

(No Model.)

W. P. CANNING.

FEED ROLL WEIGHTING DEVICE FOR CARDING ENGINES.

No. 504,707.

Patented Sept. 12, 1893.

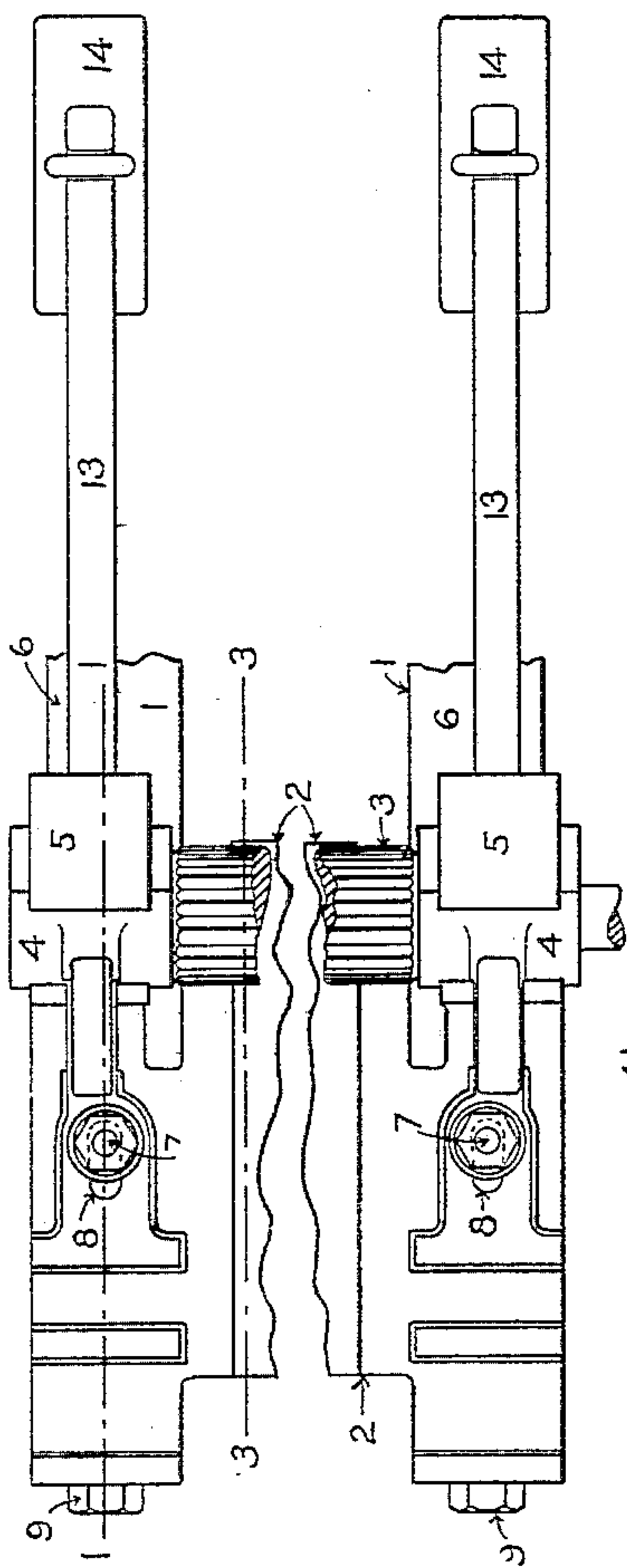


FIG. 2.

