

(No Model.)

2 Sheets—Sheet 1.

J. S. TUTTLE.

FEED ATTACHMENT FOR BALING PRESSES.

No. 521,193.

Patented June 12, 1894.

FIG. 4.

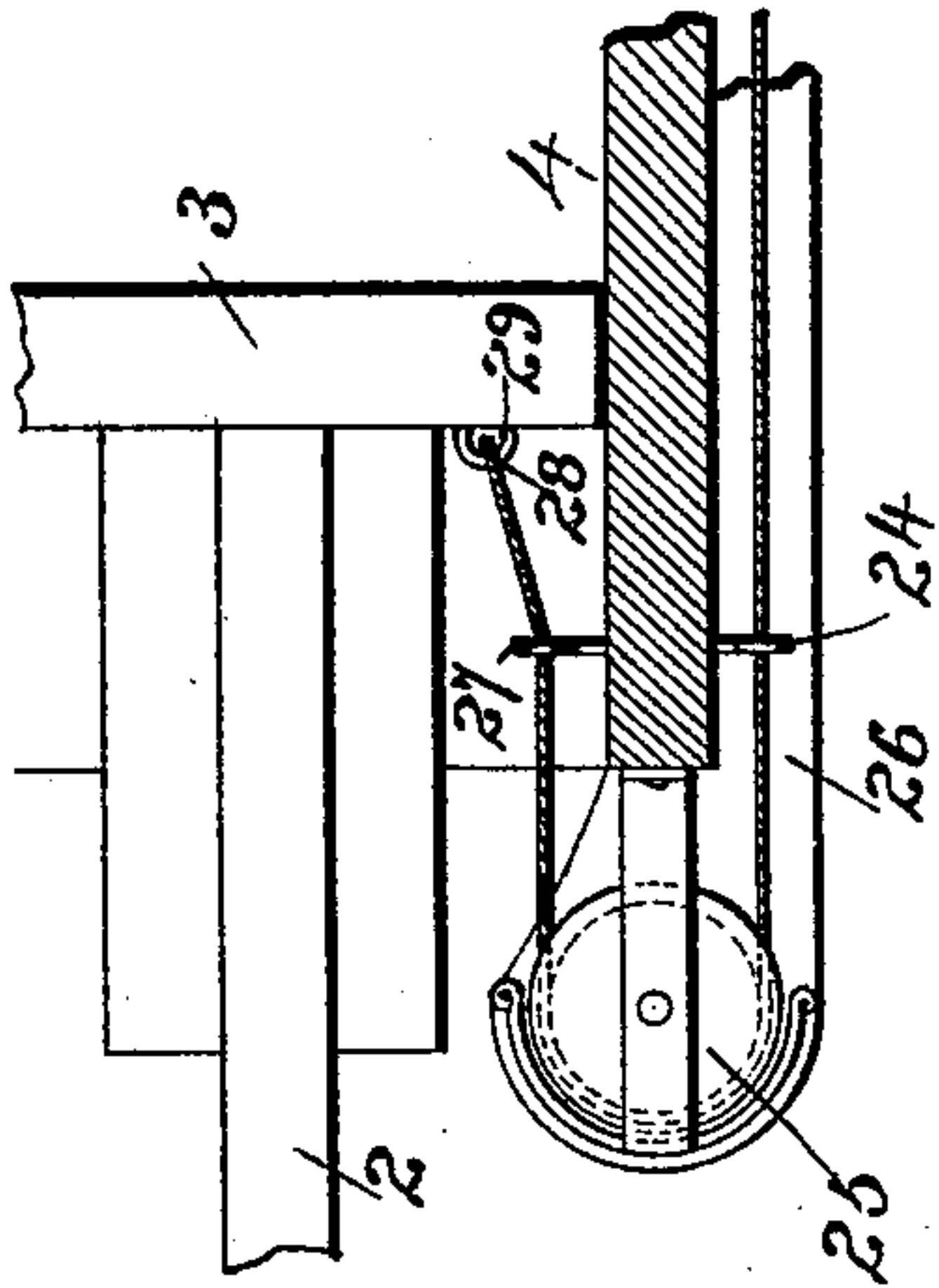
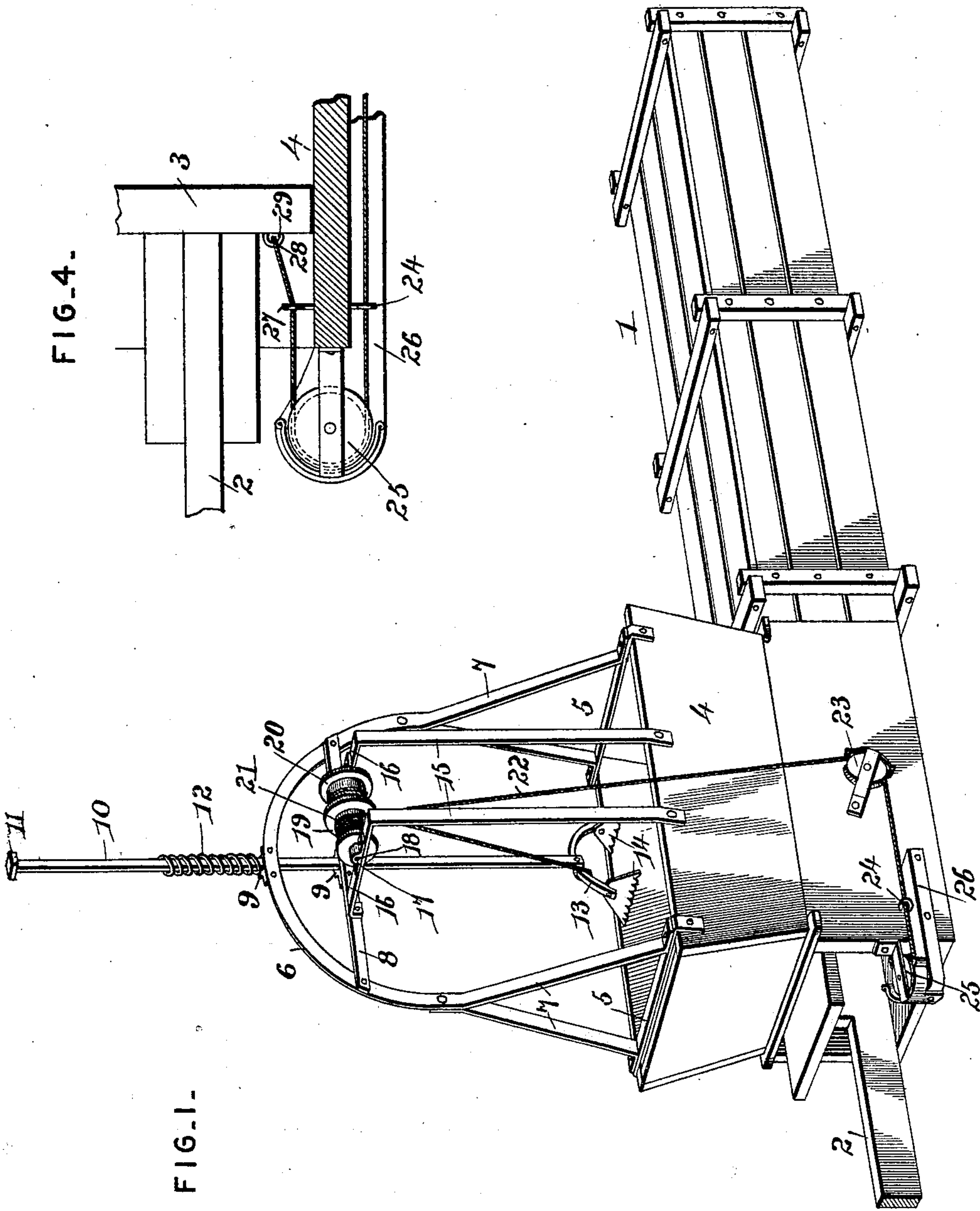


