

No. 877,477.

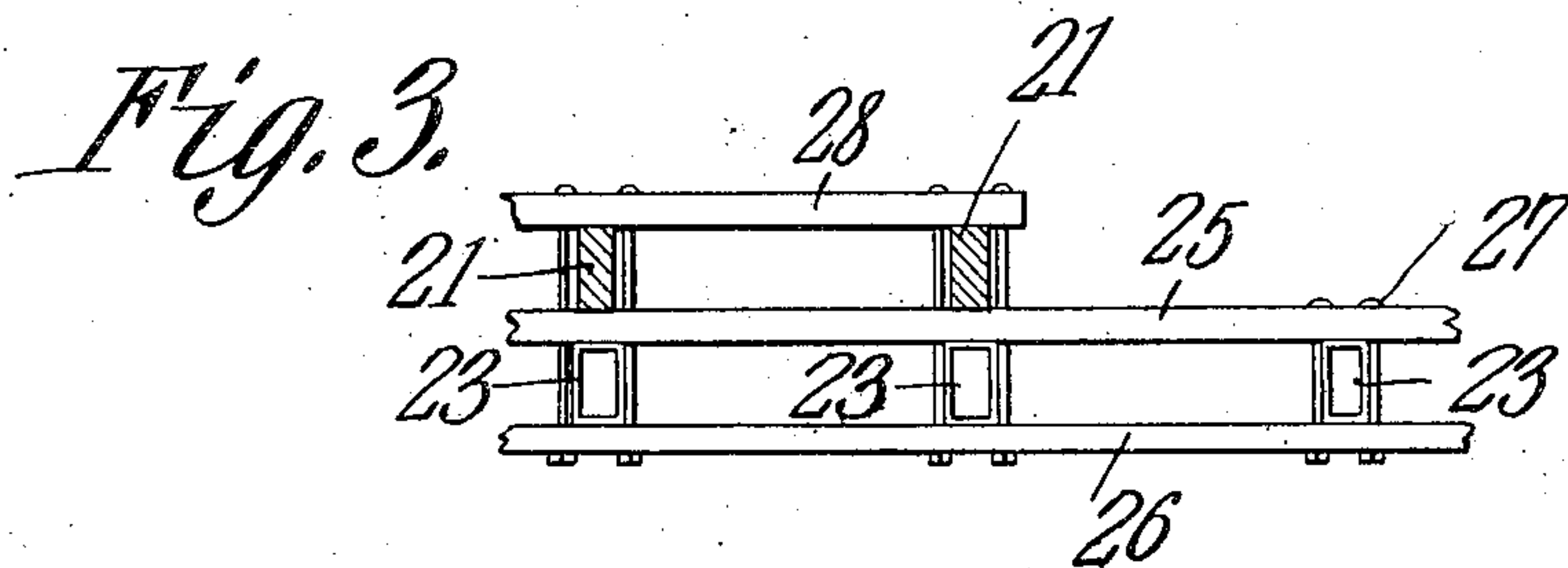
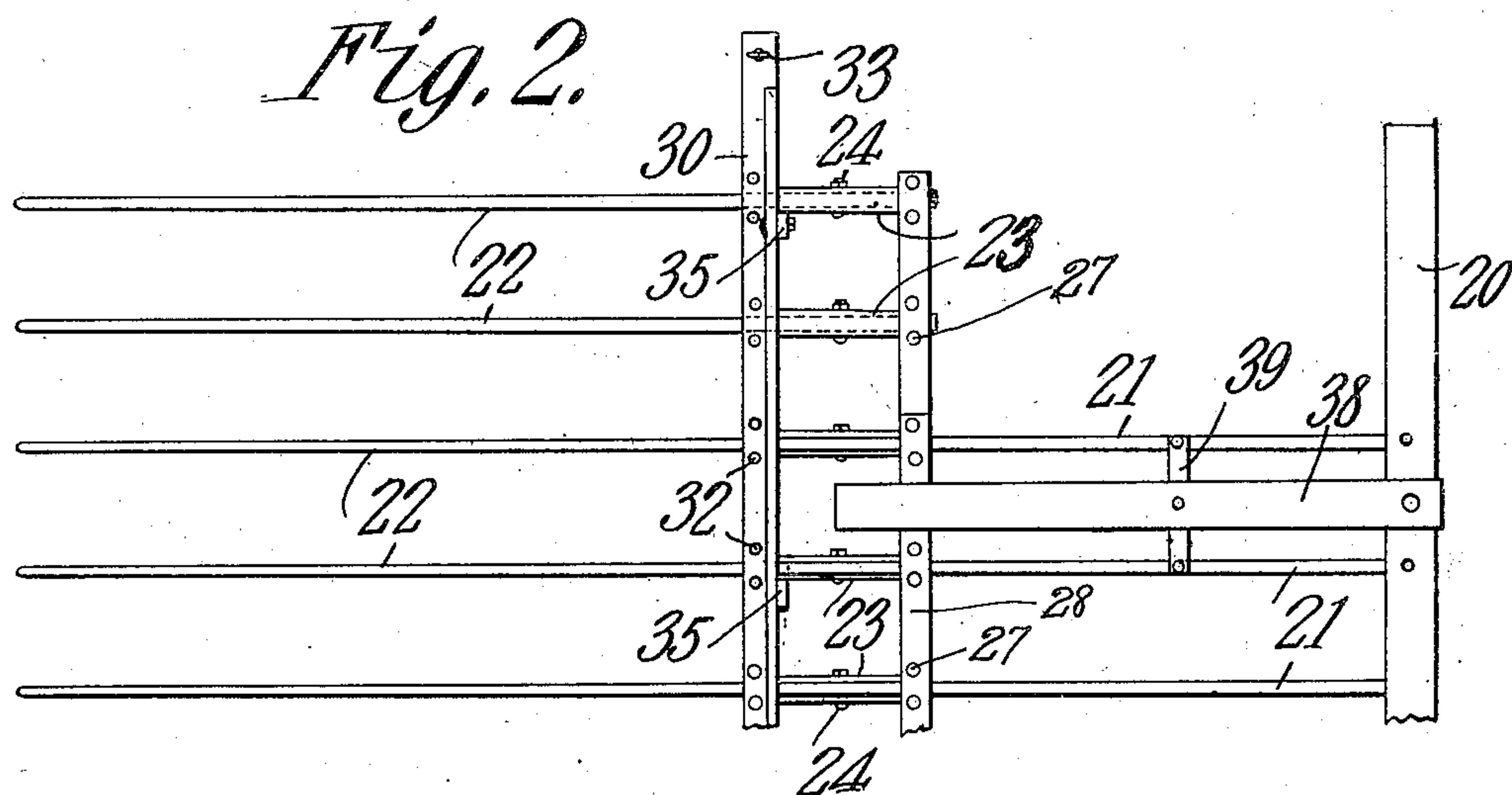
