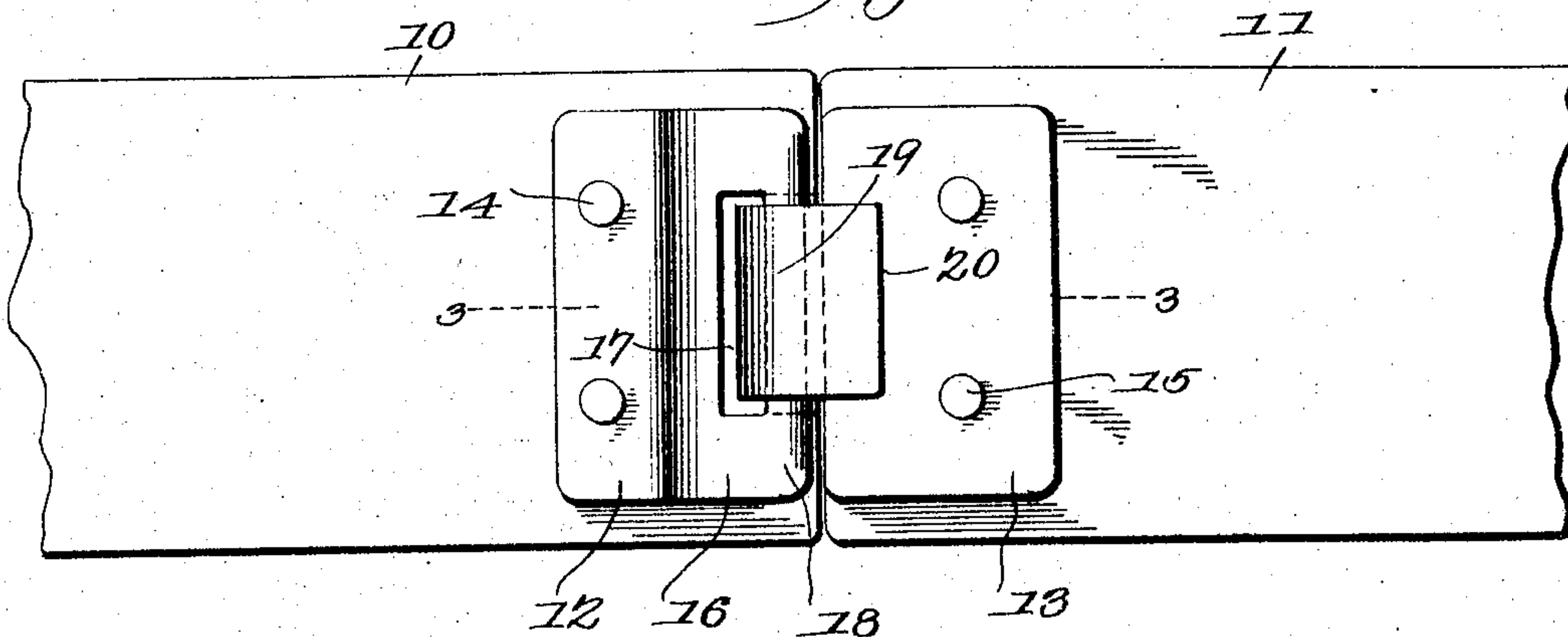


Fig. 2.

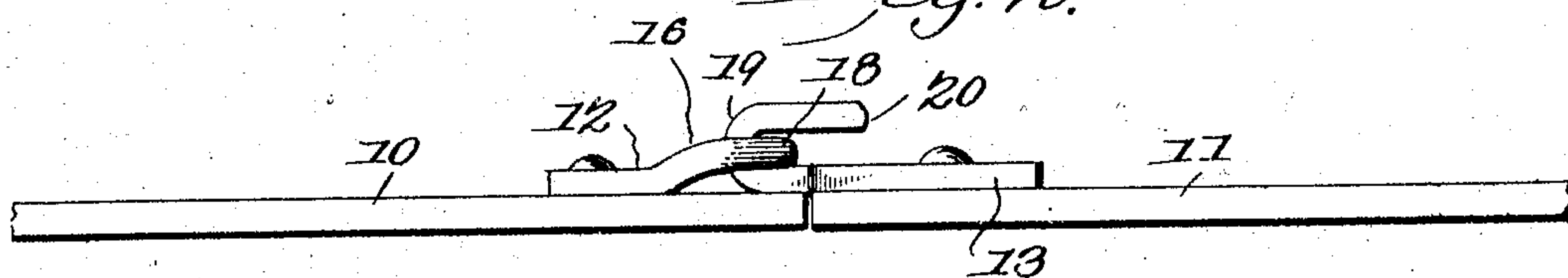


Fig. 3.

