March 4, 1930. B. ROLLMAN 1,749,509

PRESS

Original Filed Nov. 16, 1925 4 Sheets-Sheet 1

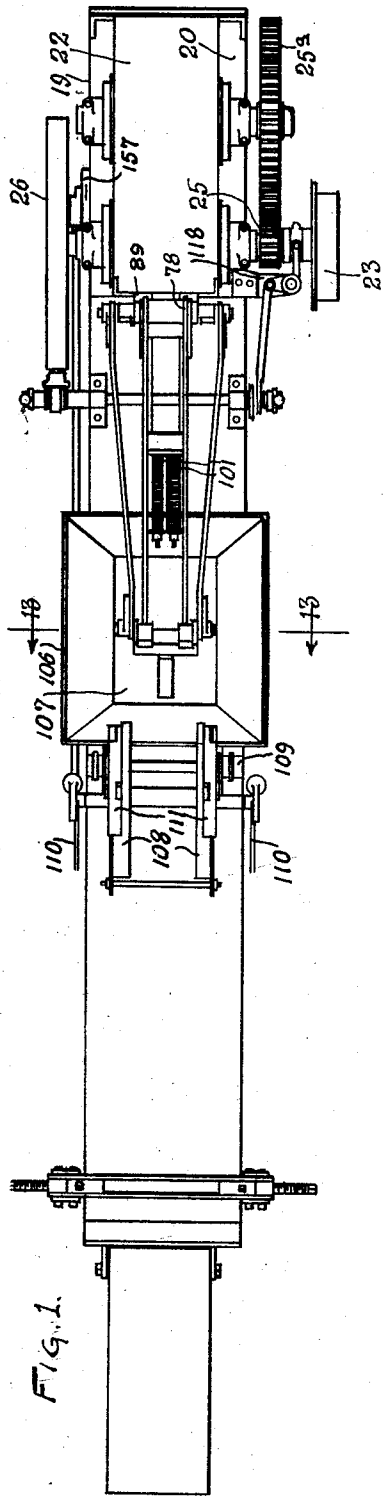


FIG. 1.

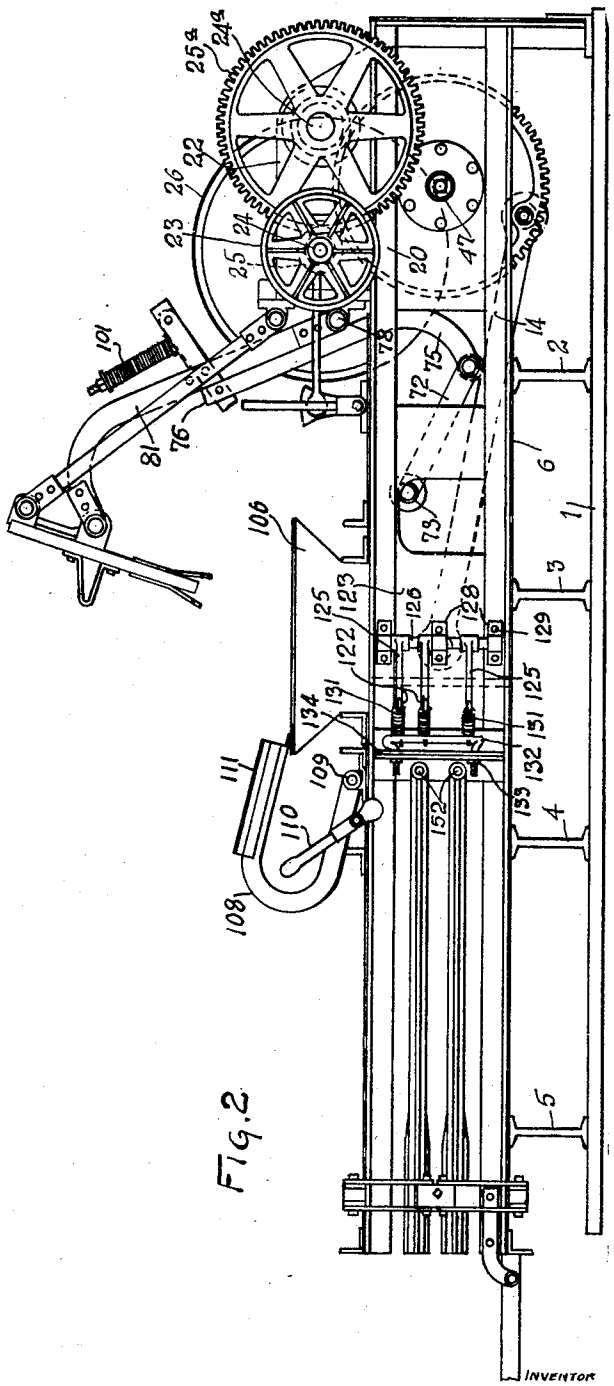


FIG. 2.

