

W. H. FROMHART.
HINGE.
APPLICATION FILED OCT. 5, 1908

907,768.

Patented Dec. 29, 1908.

Fig. 1.

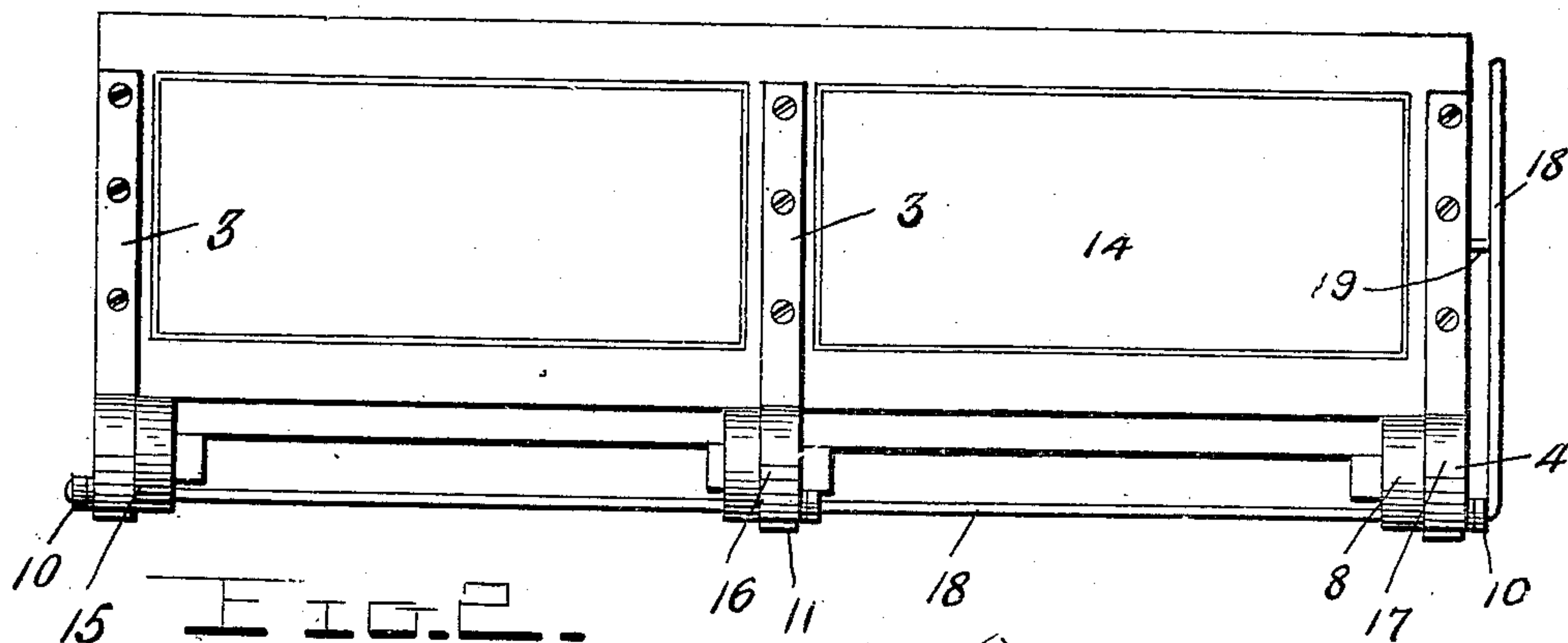


Fig. 2.

