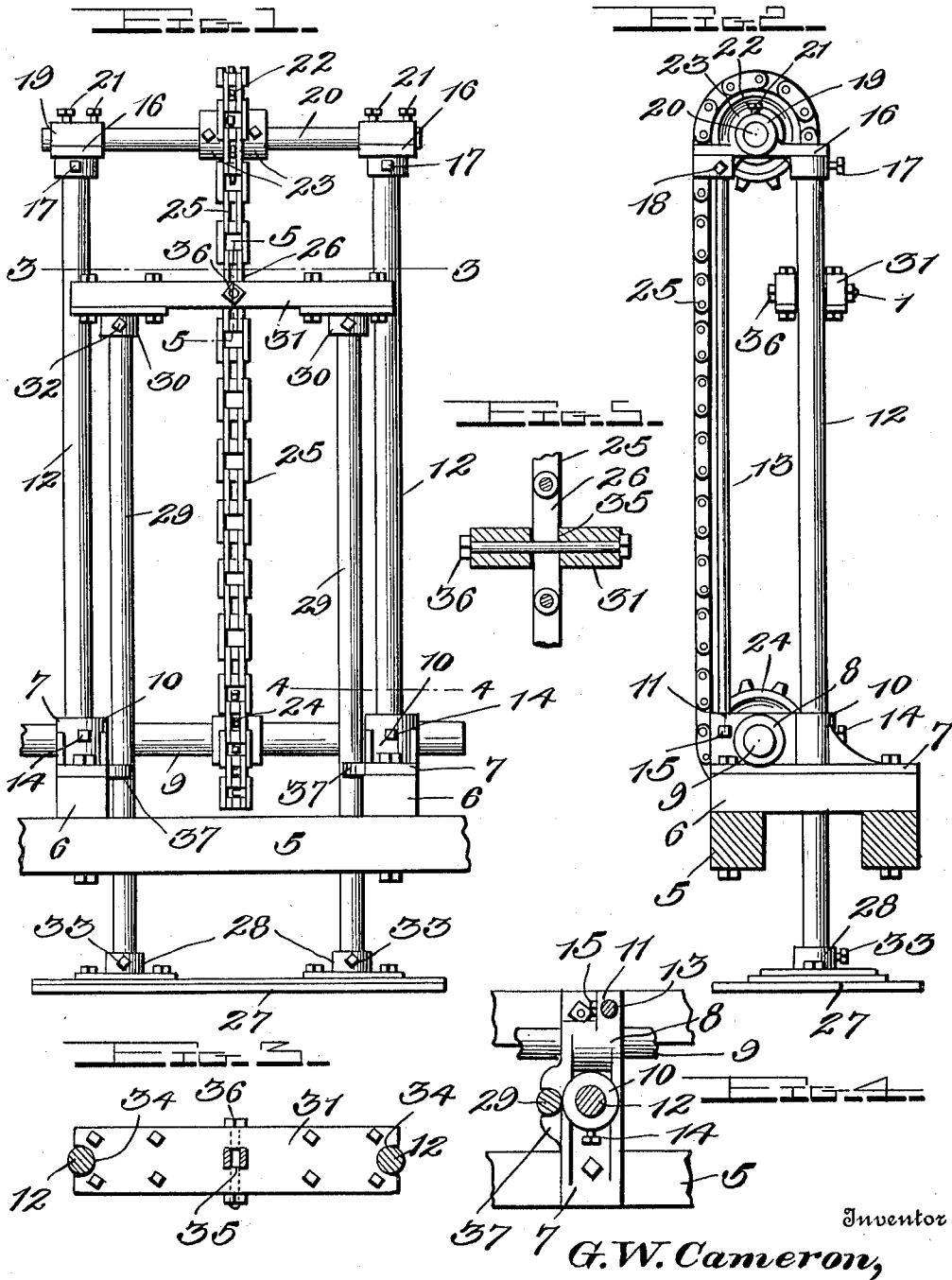


G. W. CAMERON.
 PLUNGER FOR BALING PRESSES.
 APPLICATION FILED JUNE 29, 1912.

1,048,650.

Patented Dec. 31, 1912.



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GEORGE W. CAMERON, OF HONDO, TEXAS.

PLUNGER FOR BALING-PRESSES.

1,048,650.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, GEORGE W. CAMERON, a citizen of the United States, residing at Hondo, in the county of Medina and State of Texas, have invented certain new and useful Improvements in Plungers for Baling-Presses, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to baling presses of that character commonly used for baling cotton, hay and similar products, and the invention has for its primary object to provide means for mounting and actuating the
15 ram or plunger which reciprocates in the baling chamber.

Another object of the invention resides in the provision of upright guide members, an endless chain arranged between said
20 guide members, a traveling bar engaging said guide members to which the ram is rigidly connected, and means for securing the bar to said chain.

Still another object of the invention is to
25 provide a device of the above character which consists of comparatively few elements of simple construction thereby rendering the same durable and efficient in operation, and which may be manufactured
30 at comparatively small cost.