INVENTOR

Bruce Rollman,

By Poulmin & Poulmin,

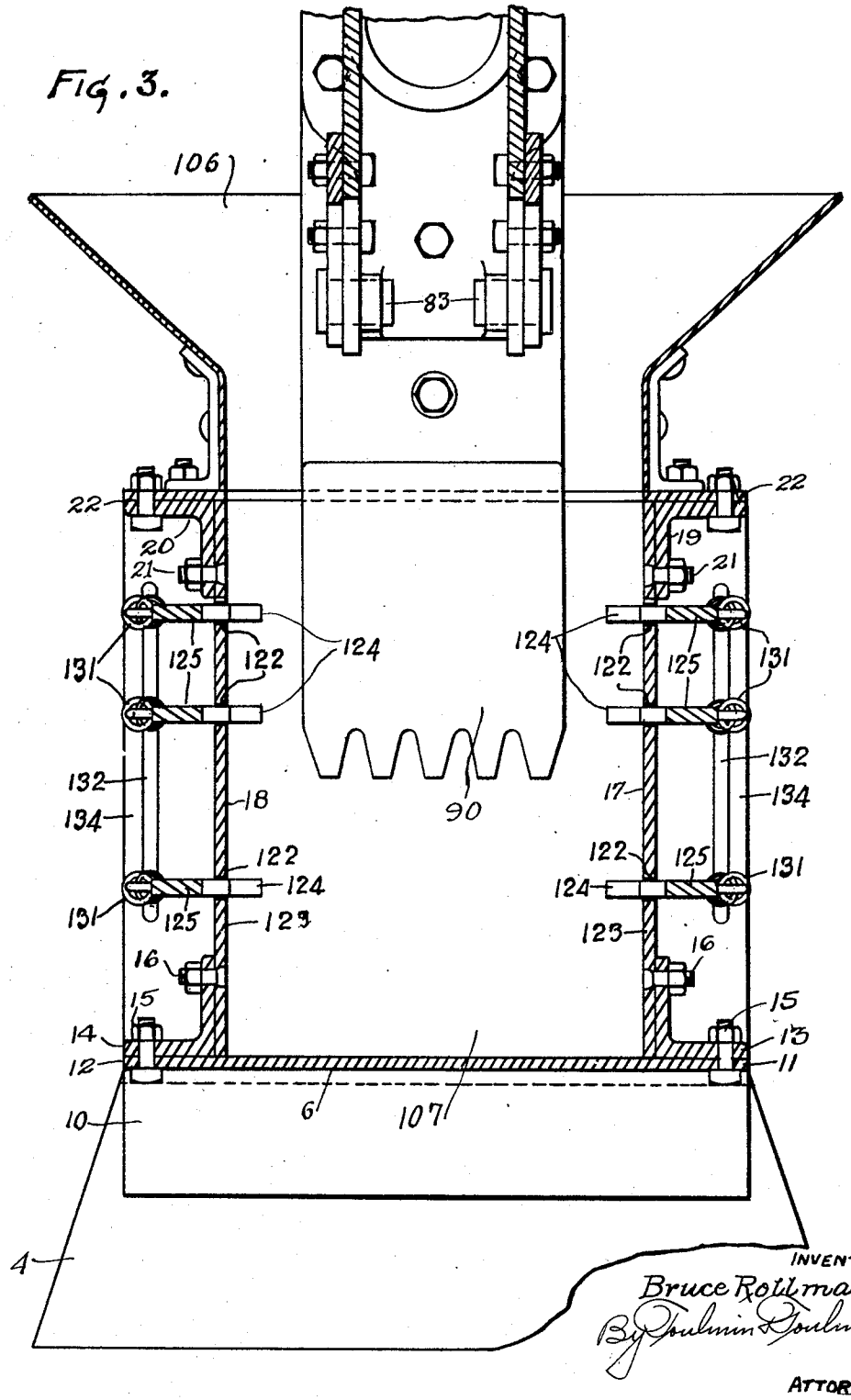
ATTORNEYS

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Fig. 3.