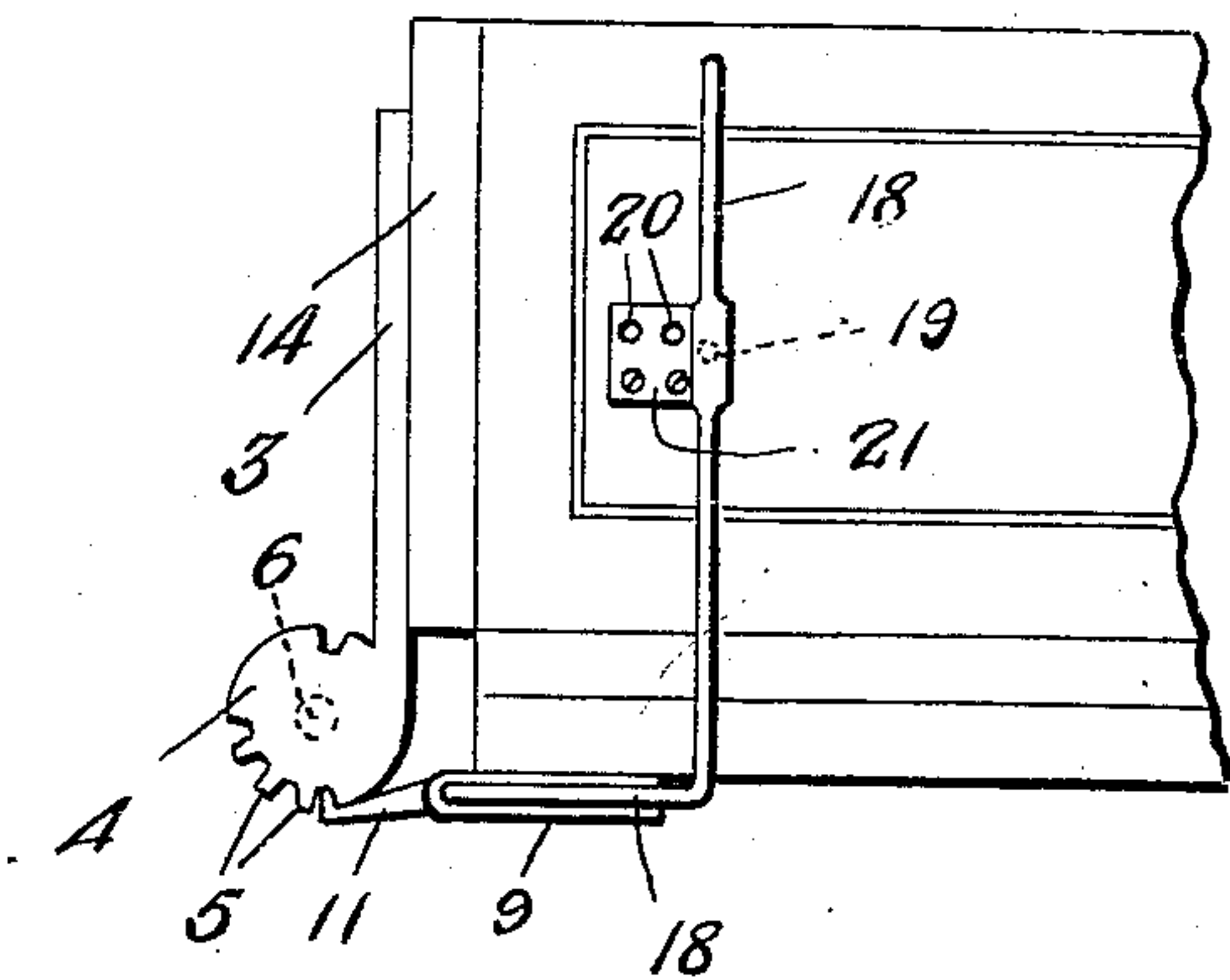


Fig. 3.

