

No. 640,230.

Patented Jan. 2, 1900.

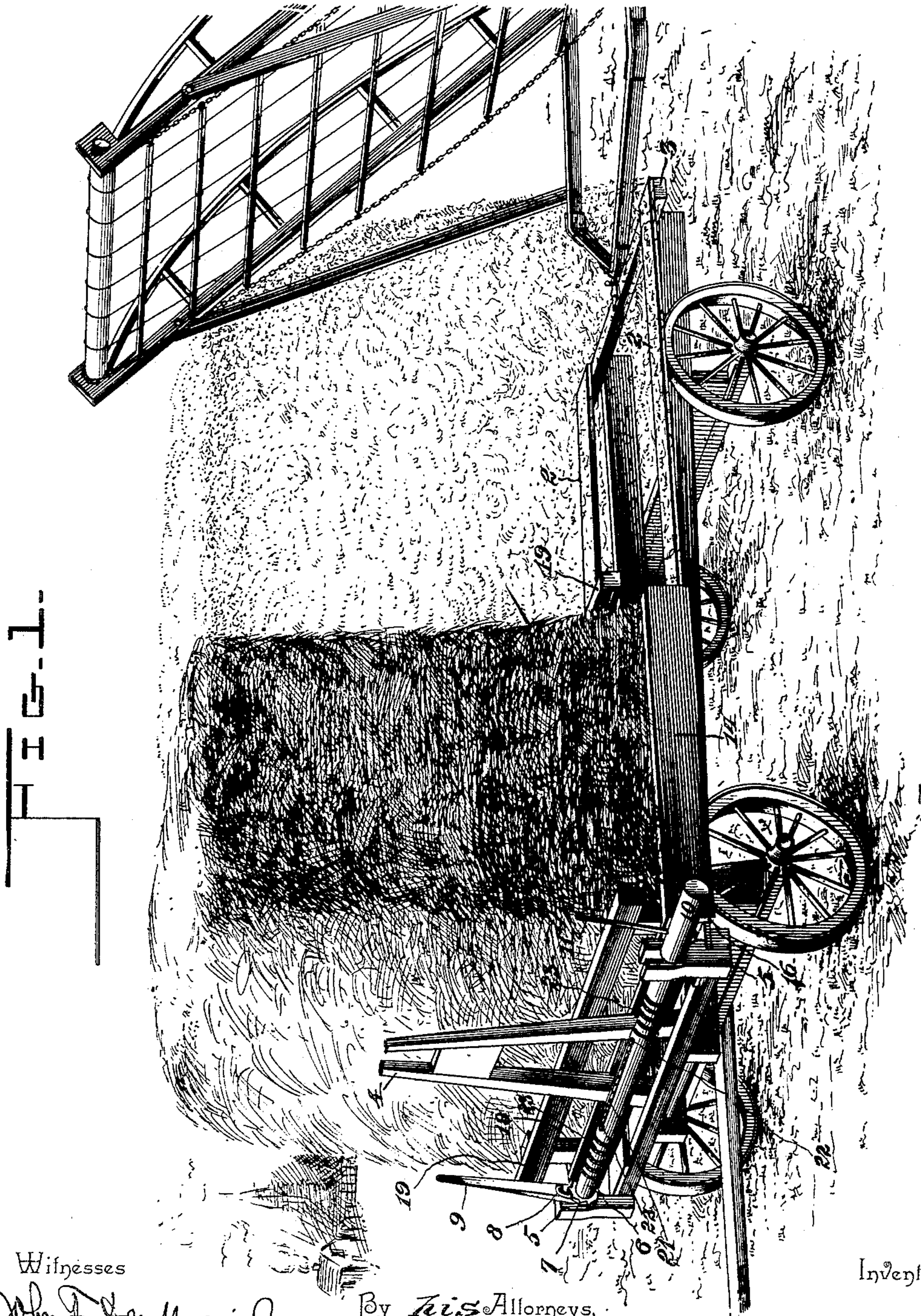
J. RYAN.

LOAD CONTROLLING DEVICE.

(No Model.)

(Application filed Sept. 9, 1899.)

2 Sheets—Sheet 1.



Witnesses

John F. Deuffermel
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By his Attorneys,

Inventor

James Ryan,
C. A. Snow & Co.