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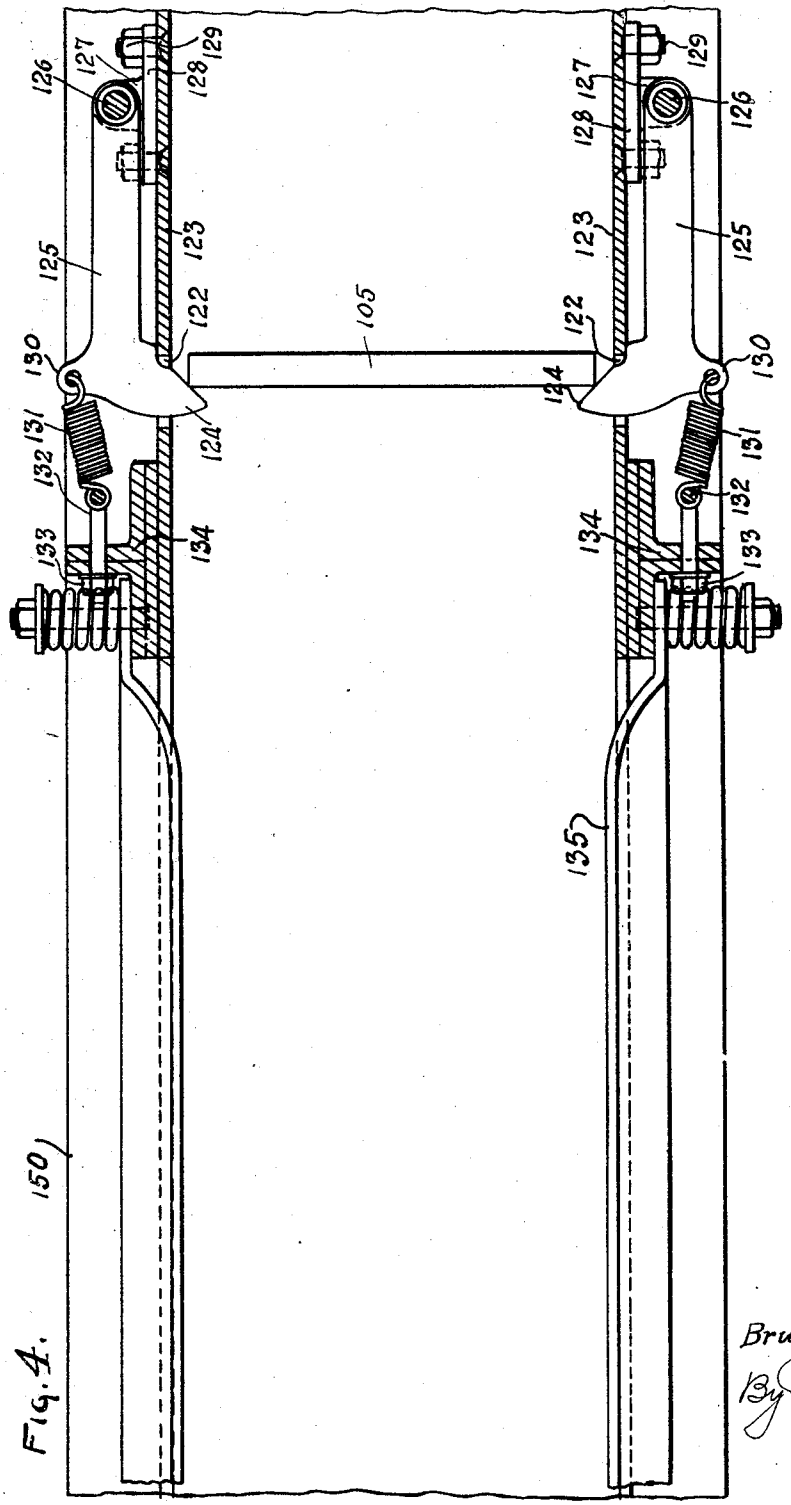


Fig. 4.