FIG. 1.



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Witnesses:

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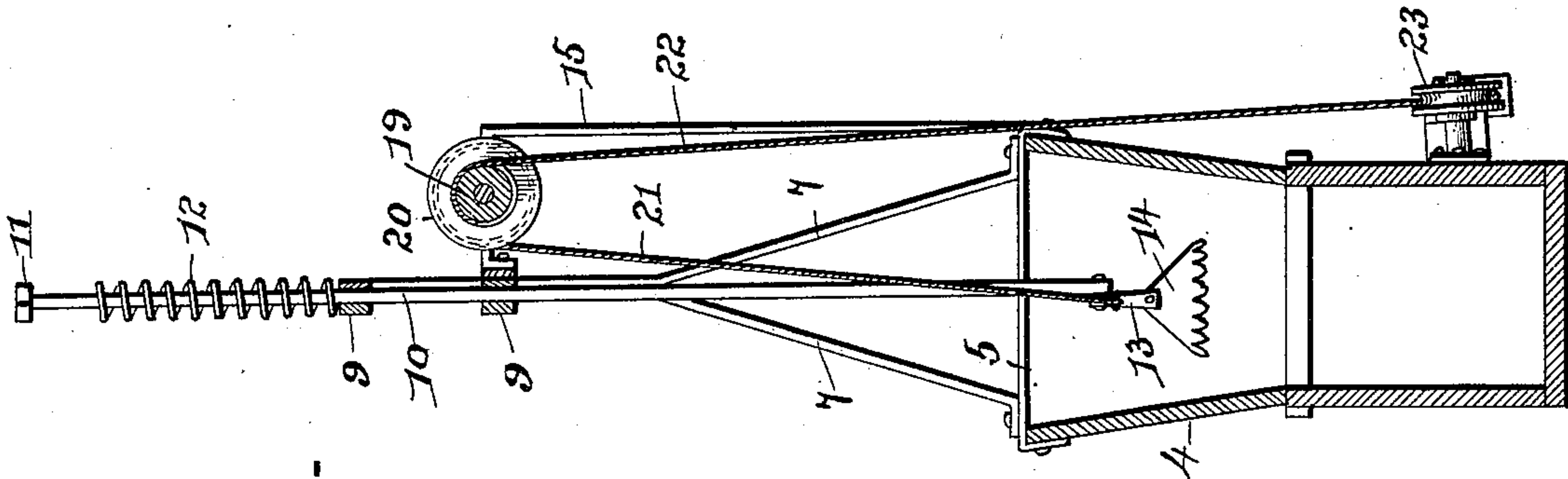