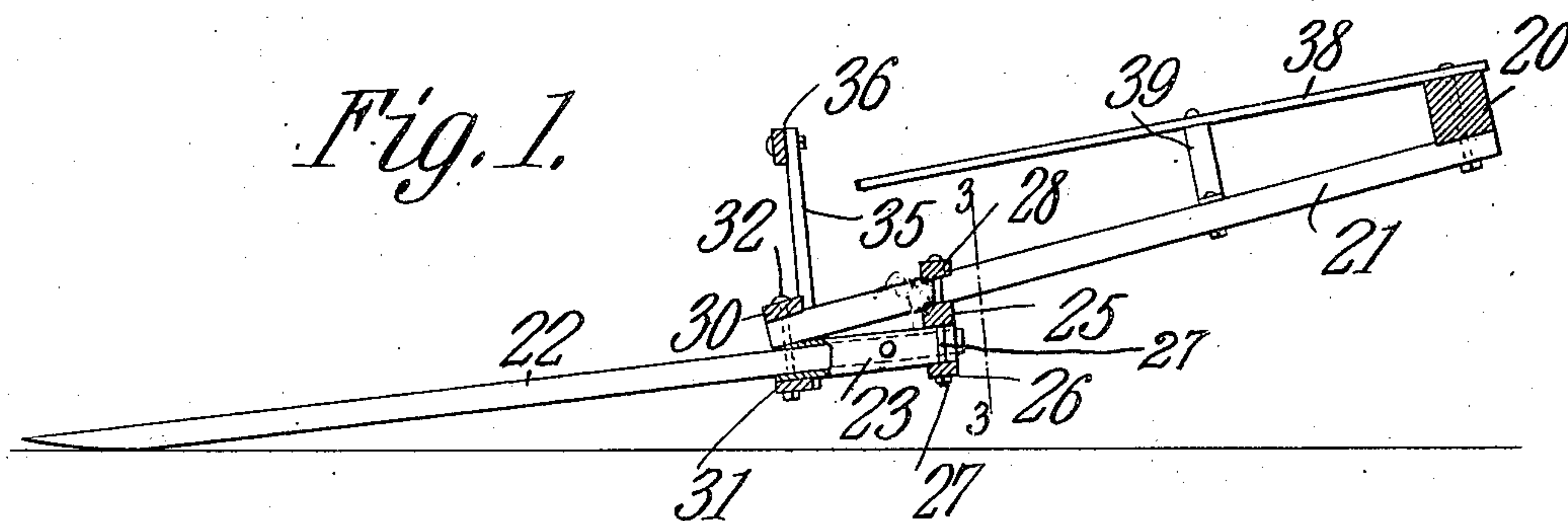
PATENTED JAN. 28, 1908.