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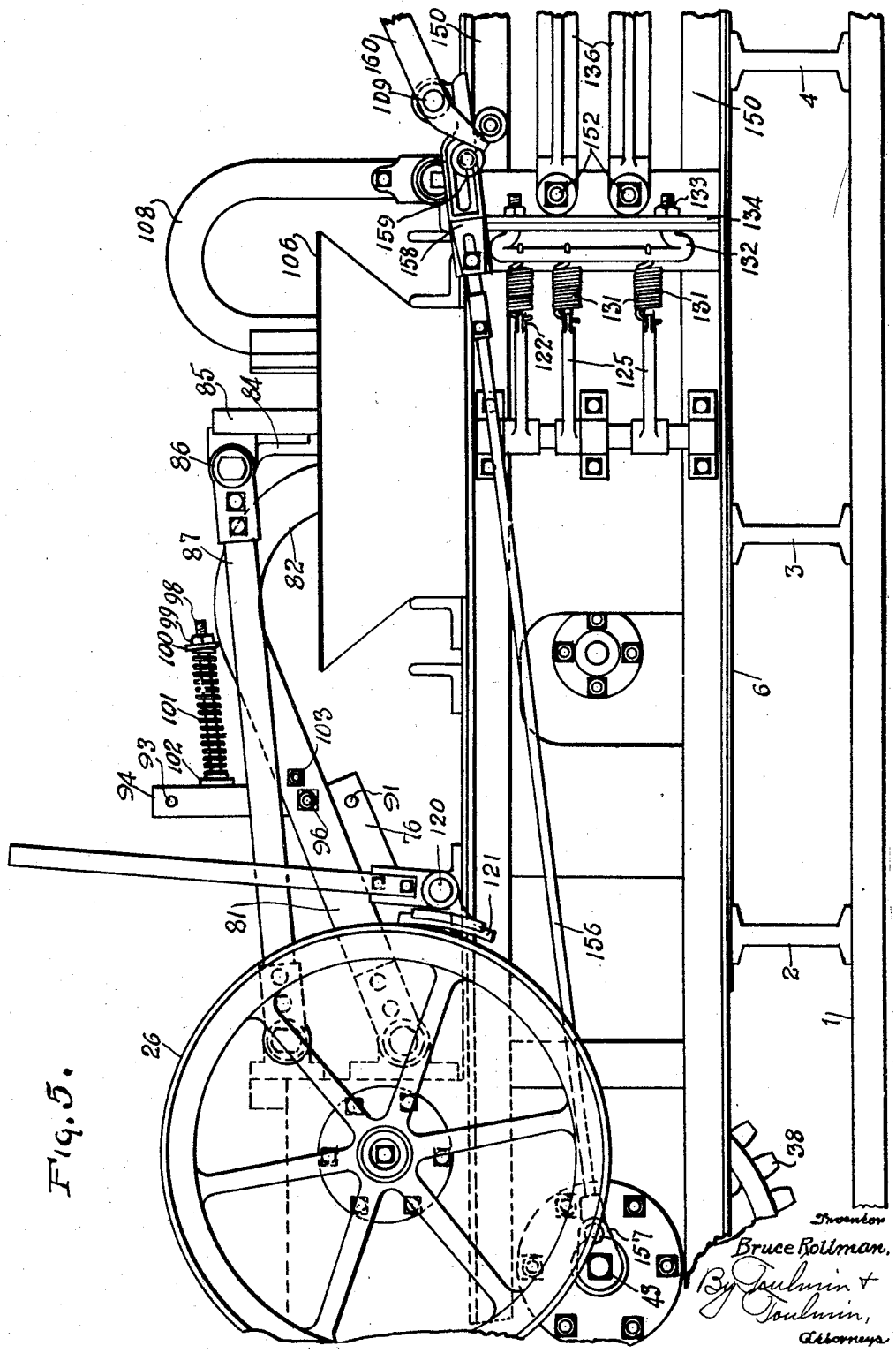


Fig. 5.

Patented Mar. 4, 1930 1,749,509

UNITED STATES PATENT OFFICE

BRUCE ROLLMAN, OF BELLEVUE, OHIO, ASSIGNOR TO THE OHIO CULTIVATOR COMPANY, OF BELLEVUE, OHIO, A CORPORATION OF OHIO

PRESS

Original application filed November 16, 1925, Serial No. 69,392. Divided and this application filed May 3, 1926. Serial No. 106,338.

My invention relates to presses and in particular to a press for the baling of paper or other finely divided and fragmentary material, and is a division of my application, Serial No. 69,392, filed November 16, 1925.

It is the object of my invention to provide a press of this character which will rapidly bale the material in question, which may be readily assembled and which will have suitable safety devices to insure continuous operation without breakage in the event foreign material is introduced in the press inadvertently.

It is an object of my invention to provide a novel form of retainer dogs for retaining the division block, which consists of a plurality of dogs mounted on a common vertical shaft, which is independently actuated and adjustable.

In the accompanying drawings:

Figure 1 is a top plan view of the complete press.