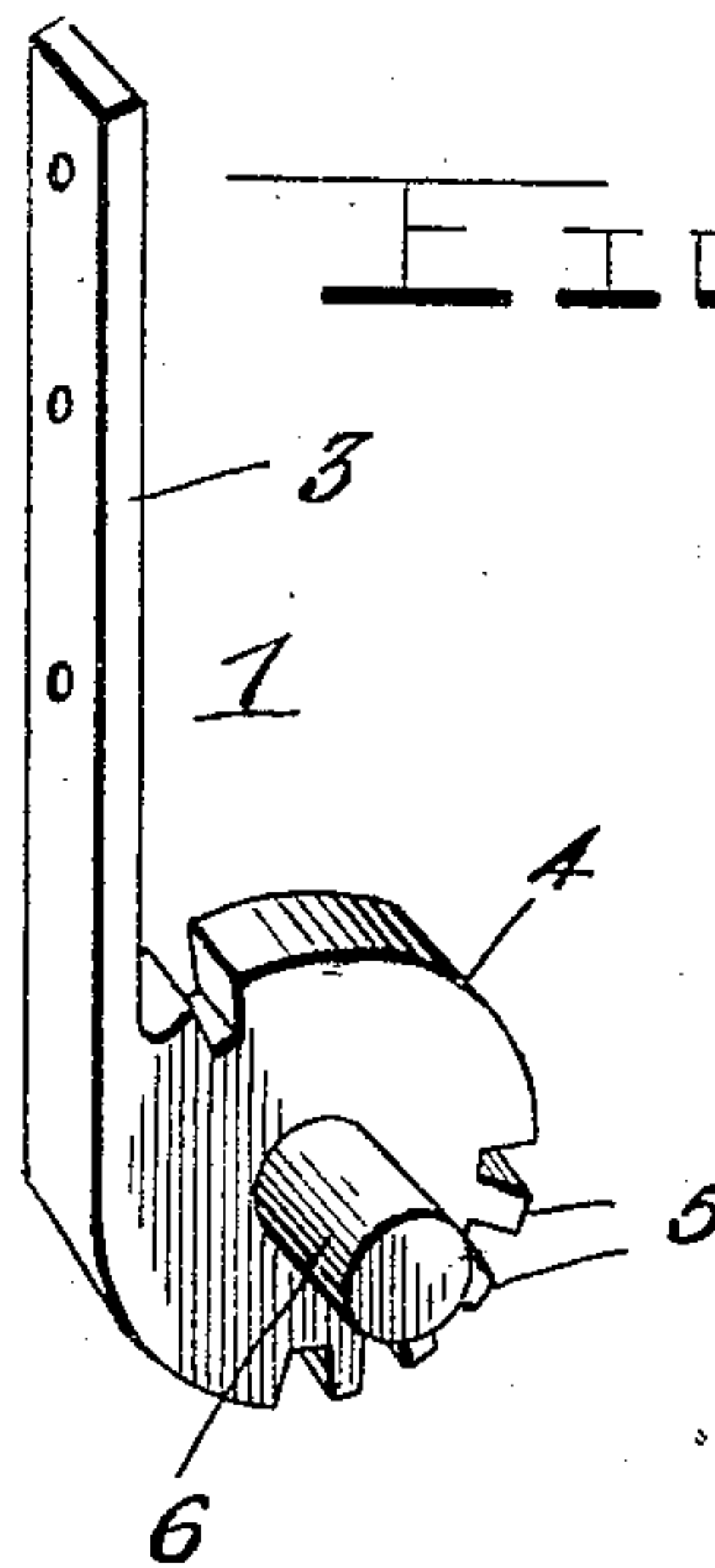


Fig. 4.