FIG. 2 -

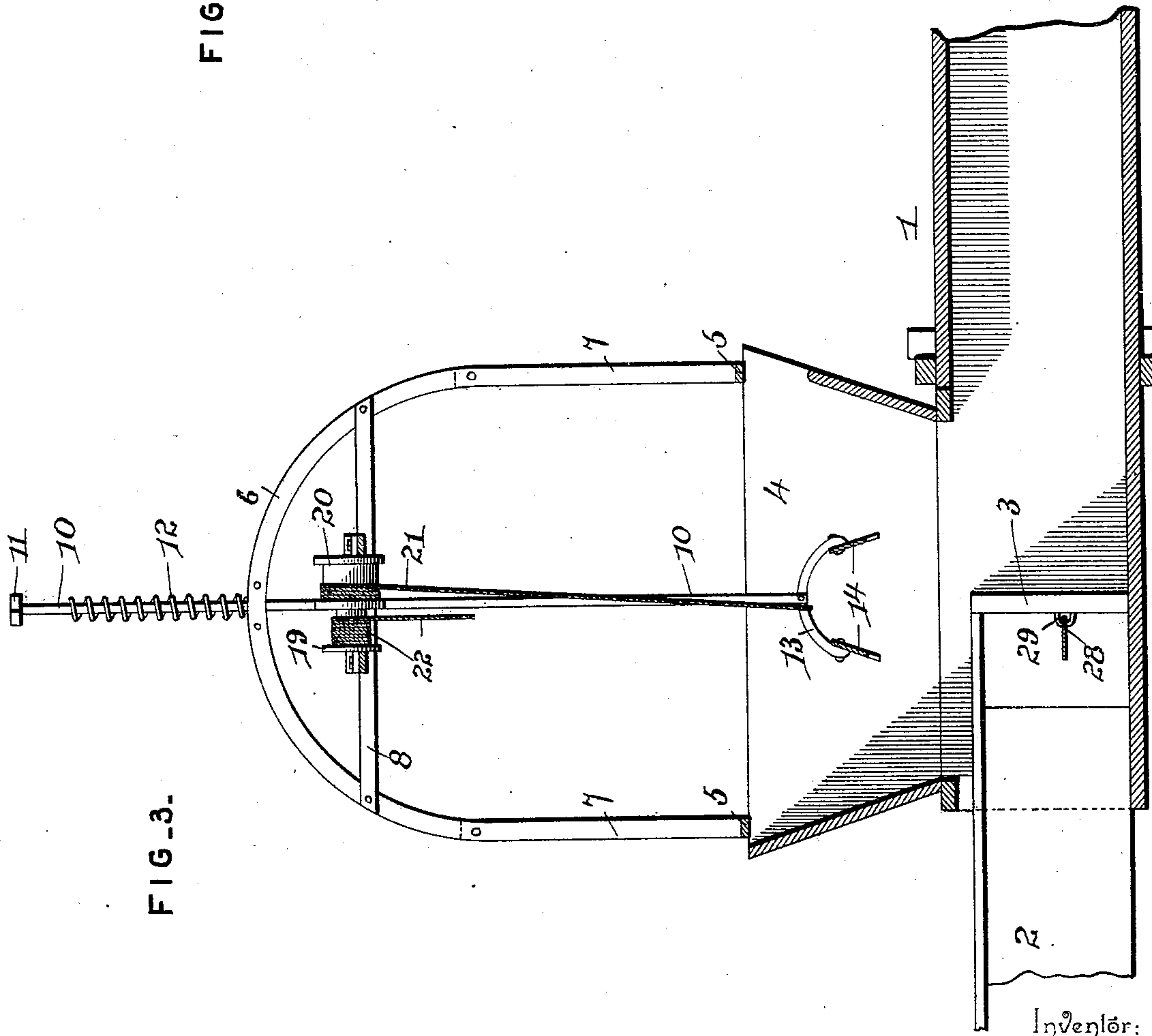


FIG. 3 -

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UNITED STATES PATENT OFFICE.

JOSIAH S. TUTTLE, OF BURNS, KANSAS.

FEED ATTACHMENT FOR BALING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 521,193, dated June 12, 1894.

Application filed May 31, 1893. Serial No. 476,124. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH S. TUTTLE, a citizen of the United States, residing at Burns, in the county of Marion and State of Kansas, have invented a new and useful Feed Attachment for Baling-Presses, of which the following is a specification.

My invention relates to improvements in baling presses, especially to that class for baling hay, and has reference more particularly to a feed attachment for the same.

The objects of my invention are to provide an attachment for this class of presses, the same being of cheap and simple construction and designed to positively feed the hay to the baling chamber in advance of the plunger and at each retraction thereof, the said attachment being operated by the movements of the plunger.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a baling press, the plunger being broken away, the said press being provided with an attachment embodying my invention. Fig. 2 is a transverse vertical sectional view of the press and attachment. Fig. 3 is a longitudinal vertical sectional view. Fig. 4 is a horizontal sectional view of the front end of one wall of the baling chamber.

Like numerals of reference indicate like parts in all the figures of the drawings.

For the purpose of illustration I have shown my attachment in connection with an ordinary baling-press 1, the same having mounted for movement therein an ordinary plunger 2 having a head 3. The chamber is provided upon its upper side with a feed-opening near its front end, and over this opening there is mounted a hopper 4, the same being of ordinary construction and of such formation and location as to permit of a dropping of the hay therefrom into the chamber, it being understood that the hay is tossed indiscriminately into the hopper by the attendant. Located upon the opposite ends of the hopper and extending thereacross are transverse strips 5, and each strip has secured at one end

one end of an arch 6. This arch 6 is above the longitudinal center of the hopper and has its terminals deflected about midway their length so as to be disposed toward and secured to the ends of the strips 5. Braces 7 are secured to the opposite ends of the strips 5, and their upper ends are secured to the terminals of the arch at the points of deflection. The arch is provided with a transverse brace 8 which connects the terminals above the bends, and the arch as well as the brace is provided at its center with a vertical eye 9, the eyes of the arch and the brace aligning. A vertical plunger rod 10 is mounted for reciprocation in the eyes 9, the said plunger rod terminating at its upper end in a head 11 and between said head and the uppermost eye there is interposed a coiled spring 12. The head serves as a stop, for the spring to bear against in the downward movement of the rod. The lower end of the rod has secured thereto a semicircular arched head 13, and to the terminals of this head transverse forks 14 are secured.

A pair of standards 15 rise from one side of the hopper at each side of the center of the arch, are secured to said hopper at their lower ends, and at a point in horizontal alignment with the transverse brace 8 of said arch are inwardly bent forming horizontal portions 16, whose ends are secured to said transverse brace. Opposite bearings 17 are located in the horizontal portions of the said standards 15, and a shaft 18 is journaled in said bearings and longitudinally disposed with relation to the hopper. This shaft accommodates a small drum 19 and a larger drum 20, the same being formed integral or rigid with each other so as to move together. A rope 21 is coiled about the large drum, has one terminal secured thereto, and its remaining terminal secured to the lower end of the rod 10. A rope 22 is secured at one end and coiled about the small drum, extends down to one side of the baling press and under a guide-pulley 23 located at said side of the baling chamber to the front, through a guide-eye 24, and around a second pulley 25, the latter being horizontally disposed and supported upon the brake-block 26. Continuing around the pulley 25, the rope passes through

a guide-eye 27 at the inner side of the baling chamber, and is connected as at 28 to an eye 29 with which the rear side of the plunger head is provided.