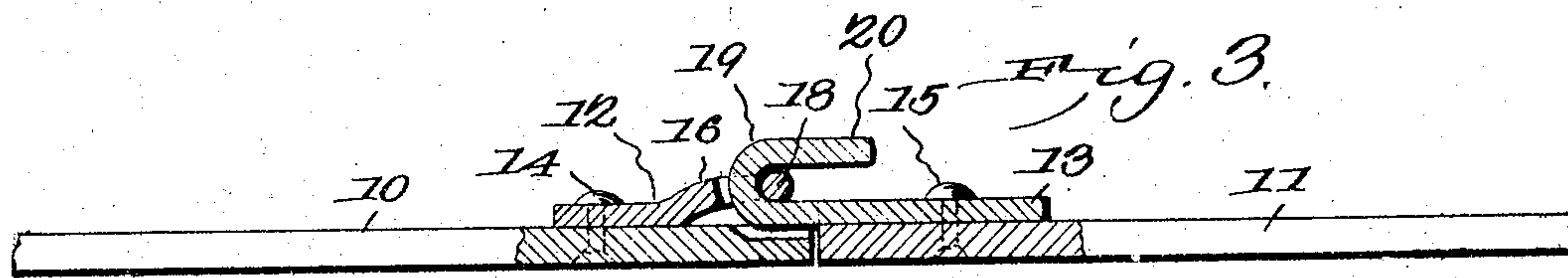


Fig. 4.