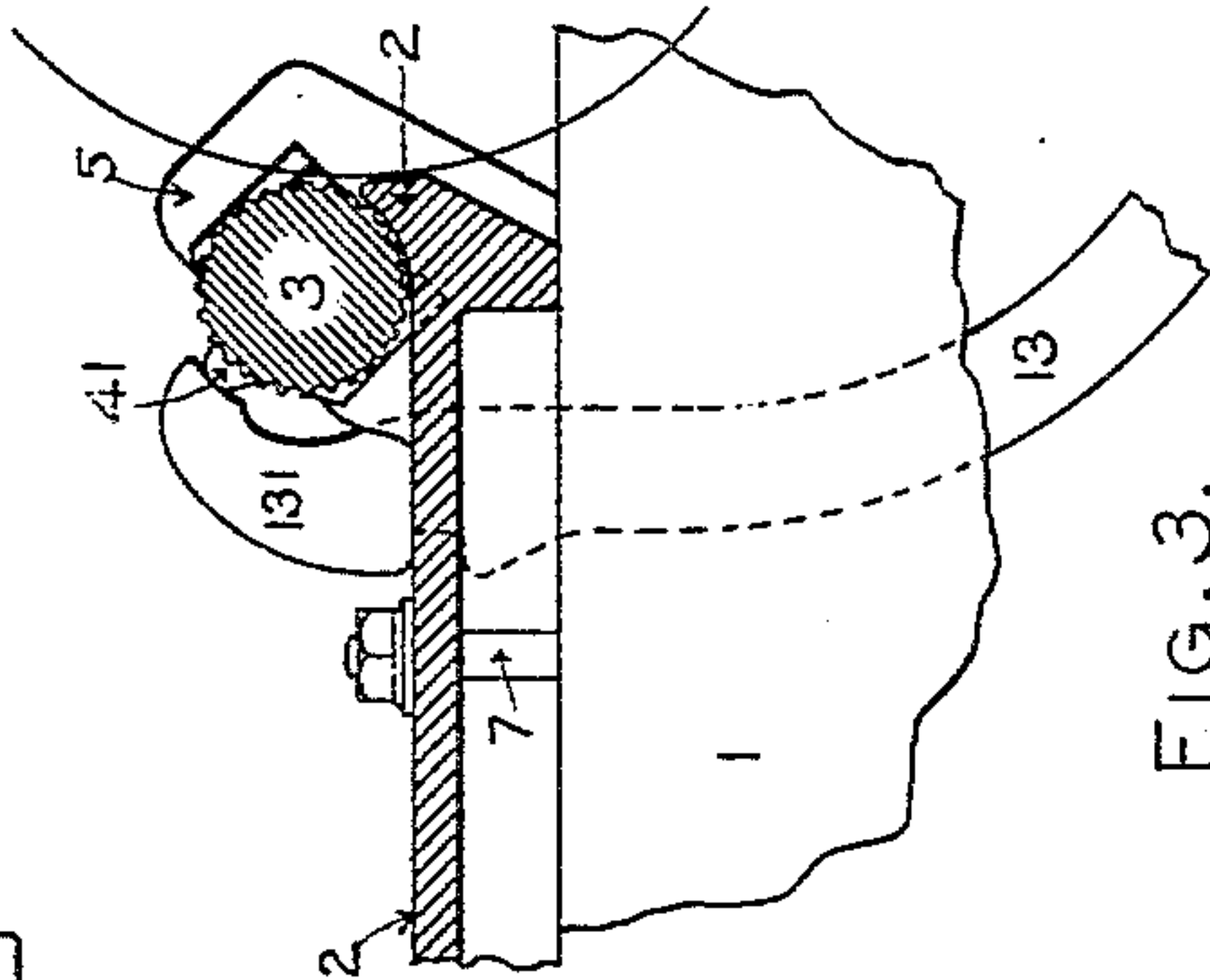


FIG. 3.