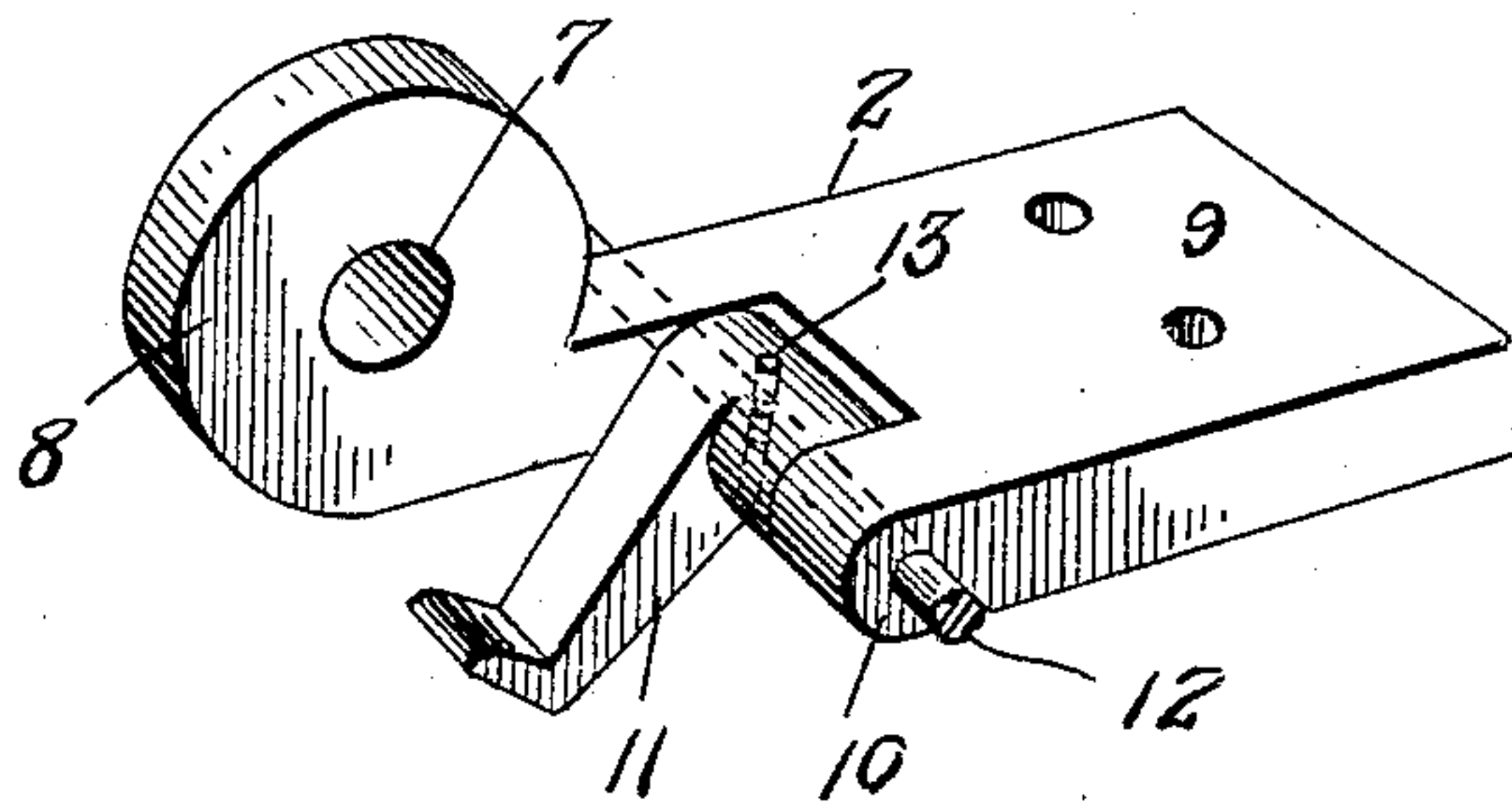
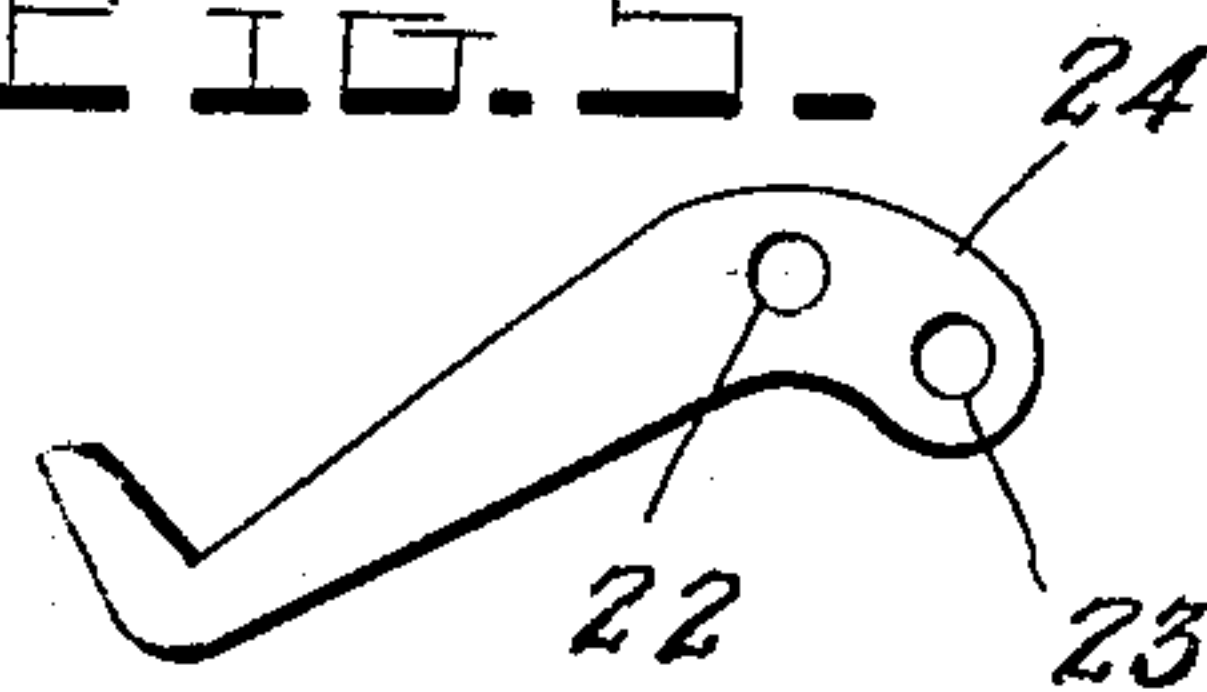