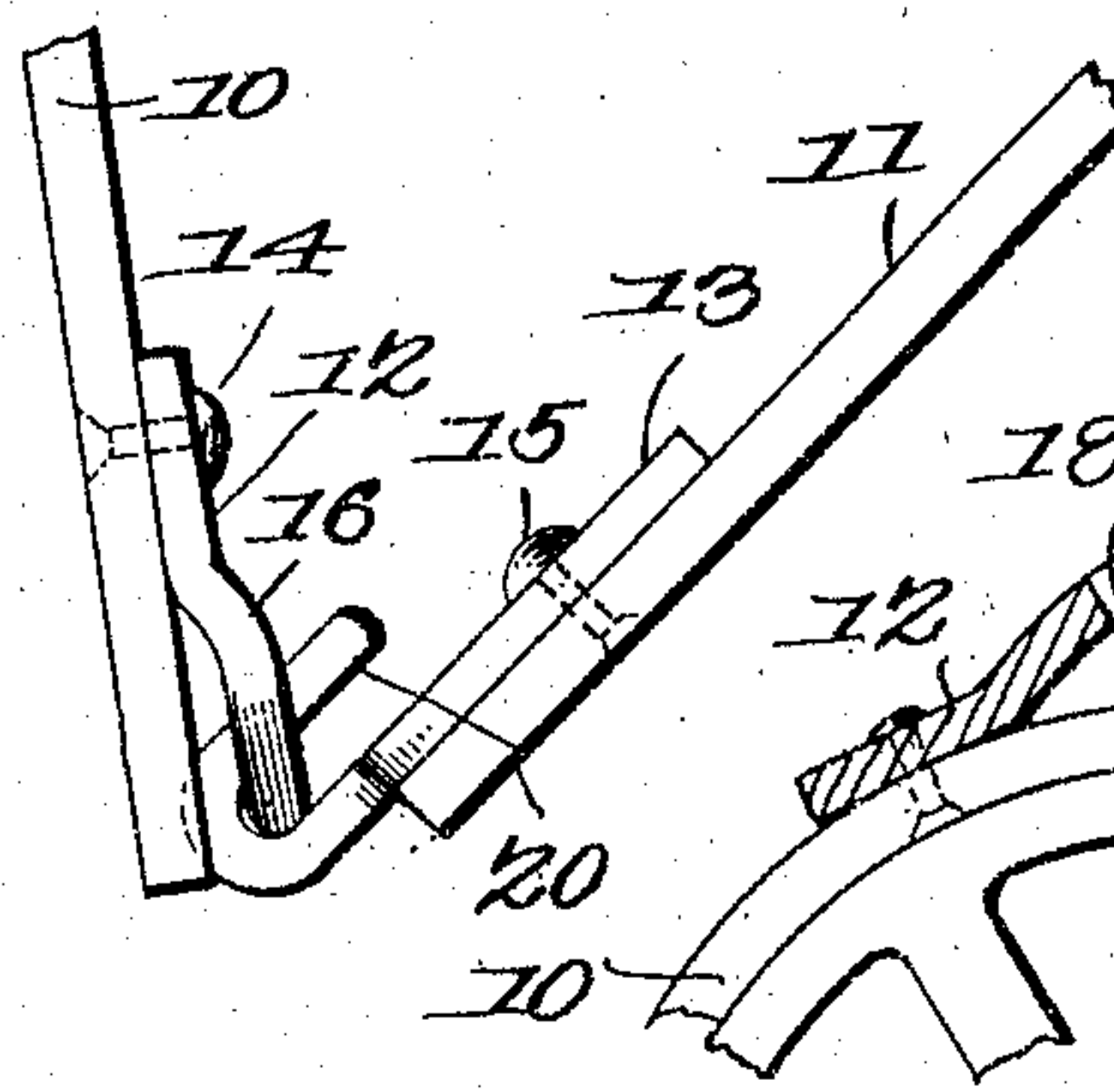
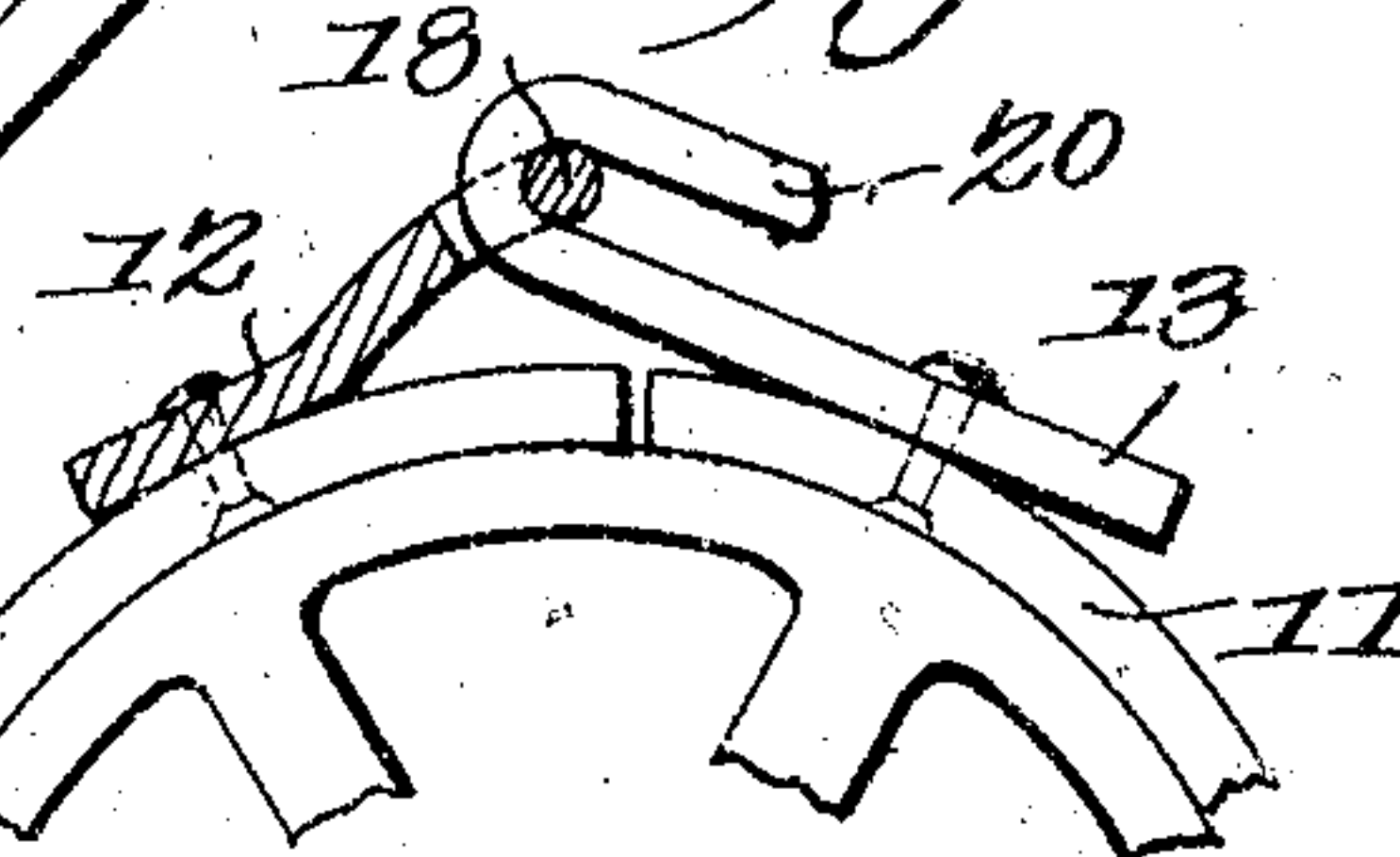