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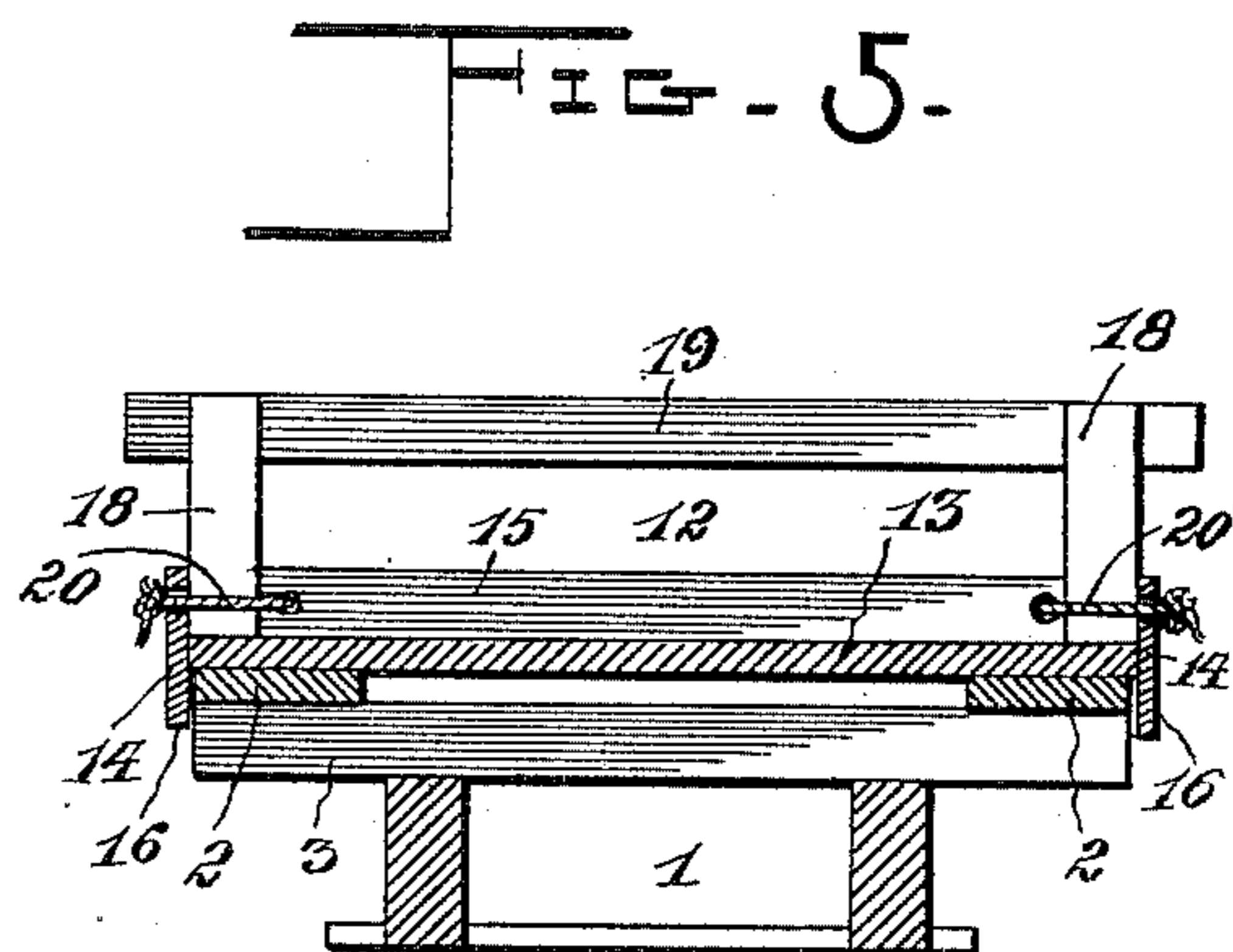