With the above and other objects in view as will become apparent as the description proceeds, the invention consists in certain constructions, combinations and arrange-
35 ments of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in
40 which—

Figure 1 is a front elevation of the ram or plunger which is arranged above the baling chamber illustrating the manner of supporting and operating the same in accordance
45 with the present invention; Fig. 2 is a side elevation thereof; Fig. 3 is a section taken on the line 3—3 of Fig. 1; Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 1; and Fig. 5 is an enlarged detail section
50 taken on the line 5—5 of Fig. 1.

Corresponding and like parts are referred to in the following description and designated in the accompanying drawing by like reference characters.

55 Referring in detail to the drawing 5 designates the horizontal beams upon which the

transversely disposed sill bars 6 are mounted and secured. Beneath the beams 5 the usual baling chamber, (not shown) is arranged to receive the plunger or ram. Upon the sills
60 6 the supporting members 7 are arranged. These supporting members are provided with journal boxes 8 to receive the ends of the horizontal shaft 9, which is driven from any suitable source of power. These sup-
65 porting members are also provided upon their opposite ends with sleeves or sockets 10 and 11, respectively. The sockets 10 receive the lower ends of the upright guide rods 12 while the sockets 11 receive the ends
70 of the rear supporting rods 13. Set screws 14 and 15, respectively, are threaded in the sills of the sockets or sleeves for engagement with the rods 12 and 13, to hold the same against turning or rotative movement.
75

The upper ends of the rods 12 and 13 are adapted to be received in sleeves or sockets provided upon the castings 16 and are held therein by means of the set screws 17 and 18,
80 respectively. These castings are also provided with boxings 19 to receive the ends of a horizontal rod or shaft 20 which is rigidly secured in said boxings by means of the set screws 21.

Upon the stationary shaft 20 a sprocket
85 wheel 22 is loosely mounted and is held against longitudinal movement thereon by means of the collars 23 which are rigidly fixed upon said shaft. The lower drive shaft 9 has a similar sprocket wheel 24
90 keyed thereon. These sprocket wheels are traversed by an endless chain 25 which is provided at the proper point in its length with an elongated link 26, the purpose of which will be fully explained as the de-
95 scription proceeds.

The plunger head or ram proper 27 is provided adjacent its opposite ends with socket members 28 to receive the lower ends of the parallel rods 29. The upper ends of
100 these rods are disposed in similar socket members 30 which are secured to the under side of a vertically moving cross head 31. The upper and lower ends of the rods 29 are rigidly secured in the sockets 30 and 28,
105 respectively, by means of the set screws 32 and 33 respectively. The ends of the cross head 31 are grooved or recessed as at 34 to receive the cylindrical rods 12 upon which said cross head moves. The cross head is
110 also provided with a central slot 35 which is adapted to receive the elongated link 26 of

the chain 25. A bolt 36 is disposed through the cross head and said link whereby the cross head is securely held upon the chain for engagement therewith. The supporting members 7 are provided with inwardly extending flanges 37 which are grooved or recessed to receive the rods 29, thereby providing lower guide members for said rods.

From the above description the operation of the device will be obvious. Upon the rotation of the shaft 9, the chain 25 is moved to move the cross head 31 vertically between the rods 12. When the plunger or ram has been forced downward into the baling chamber and the material therein has been compressed, the rotation of the shaft 9 is reversed by means of suitable mechanism, and the cross head moved upwardly, the same sliding freely upon the guide rods 12. In this manner a reciprocating movement is imparted to the cross head, and the same is properly guided into the baling chamber, above which the cross head is disposed at the limit of its upward stroke. The manner of mounting and guiding the cross head eliminates all possibility of lateral shifting movement of the same. Owing to the manner of actuating the ram and connecting the cross head to the chain, said ram may be easily and quickly removed and the cross head repaired or replaced by a new one, whenever necessary.

A baling plunger mounted and actuated in the manner above disclosed, is extremely reliable and efficient in operation and may be actuated at the expenditure of a mini-

um amount of power. Owing to the simple construction of the device, it will be obvious that the same can be manufactured at very small cost and is also highly durable in practical use.

While I have shown and described the preferred form and arrangement of the several elements, it will be understood that the invention is susceptible of considerable modification, without departing from the essential features or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed is:

In a reciprocating plunger for baling presses, spaced supports, upright guide rods fixed at their lower ends in the supports, a cross head arranged between and movable upon the guide rods, a plunger head, rods connecting the plunger head to the cross head, said supports being provided with flanges engaging said connecting rods and serving as guides therefor, a stationary shaft mounted upon the upper ends of the guide rods, a sprocket wheel loosely mounted on said shaft, a lower drive shaft, a sprocket wheel keyed thereon, an endless chain traversing said sprocket wheels, and means securing the cross head to said chain.

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

GEORGE W. CAMERON.

Witnesses:

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