Figure 2 is a side elevation of the complete press with the feeding board in its elevated position.

Figure 3 is a section on the line 13—13 of Figure 1, showing in detail the feeding block and the retaining dogs.

Figure 4 is a plan view partially in section showing in detail a pair of the retaining dogs.

Figure 5 is an elevation showing the timing mechanism for timing the actuation of the division block, support and slide.

Referring to the drawings in detail, 1 is a base or platform on which is mounted the press. A plurality of transverse I-beams, 2, 3, 4 and 5, are arranged transversely on this platform for the purpose of supporting the bottom plate 6. Side rails 11 and 12 of the plate 6 are provided on this support, longitudinally, upon which members 11 and 12 are the angle irons or rails 13 and 14 which are supported and bolted by the bolts 15. To these lower rails, 13 and 14, are bolted by the bolts 16 the side plates 17 and 18. These side plates extend upwardly within and above upper rails 19 and 20 which are bolted thereto by the bolts 21. These side plates are capped at their upper end by a plate 22.

23 designates a driving pulley which is driven by a belt from any suitable source of power. This pulley is mounted upon the driving shaft 24 which carries the driving pinion 25 which drives a driven gear 25^a on the driven shaft 24^a. On the other end of the shaft 24 is a flywheel 26.

The division block 105 is dropped into the hopper 106 through which material is introduced to be compressed into the baling chamber 107 by the U-shaped division block supports 108 which are pivoted on top of the baling chamber at 109 and are actuated by a lever or levers 110. These supports 108 are spaced to support the edges of the block. The blocks are held in position as they slide into the hopper by the guides 111 which are mounted on the slides 108.

It will be noted that the construction of the actuating mechanism for the feeding block consists of a pair of arms 76, a pair of arms 81 and a pair of springs 101. Such an arrangement gives a steadier machine and insures that the block will be maintained in its predetermined positions.

Turning to the rear end of the baling chamber and in particular to Figures 3 and 4, it will be noted that a plurality of slots 122, one above the other on either side of the machine in the side walls 123 of the baling chamber. Through these slots project the tapered noses 124 on the retaining arms or retainer dogs for retaining the division block. These retaining dogs 125 on each side are mounted on a common vertical shaft 126 which has supporting eyes 127 on plates 128 attached by the bolts 129 to the side walls 123. The outer ends of the dogs are provided with eyes 130 into which is hooked a helical spring 131, the other end of which is mounted on a U-shaped bolt 132 that is adjustable through the nuts 133 in its position to adjust the tension of the spring 131. These bolts pass through a bracket 134 on the outside of the side walls 123. Thus, the groups of retaining dogs are adjustable but are supported upon a common vertical shaft on their respective sides in their respective series.

Having thus fully described my invention,

what I claim as new and desire to secure by Letters Patent, is:

1. In a baler, in combination with division blocks and a plurality of retaining means adapted to permit of the passage of the division block in one direction and to prevent its return movement in the other direction, said retaining means consisting of a plurality of superimposed spaced dogs, the noses of which project into the baler, yielding means to maintain them in their inward position and a common supporting plate for pivotally supporting them and a common adjusting means.

2. In a baler, in combination with division blocks and a plurality of retaining means adapted to permit of the passage of the division block in one direction and to prevent its return movement in the other direction, said retaining means consisting of a plurality of superimposed spaced dogs, the noses of which project into the baler, yielding means to maintain them in their inward position and a common supporting means for pivotally supporting them, and a common adjusting means connected to said yielding means for determining the tension of said yielding means.

3. In a baler, a dog retaining means consisting of a vertical shaft on the side of the baler, a plurality of spaced dogs having their noses projected into slots in the side of the baler so that they project into the baling chamber, a plurality of springs connected to said dogs at one end and to a U-shaped supporting and adjusting member at the other, a U-shaped supporting and adjusting member mounted on the side of the baler and means for adjusting its position thereon.

4. In a baler, a division board, retaining means consisting of a plurality of spaced superimposed levers, the ends of which are pivoted upon a common pivot and the free ends of which terminate in inwardly projecting cam-shaped portions adapted to permit the division board to pass by in one direction and to prevent it from passing backwards in the other direction, ears on the free ends of said levers, helical springs connected thereto and a supporting means for the other ends of said springs adapted to vary the tension on said springs and a shoulder on each of said levers for limiting the inward movement of the cam portions of said levers through openings in the side walls of the baler.

In testimony whereof I affix my signature.

BRUCE ROLLMAN.