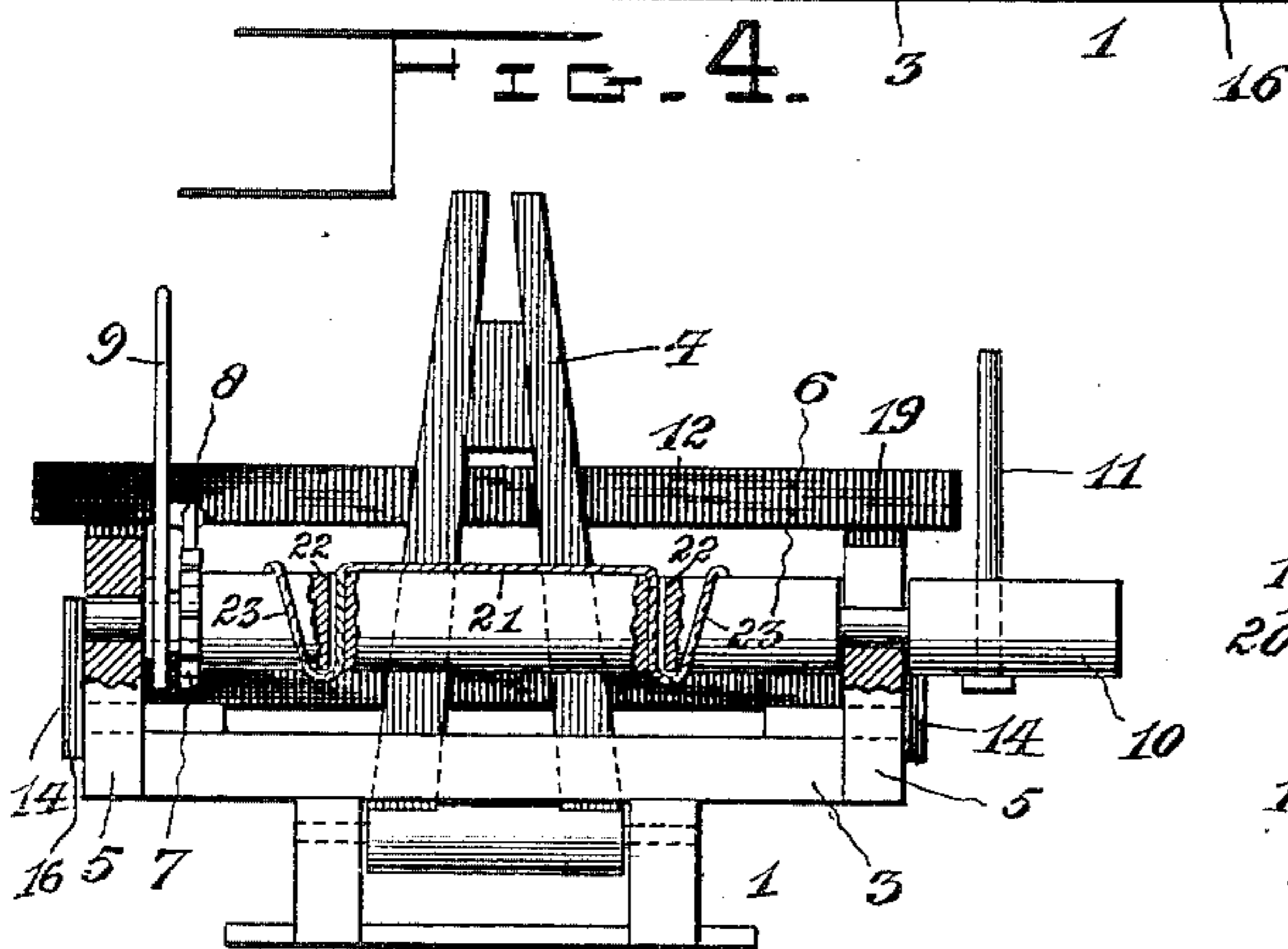
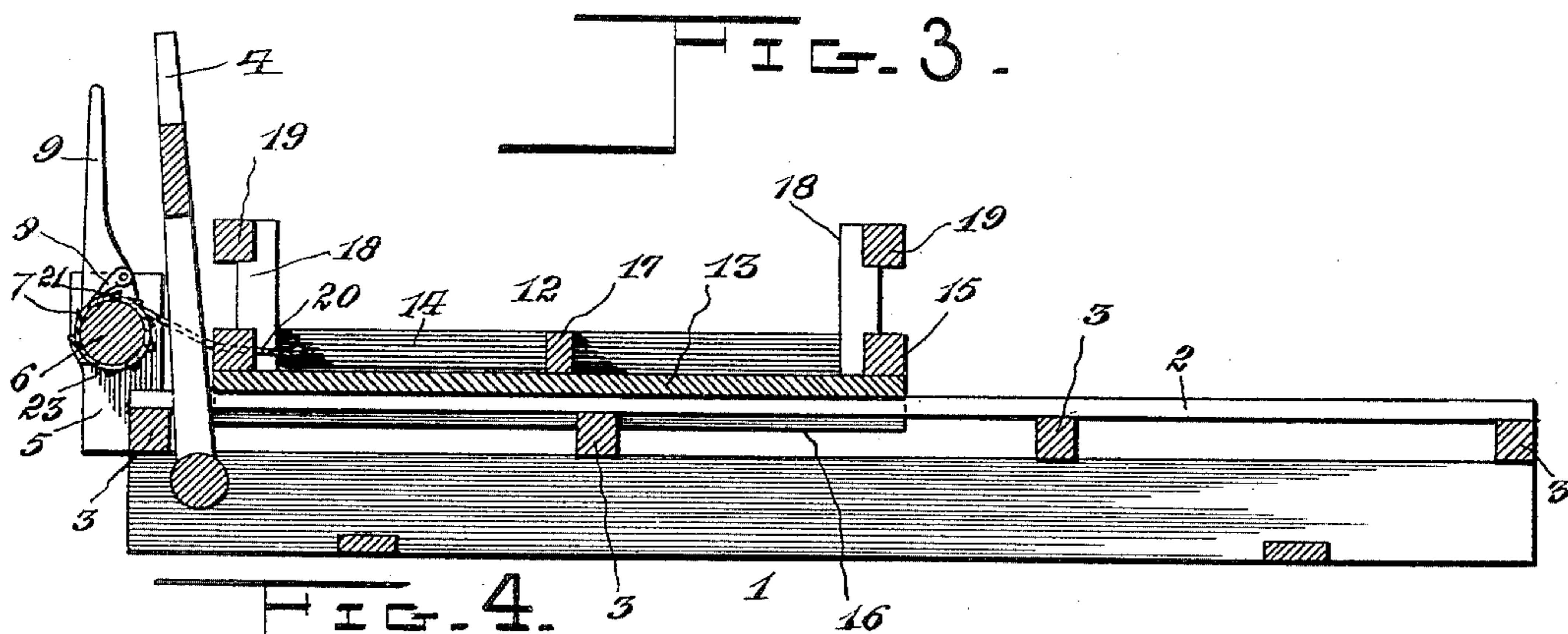
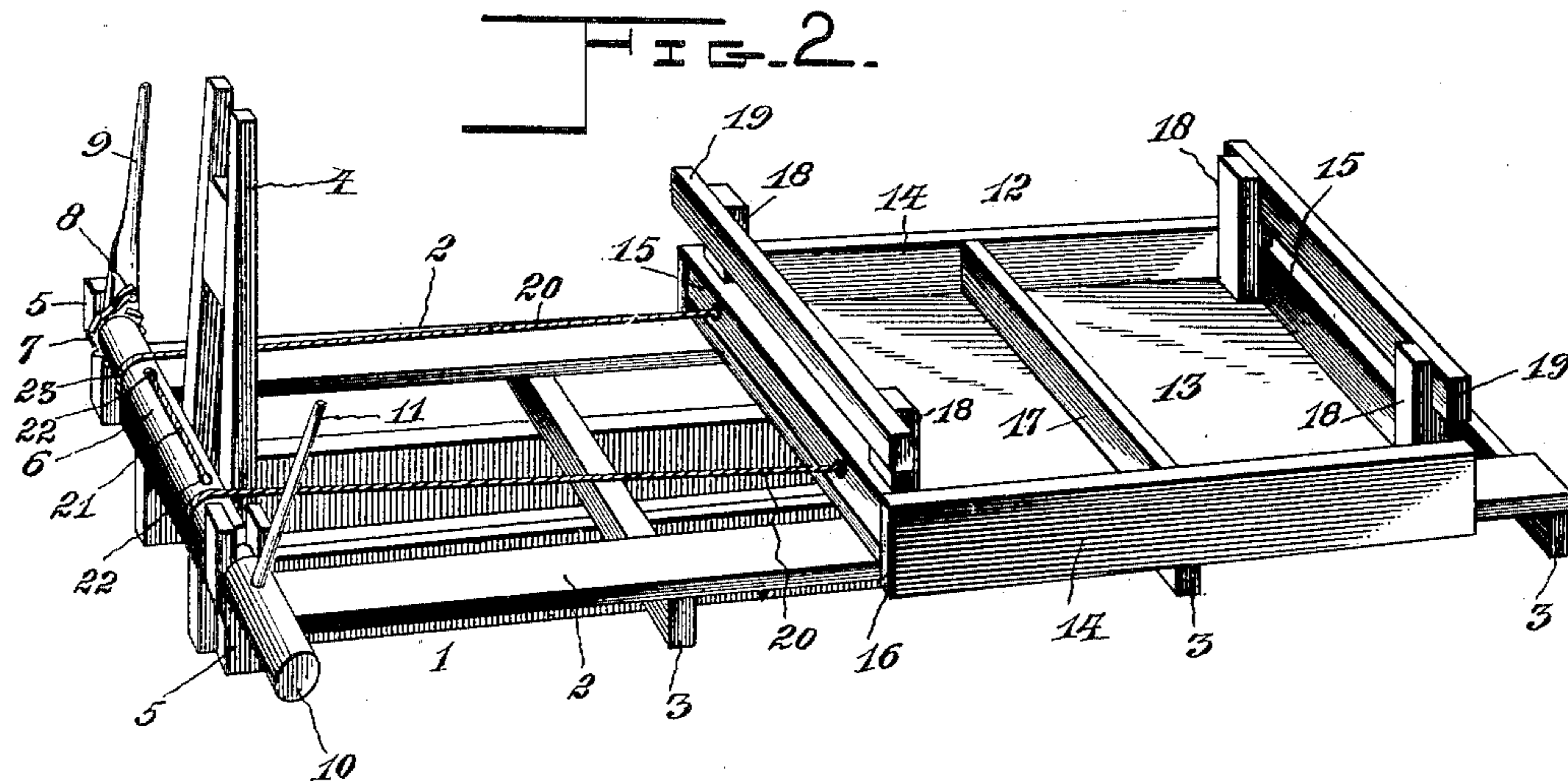
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UNITED STATES PATENT OFFICE.

