

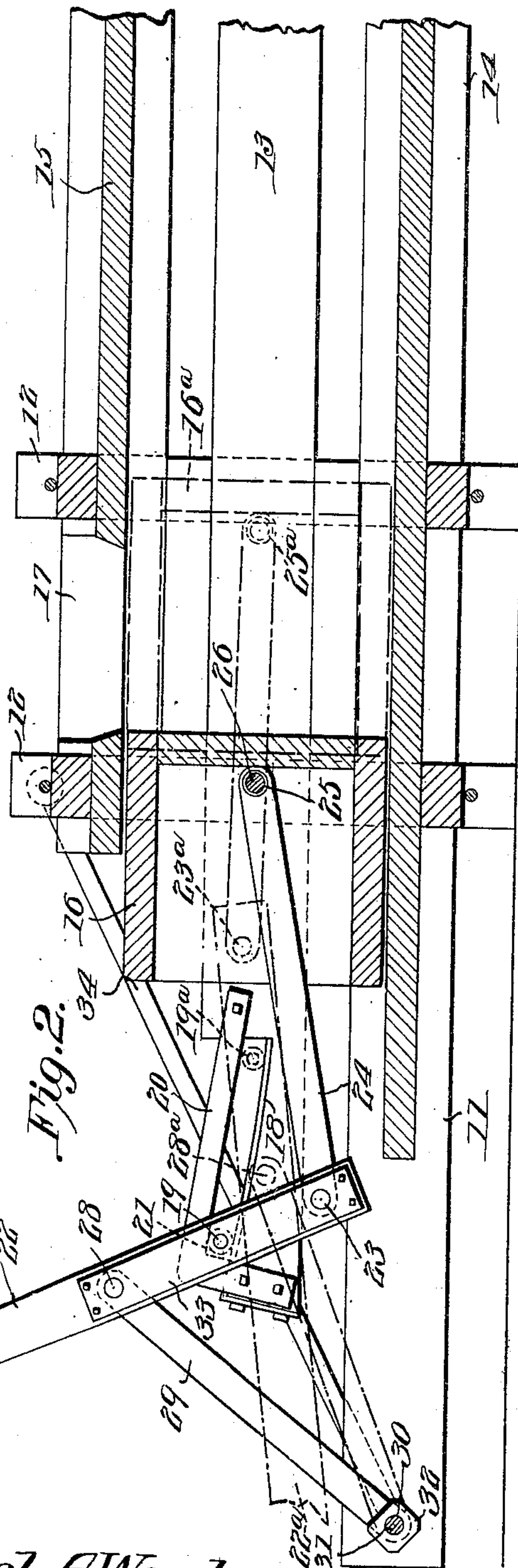
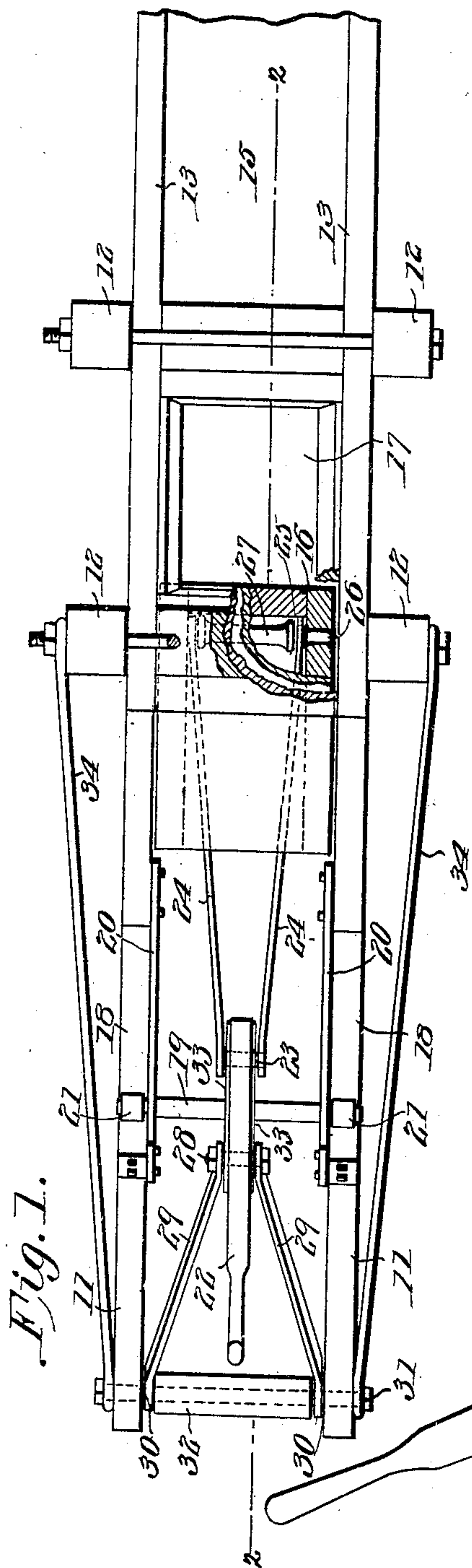
No. 832,286.

PATENTED OCT. 2, 1906.

L. A. WOODWARD.

BALING PRESS.

APPLICATION FILED AUG. 2, 1905.



Witnesses

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LEMUEL A. WOODWARD, OF SALADO, TEXAS.

BALING-PRESS.

No. 832,286.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed August 2, 1905. Serial No. 272,420.

To all whom it may concern:

Be it known that I, LEMUEL A. WOODWARD, a citizen of the United States, residing at Salado, in the county of Bell and State of Texas, have invented a new and useful Baling-Press, of which the following is a specification.

This invention relates to baling-presses, and especially to that class of presses known as "bale-ejectors."