W. BAKER.

FORK FOR LOADING APPARATUS.

APPLICATION FILED JULY 26, 1907.

2 SHEETS—SHEET 1.



Witnesses

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E. J. Stewart
J. M. E. Parker

Inventor.

Wilfred Baker;

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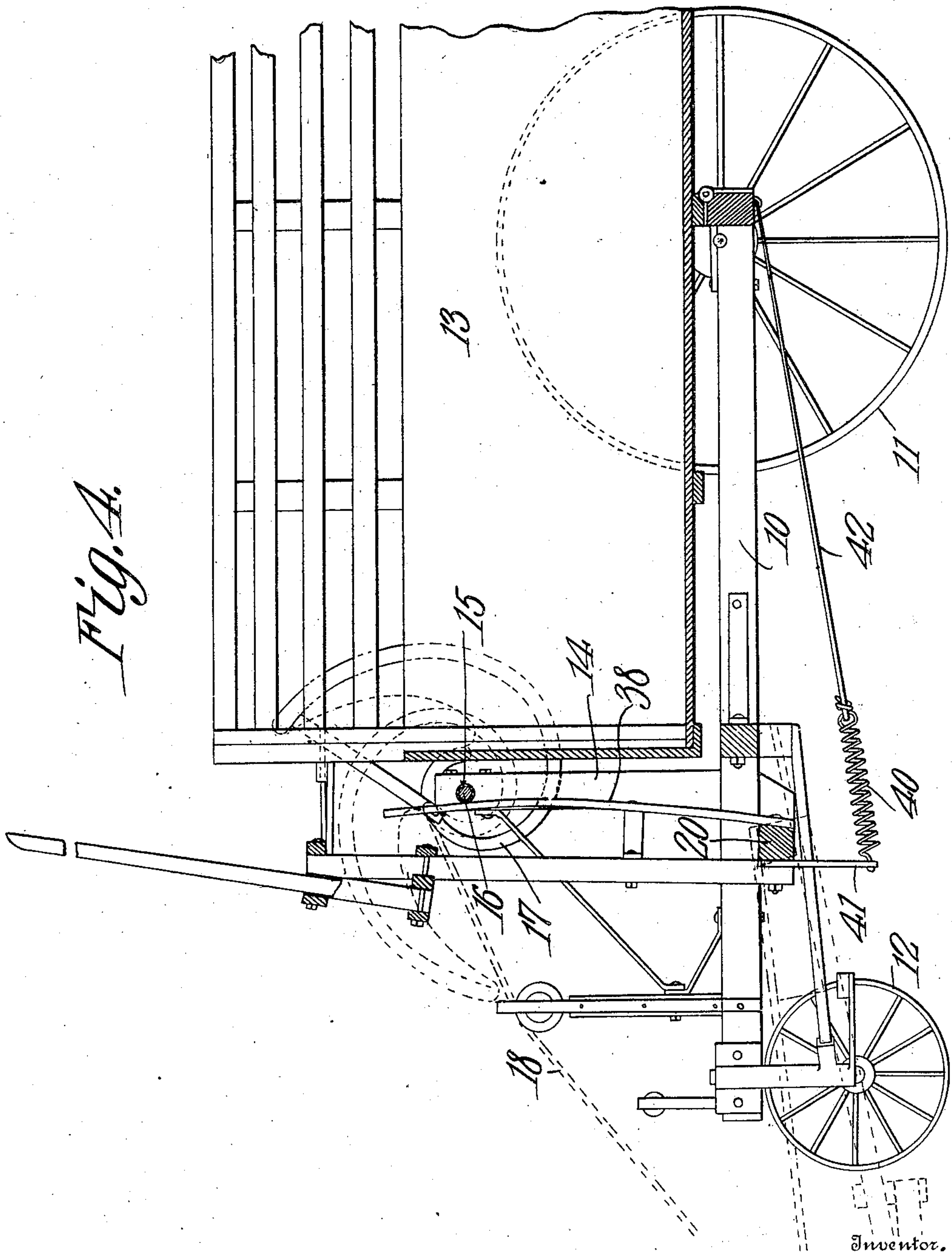
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILFRED BAKER, OF ABERDEEN, SOUTH DAKOTA, ASSIGNOR OF TWO-FIFTHS TO JAMES McCABE, OF MINNEAPOLIS, MINNESOTA, AND TWO-FIFTHS TO FRANK CRANE, OF CUMMINGS, NORTH DAKOTA.

FORK FOR LOADING APPARATUS.

No. 877,477.