JAMES RYAN, OF ROCKVILLE, INDIANA.

LOAD-CONTROLLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 640,230, dated January 2, 1900.

Application filed September 9, 1899. Serial No. 729,973. (No model.)

To all whom it may concern:

Be it known that I, JAMES RYAN, a citizen of the United States, residing at Rockville, in the county of Parke and State of Indiana, have
5 invented a new and useful Load-Controlling Device, of which the following is a specification.

This invention relates to devices for controlling loading of vehicles and particularly
10 adapted for use in loading hay upon ordinary racks or wagon-beds adapted for the purpose; and it has for its object to provide simple, effective, and compact means for facilitating the disposal of the load upon a rack or wagon-
15 bed through the medium of a movable or shiftable load-carrier of less length than the rack or bed on which it is placed and which first receives the load to a predetermined extent and is afterward moved to permit the remain-
20 ing portion of the rack or bed to be loaded, thereby requiring a reduced number of attendants or loaders and affording means for more uniformly distributing the load weight.

The invention consists in the construction
25 and arrangement of the several parts, which will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a perspective view of the improved device, showing the
30 manner of loading the same and the load partly on the bed or rack. Fig. 2 is a perspective view of a rack or bed having the improved loading attachment applied thereto and shown positioned at the rear of the same
35 and in unloaded condition. Fig. 3 is a longitudinal vertical section of the arrangement of the devices shown by Fig. 1 and the loading attachment in a different position. Fig. 4 is a front end elevation, partly in section.
40 Fig. 5 is a transverse vertical section through the bed or rack and the loading attachment.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

45 The numeral 1 designates the usual or ordinary form of rack or bed, having opposite longitudinally-disposed side-boards 2, which are laid flat and supported by cross-bars 3 at the front, rear, and intermediate points. At
50 the front end of the rack or bed 1 a ladder 4 is movably positioned for well-known use,

and in uprights 5 at the front end of said rack or bed a roller or windlass 6 is journaled and has attached at one end thereof a ratchet-wheel 7, which is relatively engaged by a dog
55 8, carried by an operating-lever 9, the latter being adjacently supported, and these devices operable to rotate the roller or windlass 6 and hold the same in adjusted position or
60 against backward movement for a purpose which will be presently set forth. The opposite end of the roller or windlass 6 is extended at 10 and provided with means for receiving a hand-bar 11 to rotate the said roller
65 or windlass in a direction reverse to that imparted by the lever 9 or at times in the same direction, if so desired and found necessary. It will be understood that in the reverse movement of the roller or windlass 6 the dog
70 8 must be released from the ratchet 7.