Fig. 5.



Witnesses

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HINGE.

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To all whom it may concern:

Be it known that I, WILLIAM H. FROMHART, a citizen of the United States, residing at Golden, in the county of Jefferson and State of Colorado, have invented certain new and useful Improvements in Hinges; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hinges and more especially to hinges utilized for the support and pivoting of wagon end gates.

The object of the invention is to provide a device of this character which may be locked in any suitable position to support the end gate in closed or any adjusted position to accommodate the load carried within the wagon.

While the hinge as herein shown is applied to a wagon end gate, it will be clearly understood that it also may be utilized for other purposes with equal attendant advantages.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is an end elevation of a wagon body showing the hinge applied thereto; Fig. 2 is a fragmentary side elevation thereof; Fig. 3 is a detailed perspective view of the ratchet member of the hinge; Fig. 4 is a detailed perspective view of the pawl member of the hinge, and, Fig. 5 is a modification of the pawl.

As all of the hinges used are similar in every respect, except in the possible reversal of parts which does not materially change the invention, I shall only describe one of the hinges and its operation in connection with a wagon body. Those skilled in the art will be thereby enabled to apply the same and to make any changes in its use such as the application to doors, etc., as will be advantageous.

The hinge comprises two separate members 1 and 2, the former being designated hereinafter as the ratchet member and the latter being designated as the pawl member. The ratchet member comprises an elongated arm 3 upon which is formed the enlarged circular end 4 having the rack teeth 5 formed thereon. Centrally of the end 4 I provide the projecting pivot pin 6 which engages the aperture 7 centrally formed in the enlarged

head 8 of the member 2. The head 8 is connected to a short, flat and broad arm 9 which has arranged parallel with the head 8 a short ear or lug 10 and between the ear and the head 8 is mounted the pawl 11 upon the pin or rod 12. This pawl is keyed to the rod 12 by a suitable key 13 so that when the rod is rotated as will be hereinafter described, the pawl will be operated to engage one of the openings between the teeth 5 so as to lock the ratchet part 1 to which the gate 14 is attached.

In applying the device to an end gate of a wagon three of these hinges are shown as at 15, 16 and 17, and the pintle rod 12 is shown extended from one side of the wagon body to the other and is keyed to all of the pawls in the manner shown in Fig. 4. The outer end of the rod is provided with a suitable manipulating lever 18, which is provided with an inwardly extending pin 19, adapted to engage holes 20 formed in the plate 21 carried upon the side of the body so as to lock the pawl in its engaged position. This same arrangement may be followed strictly in applying the device to drop and dump bottoms of wagon bodies, and the lever 18 can be arranged upon the front end of the wagon so that the operator can dump the contents thereof without alighting from his seat.

In Fig. 5 I have shown a pawl which may be used instead of the one shown in Figs. 1—4. In this form, the pivoting rod passes through the aperture 22 and the lever is connected through the aperture 23 formed in the ear 24. In this instance, the lever would be pivoted to some part of the wagon body or frame and be held in normal locking position by any suitable means.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claim.

I claim as my invention:—

A hinge comprising a pair of leaves each having an enlarged circular head formed thereon, a central pivot pin projecting from one of the heads and adapted to engage a central aperture formed in the other of said

heads, a lug projecting from the leaf of one member parallel with the head thereon, a pawl pivoted between the head and said lug and adapted to swing parallel with the head, 5 and a series of rack teeth carried by the head on the other member adapted to be engaged by the pawl to lock said members in adjusted position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 10

WILLIAM H. FROMHART.

Witnesses:

JAY J. BRYAN,
WILLIAM P. BUNDIN.