5 This completes the construction of the attachment, and the operation thereof is as follows:—As the plunger and its head are retracted by any suitable operating mechanism (not shown and forming no part of my invention) the rod is, by reason of the relaxation
10 of the operating-rope 22, permitted to drop suddenly and with force, the rod-operating cable or rope being paid off from the large drum. The drop of the rod 10 causes the
15 forks to act upon the hay located in the hopper, which it will be understood is thrown therein from time to time, and the said hay is tamped into the baling chamber in the path of the plunger head. A reverse movement of the
20 plunger of course moves the hay toward the platen or head of the press and at the same time carries with it the operating rope 22, which, as will be obvious, causes the drums to revolve in such way as to pay off the rope
25 22 and wind the rope 21, thus elevating the rod 10 from out the hopper and the path of the plunger. As soon as the rod has reached its highest point and the plunger head has operated upon the hay, the plunger is quickly
30 retracted, so that as heretofore seen the operating rope being suddenly relaxed permits the rod to suddenly drop, thus recharging the baling chamber. The jar of the rod as caused by its movement being suddenly arrested is
35 absorbed to a great extent by the coiled spring heretofore mentioned, for which purpose said spring is employed.

My attachment, it will be observed, is capable of being applied to any of the ordinary
40 presses, and I therefore do not limit the invention to use in connection with the press herein shown or to any particular style of press, and hold that I may make such variations in the attachment as will adapt it for
45 that style of press to which it is applied, or shall otherwise alter the details of the invention without departing from the spirit of the same or going outside of the scope.

Having described my invention, what I
50 claim is—

1. In combination with a baling-chamber or press-box and its plunger, a hopper supported above the feed-opening of the chamber, a framework arranged upon the hopper,
55 a reciprocating rod 10 carrying the tamping head and provided with a stop and mounted for movement in the framework, a spring 12 coiled around the rod between the head and rod-support, and mechanism connected respectively to the rod and plunger to operate
60 the tamping head, substantially as specified.

2. In combination with a baling-chamber or press-box and its plunger, a hopper supported above the feed-opening of the chamber, a framework arranged upon the hopper,
65 a reciprocating rod 10 having a stop and car-

rying the tamping head and mounted for movement in bearings in the framework, said head being arched as shown and having at its ends the transverse forks, a spring 12
70 coiled around the rod and interposed between the stop and bearing of the rod, and mechanism connected respectively to the rod and plunger to operate the tamping head, substantially as specified. 75

3. In combination with a baling-chamber or press-box and its plunger, a hopper supported above the feed-opening of the chamber, a framework arranged upon the hopper and having a bearing, a reciprocating rod 10
80 located therein and provided with a stop and carrying the tamping head, said head being arched, as shown, and having at its ends the transverse forks, a spring 12 coiled around the rod and interposed between the stop of
85 the rod and its bearing, and two drums rigidly connected, and ropes for the drums, the rope of one drum being connected to the rod, and the rope of the other drum having connection with the plunger of the press, substantially as specified. 90

4. The combination with a baling press and its plunger, of a hopper supported upon the press and provided with eyes, a rod arranged for vertical movement in the eyes and having
95 a tamping head, a pair of drums supported at one side of the rod, a rope secured to one of the drums and to said rod, and an operating rope secured to the remaining drum and to the plunger head, and intermediate
100 guides for said operating rope, substantially as specified.

5. In a baling press, the combination with a baling chamber and its plunger, of a hopper arranged over the opening in the chamber,
105 transverse strips supported upon the hopper, an inverted U-shaped arch having its terminals deflected and secured to the ends of the strips, inclined braces secured to the terminals at their points of deflection and also to
110 the ends of the strips, a transverse brace for the arch, there being vertically aligning eyes in the brace, and the arch, a rod mounted for reciprocation in said eyes and terminating at its upper end in a head, a coiled spring ar-
115 ranged upon the rod between the upper eye and the head, an arched head secured to the lower end of the rod, forks connected to the ends of the arched head, a pair of vertical standards secured to the sides of the hopper
120 and inwardly bent and secured to the transverse brace of the arch, bearings in the horizontal portions of said standard, a shaft journaled in the bearings, a large and small drum rigid with each other mounted on the shaft,
125 a rope secured to the large drum and to the lower end of the rod, a pulley 23 secured to the side of the baling chamber, a horizontally disposed pulley 25 located at one end of the baling chamber, a guide-eye 24 between
130 the same and the pulley 23, an inner eye, an eye upon the plunger head, and an operating

rope wound upon and secured to the smaller
drum, passed under the pulley 23, through
the guide-eye 24, around the pulley 25, and
through the inner guide-eye and secured to
5 the eye of the plunger head, substantially as
specified.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in
the presence of two witnesses.

JOSIAH S. TUTTLE.

Witnesses:

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A. C. DARNOLD.