On the bed or rack a carrier 12 is movably mounted, and comprises a closed bottom
75 13 with opposite sides and ends 14 and 15. The sides 14 depend below the bottom 13 to provide opposite side guides 16, which bear against the outer edges of the boards 2 and prevent the carrier from sliding off said board. The sides 14 are connected at an intermediate point by a cross-brace 17, and at the corners
80 are short uprights 18, to which are secured transverse rails 19, which provide means for establishing a secure foundation for the material deposited on the carrier in the initial operation of loading the same, and thereby
85 support the load on said carrier with stability. The carrier is free to slide over the boards 2, and attached to the opposite extremities of the front end thereof are the rear terminals of a rope or cable 20, which has the front
90 looped end 21 disposed in or passed through openings 22 at a distance apart on opposite sides of the center of the said roller, the opposite parts of the rope or cable after passage through the said openings 22 being carried
95 forwardly and then upwardly over the roller, as shown at 23, and then run to the rear and attached to the carrier, as set forth. This mode of arranging the rope or cable 20 institutes an equal draft on opposite sides of the carrier and prevents the latter from binding
100 on the boards 2 and also affords means for bringing the said carrier close up to the lad-

der 4. By the connection of the rope or cable 20 with the windlass in the manner described its desired position is permanently maintained, and an equal winding and unwinding is also acquired by such disposition of the rope or cable.

This loading attachment may be conveniently used with other hay-loading devices, as shown by Fig. 1, but is also intended for conveniently loading a wagon in the ordinary manner. The carrier is first drawn back to the rear of the rack or bed 1, as shown in Fig. 1. In loading the carrier in the ordinary manner the hay is pitched thereon until the desired quantity is received thereby. The front rail 19 prevents the hay from becoming tucked under the carrier, and the rear similar rail also keeps the hay from catching at the rear end, particularly when the carrier is moved forward. After the requisite load has been deposited on the carrier the roller or windlass 6 is operated to draw the carrier toward the front, as shown by Fig. 2, thus leaving the rear part of the rack or bed clear for the reception of the remaining part of the load. This rear part of the bed or rack is then loaded in the usual manner, and by this appliance it will be seen that one man can control the load without assistance, which will be a material saving in labor and expense. Where loading mechanism is used, as shown in part by Fig. 1, the delivery end of said mechanism is arranged over the carrier and subsequently over the rear of the bed or rack after the carrier has been sufficiently loaded. In unloading a hay-wagon supplied with the improvement the usual course may be easily pursued, and if it be found more convenient to shift the load on the carrier after the bed or rack has been relieved of a part of the load in the rear of the same said operation can be quickly carried out and will afford material benefit in bringing the carrier up closer to a certain part of the mow or hay-loft door or other place. The improved device can also be easily applied to racks or beds in use without very much expense, and at times, if it is desired to use a bed or rack without the carrier, the latter can be easily disconnected by detaching the roller or windlass 6.

To accommodate various applications of the parts of the improvement, changes in the form, proportions, and minor details can be resorted to without in the least departing

from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a body or rack having an ordinary construction at the rear extremity, of a windlass mounted on the front portion of the said body or rack, said rack being horizontally disposed and extending in a transverse direction, and a carrier approximately one-half the length of the body or rack and slidably mounted thereon and operable by said windlass, the said carrier being adapted to be loaded and shifted to the front of the body or rack and the rear portion of the latter afterward similarly loaded or as in the ordinary manner, and a rope or cable in fixed relation to opposite portions of the windlass and secured to the carrier adjacent opposite ends.

2. The combination with a wagon-bed or rack, of a windlass mounted in the front portion thereof, a carrier of approximately one-half the length of the bed or rack and slidably disposed thereon, the said carrier being provided with opposite depending side guides, and a rope or cable connected to the windlass and to the front end of the said carrier.

3. The combination with a wagon-bed or rack, of a windlass mounted in the front portion thereof, a carrier of less length than the bed or rack and slidably mounted thereon, the said carrier being provided with front and rear end transversely-extending rails and opposite depending side guides, and a rope or cable connected to the windlass and the front end of the carrier.

4. The combination with a wagon-bed or rack, of a windlass mounted in the front portion thereof and having openings there-through on opposite sides of the center, a carrier of less length than the bed or rack and slidably mounted thereon, and a rope or cable having its terminals attached to the front end of the carrier adjacent opposite sides and front looped end passed through the openings in the windlass and then brought around forwardly and over the said windlass.

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

JAMES RYAN.

Witnesses:

JOHN S. McFADDIN,
EMMA EAMES.