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS F. SMITHSON, OF WHITEFORD, MARYLAND.

BELT-COUPLING.

SPECIFICATION forming part of Letters Patent No. 772,585, dated October 18, 1904.

Application filed July 1, 1904. Serial No. 214,968. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. SMITHSON, a citizen of the United States, residing at Whiteford, in the county of Harford and State of Maryland, have invented a new and useful Belt-Coupling, of which the following is a specification.

This invention relates to devices for coupling belts and for similar purposes, and has for its object to simplify and improve the construction and produce a device of this character whereby the ends of a belt or two portions of the same or different belts may be so united that the flexibility will not be decreased or so that the belt will run around as small a pulley with the coupling connected therein as without it.

Another object of the invention is to produce a device of this character which can be uncoupled only by placing the two portions of the coupling in an unusual position or in a position which it could not assume when in use, and thereby effectually preventing accidental displacement when in action.

Another object of the invention is to provide a device of this character which may be run in either direction without danger of uncoupling.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a belt-coupling constructed in accordance with the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal section on the line 3 3 of Fig. 1. Fig. 4 is a side view with the parts disposed in position for uncoupling. Fig. 5 is a side view, partly in section, illustrating the action when running around a comparatively small pulley.

The improved device may be employed for coupling any and all sizes of belts for operating machinery of various kinds and is applicable to belts manufactured from leather, rubber, or rubber compounds and the various combination-belts manufactured and may also be employed upon various parts of har-

ness and for similar purposes, but for the purpose of illustration is shown applied to uniting the adjacent ends of the two belt-sections 10 11 of ordinary construction.

The improved device comprises two plates 12 13, secured, as by rivets 14 15, respectively, to the belt-sections. The plate member 12 is bent upward at its outer end from the face of the belt-section to which it is attached, as at 16, and provided with an elongated transverse aperture 17, whereby a bar member 18 is formed spaced from the outer face of the belt and likewise projecting in advance of the end of the same, as shown. The other plate, 13, is provided with a hook member 19 for entering the aperture 17 and engaging the bar member 18, the extremity 20 of the hook extending for a distance beyond the member 18 and parallel to the plate 13, as shown. The bill of the hook 19 is of sufficient length to prevent displacement from the member 18 when moving in straight lines relative to the member 12, so that it can by no possibility become accidentally displaced and can therefore be uncoupled only by placing the parts in the very unusual position shown in Fig. 4—a position they could never assume while in use. Consequently there could be no accidental displacement while the device is in operation.

The portion of the belt beneath the bar 18 and aperture 17 is cut away for a distance, as at 21, to provide for the free action of the "heel" of the hook, as will be obvious. Another feature to be noted is that the parts are effectually held from lateral movement and the belt will rotate as freely around a small pulley where the coupling is located as the portions where no coupling occurs. In other words, the presence of the coupling does not lessen the flexibility of the belt at the points where it is located.

With the improved coupling herein described the belt can be run in either direction with equal facility, as the "pull" is the same from both directions. It will be noted by this arrangement that the ends of the belt approach very closely, so that no gap occurs to cause loss of grip upon the pulleys, which is also a great advantage. In wide belts two

or more of the devices may be employed; but in smaller belts one pair of plates will be sufficient, as will be obvious.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a belt having its ends approximately abutting, the outer surface of one end of the belt being recessed, of a coupling member having one end secured to the recessed end of the belt and its opposite end being provided with an elongated opening, the latter end of the member being extended a slight distance above the outer surface of

the belt and lying wholly within the lines of said belt, and a second coupling member secured to the opposite portion of the belt and projecting beyond the end thereof, said second member terminating in an elongated bill that fits within the opening of the first member, the bill playing in the recessed portion of the belt.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS F. SMITHSON.

Witnesses:

JOHN LLOYD,

GEORGE E. ALLISON.