The object of the invention is to provide a lever and connection for operating the plunger and which embodies new and improved features, simplicity, durability, and effectiveness.

A further object of the invention is to provide a press operated by a lever mounted on a sliding fulcrum in such manner that the leverage increases directly as the resistance.

A further object of the invention is to provide a press operated by a lever wherein when the lever is at the extreme of its movement the pivot-points have passed the fulcrum-center to hold the plunger from a backward movement until the lever is manually returned.

It is well known that it is often desirable to hold the plunger of a press at the extreme of its inward or compressing stroke while the bale is being tied or for other purposes.

It is an object of this invention to provide links connecting the lever and plunger so arranged that when the pivot-points have passed the fulcrum-center the plunger will be held at its point of greatest pressure until the pressure is intentionally released.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit of the invention or sacrificing any of its advantages.

In the drawings thus employed, Figure 1 is a top plan view of the improved baling-press with a portion broken away to show the manner of connecting the plunger. Fig. 2 is a longitudinal vertical sectional view of the baling-press, taken on line 2 2 of Fig. 1, showing the plunger at its outward extreme and in outline at its inward extreme.

Like characters of reference indicate corre-

sponding parts in both of the figures of the drawings.

In its preferred embodiment the baling-press forming the subject-matter of this application comprises the press-box constructed in the usual manner with the sills 11, uprights 12, sides 13, bottom 14, and top 15. Within the press-box is mounted the reciprocating plunger 16, capable of a reciprocatory motion beneath the feed-opening 17.

Upon the base of the press and between the press-box and the end of the sills 11 are mounted guideways 18 in plane with the sides of the press, but inclined to the sills and with the lower end adjacent the press-box. Transversely of the press is mounted the fulcrum-bar 19, with its opposite ends bearing and movable upon the guideways 18 and with keepers 20 above the ways and disposed to hold the fulcrum-bar upon the ways. For ease of movement the fulcrum-bar 19 may be provided at its ends with rollers 21, bearing upon the ways, and intermediate its ends is mounted the lever 22. The lower end of the lever 22 is extended below the fulcrum 19, and at 23, a point adjacent its extremity, are pivoted the links 24, also connected pivotally with the plunger 16, as at 25, in any approved manner, as by the pin 26 extending transversely through the plunger, and with a spacing-sleeve 27 upon the pin and between the links.

At 28, a point on lever 22 above and approximately the same distance from the fulcrum as the pivot 23, are pivoted the links 29, having their opposite ends pivoted to the sills at 30 in any approved manner, as by the pin 31 extending transversely through the sills and with the spacing-sleeve 32 thereon and between the links. The lever 22 may be provided with the wear-plates 33, secured to the sides of the lever between the lever and the links 24 and 29, and the rigidity of the extended sills may be increased by any approved system of braces, as 34, secured at one end to the uprights 12 and at the other to the pivot-pin 31.

With the parts assembled as shown the feed-opening 17 is open and ready to receive any material to be baled, as hay, straw, cotton, excelsior, shavings, or other like substance. The material is fed into the opening 17 in any usual manner, as by the use of a pitchfork, until the desired amount has been placed therein. After the material has been fed

into the opening the plunger 16 is moved to force the material into the press-box by moving the lever 22 to the position 22^a. The depression of the upper end of the lever will
 5 cause the fulcrum to travel along the ways 18 to the position 19^a because of the position of the links 29. As the fulcrum 19 advances the pivot-point 23 advances by reason of the angular movement of the lever and the shifting of the fulcrum to the point 25^a, carrying
 10 with it the plunger 16 to the position 16^a and across and beyond the opening 17. By the continued repetition of the operation as above described the compressed material by
 15 reason of the friction of the press-box offers more and more resistance to the passage of the bale until a bale of the desired density has been secured and all in the usual and well-known manner. When the desired
 20 amount of material has been compressed to the approved degree, the usual followers are employed and the lever 22 allowed to remain in its depressed position while the bale is being tied in the customary manner. It will
 25 be noted that when the lever 22 is depressed to the position 22^a the pivot-point 23^a is slightly above and the point 28^a slightly below a line passing through the fulcrum 19^a and parallel with the sills, so that the lever
 30 will remain in the depressed position 22^a and the plunger in the advanced position 16^a until intentionally released by manually raising the lever.

It is to be noted that the inclined ways for
 35 the fulcrum-shaft 19 are produced by extending the sides 13 and reducing them to produce inclined upper edges, said edges being covered by wear-strips which overlap and are secured to the ends of the sides 13

and constitute the ways. The keepers 20 40 are preferably in the form of angular strips secured at their ends to the strips 13 and extending parallel with the ways.

Having thus described the invention, what is claimed is— 45

1. In a baling-press, the combination with a bale-box having sides projecting from one end thereof, said projecting portion provided with inclined edges; of a fulcrum-shaft, rollers on the ends thereof and mounted on the
 50 inclined edges, keepers for holding the rollers upon said edges, a lever mounted between its ends upon said fulcrum-shaft, a plunger, a fixed pivot-pin, links pivoted on the lever at one side of its fulcrum and diverging toward 55 and mounted upon the fixed pivot-pin, and links pivoted to the lever at the other side of its fulcrum and diverging toward and pivoted to the plunger.

2. In a baling-press, the combination with 60 a bale-box, a plunger therein, and a fixed pivot-pin connected to the box; of inclined ways integral with the sides of the box, wear-strips thereon, angular keepers disposed above and spaced from the ways, a fulcrum- 65 shaft, rollers upon the ends thereof and between the ways and keepers, a lever mounted between its ends on the fulcrum-shaft, and links connecting the lever at opposite sides of its fulcrum with the fixed pivot-pin and the 70 plunger, respectively.

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

LEMUEL A. WOODWARD.

Witnesses:

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