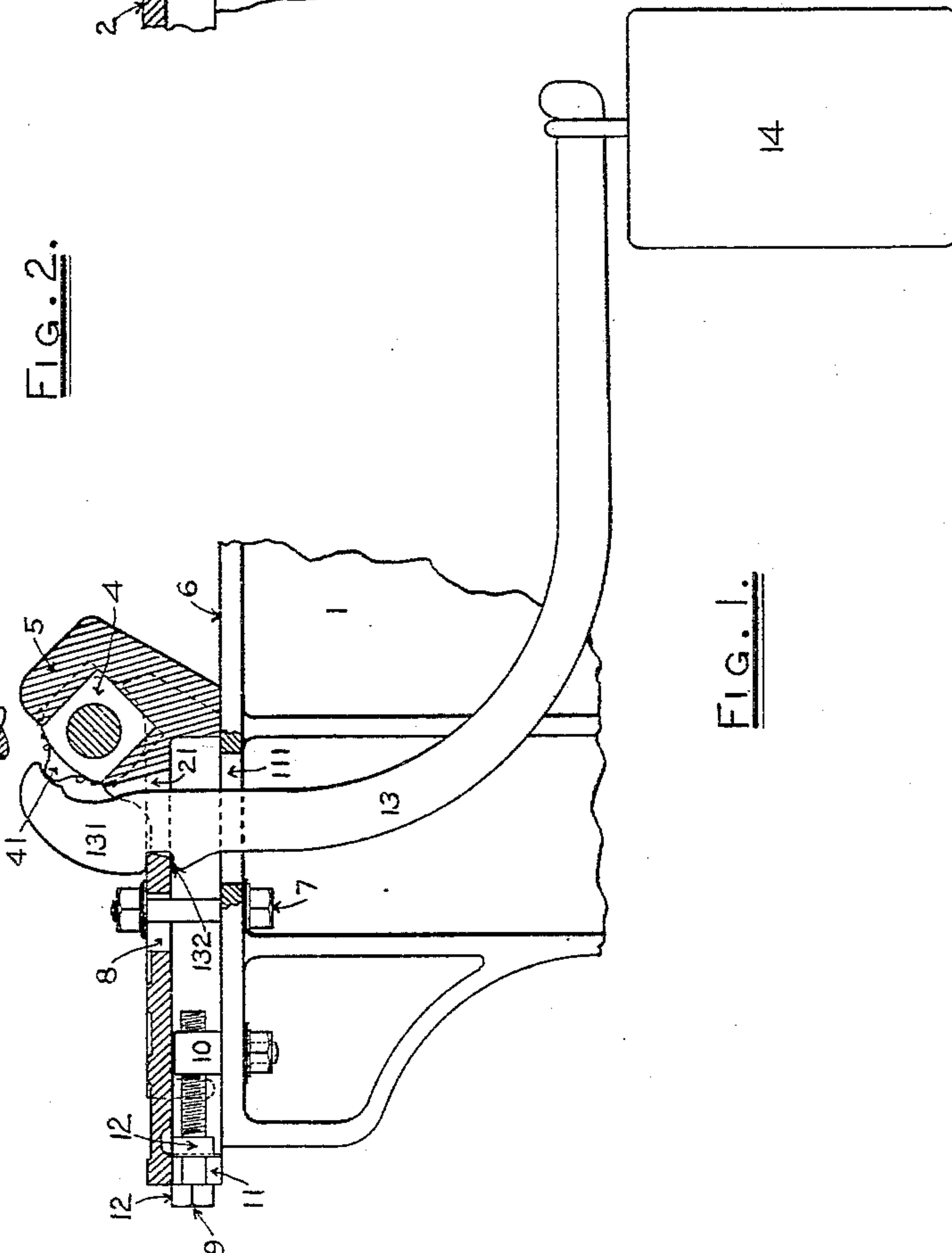


FIG. 1.

WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM PITT CANNING, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE  
LOWELL MACHINE SHOP, OF SAME PLACE.

## FEED-ROLL-WEIGHTING DEVICE FOR CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 504,707, dated September 12, 1893.

Application filed June 26, 1893. Serial No. 478,790. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM PITT CANNING, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Feed-Roll-Weighting Devices for Carding-Engines and the Like Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to the devices which are employed for weighting the feed-rolls of carding engines and other machines for treating fibrous materials, and has more particular reference to the devices that are used in connection with what are known as "shell feeds."

The objects of the invention are to provide an efficient weighting device of cheap and convenient construction in which certain parts are removed to a place below the top of the machine framing, in which position they will be more out of the way than are the corresponding parts of most of the weighting devices at present in use.