Specification of Letters Patent.

Patented Jan. 28, 1908.

Application filed July 26, 1907. Serial No. 385,706.

To all whom it may concern:

Be it known that I, WILFRED BAKER, a citizen of the United States, residing at Aberdeen, in the county of Brown and State of South Dakota, have invented a new and useful Fork for Loading Apparatus, of which the following is a specification.

This invention relates to shock loaders, or devices for delivering shocks, hay, fodder and the like into wagons without stopping the travel of the wagons.

The principal of the invention is to provide an improved form of fork to be placed at the front of the vehicle and to employ means for gradually checking or cushioning the movement of the fork at the completion of the load delivering operation, without lessening the momentum of the load, so that the latter will be tossed into the box or other receptacle on the wagon.

A further object of the invention is to provide a fork of simple but strong construction in which provision is made for permitting ready renewal of any of the tines or other parts which may be accidentally broken.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, herein- after fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a longitudinal sectional view of a fork constructed in accordance with the invention. Fig. 2 is a plan view of a portion of the same. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1, the view being on an enlarged scale. Fig. 4 is a sectional elevation showing the fork applied to a loading apparatus, the fork being illustrated in the load delivering position.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The loading apparatus illustrated in Fig. 4 comprises in general a frame 10 mounted on wheels 11 and 12 and carrying a box or receptacle 13. Near the front of the frame

are standards 14 connected by a tube 15 within which is an operating shaft 16. The shaft is provided with snails 17 around which pass lifting cables 18 that are attached to the fork.

The fork comprises a rear bar 20 that is pivoted in any suitable manner to the frame 10, and rigidly bolted to the under side of this bar are a number of forwardly projecting parallel bars 21 which carry the tines or fork proper.

The tines 22 are of any appropriate shape and the rear end of each tine fits within a metallic socket or sleeve 23 that corresponds in cross section to the tine, and the latter is held in place by a suitable bolt 24 that extends through openings formed in the tine and parallel side walls of the socket. The rear ends of the socket members are confined between two parallel bars 25—26 which bars are held together by bolts 27, and the bolts are arranged in pairs, a socket being held between the bolts of each pair in order to prevent lateral displacement. Above the upper bar 25 is arranged a third bar 28 and between the two bars 25 and 28 extend the carrying bars 21 which are held in place by the intermediate bolts 27, the latter being of sufficient length to pass through all three of the transverse bars.

The forward ends of the sockets 23 are held between upper and lower bars 30—31, which bars are confined by bolts 32, that are also arranged in pairs the bolts comprising each pair serving as a means for preventing lateral movement of the forward ends of the sockets, and the forward ends of the carrying bars 21 pass between the upper bars 30 and the upper walls of the sockets, as will be seen on reference to Fig. 1.

The opposite ends of the bar 30 are provided with eyes 33 for connection to the lifting cables 18 and to both bars 30 and 31 are secured upright arms 35 which are connected at the top by a cross bar 36, this structure forming the rear of the fork and serving to prevent accidental sliding of any portion of the load down below a point where it could be discharged into the receptacle.

Secured to the main bar 20 of the fork is a pair of spring arms 38 which are supported at a point intermediate their ends by small cross bars or bridge pieces 39 that are carried by the bars 21, these bars or bridge

pieces 39 forming the fulcrums or bending points of the spring. As the fork is moved upward from the approximately horizontal to the approximately vertical position, the
5 springs 28 will come into engagement with the tube 15 or other fixed stop, as indicated in Fig. 4, thus checking the movement of the fork without diminishing the momentum of the load, so that the latter will be tossed back
10 to the box or receptacle.

In order to assist in turning the fork to load receiving position, a spring 40 is employed, the forward end of the spring being connected by an arm 41 that is carried by the
15 cross bar 20, while the rear end of the spring is connected by a cable or chain 42 to a fixed portion of the frame.

I claim:—

1. In loading apparatus, a fork including
20 a pair of sets of upper and lower clamping bars, socket members clamped between said bars, and independently detachable tines carried by said socket members.

2. In loading apparatus, a fork including

a main pivot bar, a plurality of supporting
25 bars extending therefrom, a pair of sets of clamping bars between which the supporting bars are held, socket members also secured between said clamping bars, and fork tines
30 mounted in said sockets.

3. In loading apparatus, a pivotally
35 mounted fork, a spring arm carried thereby, and a fixed stop with which said arm engages to limit movement of the fork.

4. In a loading apparatus, a pivotally
40 mounted fork, a pair of spring arms carried thereby, supports for the end and intermediate portions of said arms, and a fixed stop with which said arms engage to limit movement of the fork.

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

WILFRED BAKER.

Witnesses:

I. O. CURTISS,

F. G. HUNTINGTON.