The invention consists in a novel and improved combination of parts embodying a novel construction and arrangement of the latter. It will first be described with reference to the accompanying drawings, and then will be particularly pointed out and clearly defined in the claims at the close of this specification.

In the drawings, Figure 1 is a view in section on the dotted line 1—1 of Fig. 2 showing portions of the side framings of a carding engine, or the like machine, with a feed-roller and shell mounted thereon, and with my improved weighting device applied, the weight-lever and weight being shown in elevation. Fig. 2 is a view in plan, showing my invention applied in connection with the two ends of a feed-roller and shell. Fig. 3 is a view in vertical section on line 3—3 of Fig. 2.

At 1, 1, are shown the side frames of a carding engine or the like machine. At 2 is shown the feeder shell, and at 3 is shown the feed-roller co-operating with the said shell.

At 4, 4, are shown the boxes or blocks which contain the bearings for the journals of the feed-roller 3, these blocks sliding in inclined guideways in the portions 5, 5, which are

formed in one with the shell. The ends of the shell rest on the horizontal plane surfaces 6, 6, which are provided on the side frames 1, 1, and they are held thereto by the bolts 7, 7, passing through slots 8, 8, in the horizontal end portions of the shell. The shell and feed-roller are adjusted together along the surfaces 6, 6, by means of bolts 9, 9, which bolts have their threaded portions fitted to internally threaded blocks such as that which is shown at 10 in Fig. 1 affixed to the side-framing 1, the said bolts being also passed through slots such as that which is shown at 11, in Fig. 1, formed in depending portions of the shell, each bolt having thereon heads or collars 12, 12, at opposite sides of the corresponding depending portion to prevent the bolt from moving endwise relatively to the shell.

At 13, 13, are shown the weight levers. The upper and shorter arm 131 of each of the said levers is bent rearwardly or to the right in the drawings to a slight extent, and bears against the projection 41 on the corresponding box or block 4. The body of each lever extends through a slot 21 in the horizontal extension or plate of the shell 2, and a notch 132 which is formed in the forward or left-hand side or edge of the lever receives a portion of the shell at the forward or left-hand end of the slot 21. The said portion of the shell which enters the notch 132 in the lever 13 serves as a support and fulcrum for the lever. The portion of the lever in which the notch 132 is formed is substantially vertical when the lever is in place in the machine in which it is used, but the lower arm of the lever, it being located below the shell and entirely out of the way, is formed so that it extends rearwardly or toward the right in Fig. 1, and occupies a position which is horizontal or substantially so.

Beneath the slot 21 at each end of the shell there is formed in the corresponding side-frame, 1, a similar slot 111 for the passage of the lever 13 which is employed at that side of the machine.

At 14, 14, are shown the weights which are hung upon the longer horizontal ends of the levers. When the parts are combined as shown in the drawings each lever is sustained by the portion of the shell which enters the



notch 132, and its short arm 131 bears with the proper force against the projection 41 on the box or block 4 for the corresponding journal of the feed-roll.

5 By adopting the construction which is shown in the drawings the cost of construction is cheapened without disadvantage to the efficiency of the weighting device. The arrangement of parts which is shown removes the  
10 main portions of the levers, and the weights that are applied thereto, to a place below the top of the frame where they are more out of the way.

I claim as my invention—

15 1. The combination with the feed-roll, and the shell having the horizontal extension or plate formed with the opening therethrough, of the lever extending upward through said opening, applying pressure to the feed-roll by  
20 its upper end, formed with a notch to fit pivotally upon an edge of the said opening, and

having its lower end extended horizontally, and a weight applied to the said lower end, substantially as described.

2. The combination with the machine-frame- 25 ing, the shell having the horizontal extension or plate formed with the opening therethrough, and means of adjusting the shell on the machine-framing, of the lever extending upward through said opening applying pressure to 30 the feed-roll by its upper end, formed with a notch to fit pivotally upon an edge of the said opening, and having its lower end extending horizontally, and a weight applied to the said lower end, substantially as described. 35

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM PITT CANNING.

Witnesses:

MARY CAVERLY,  
SAML. G. STEPHENS.