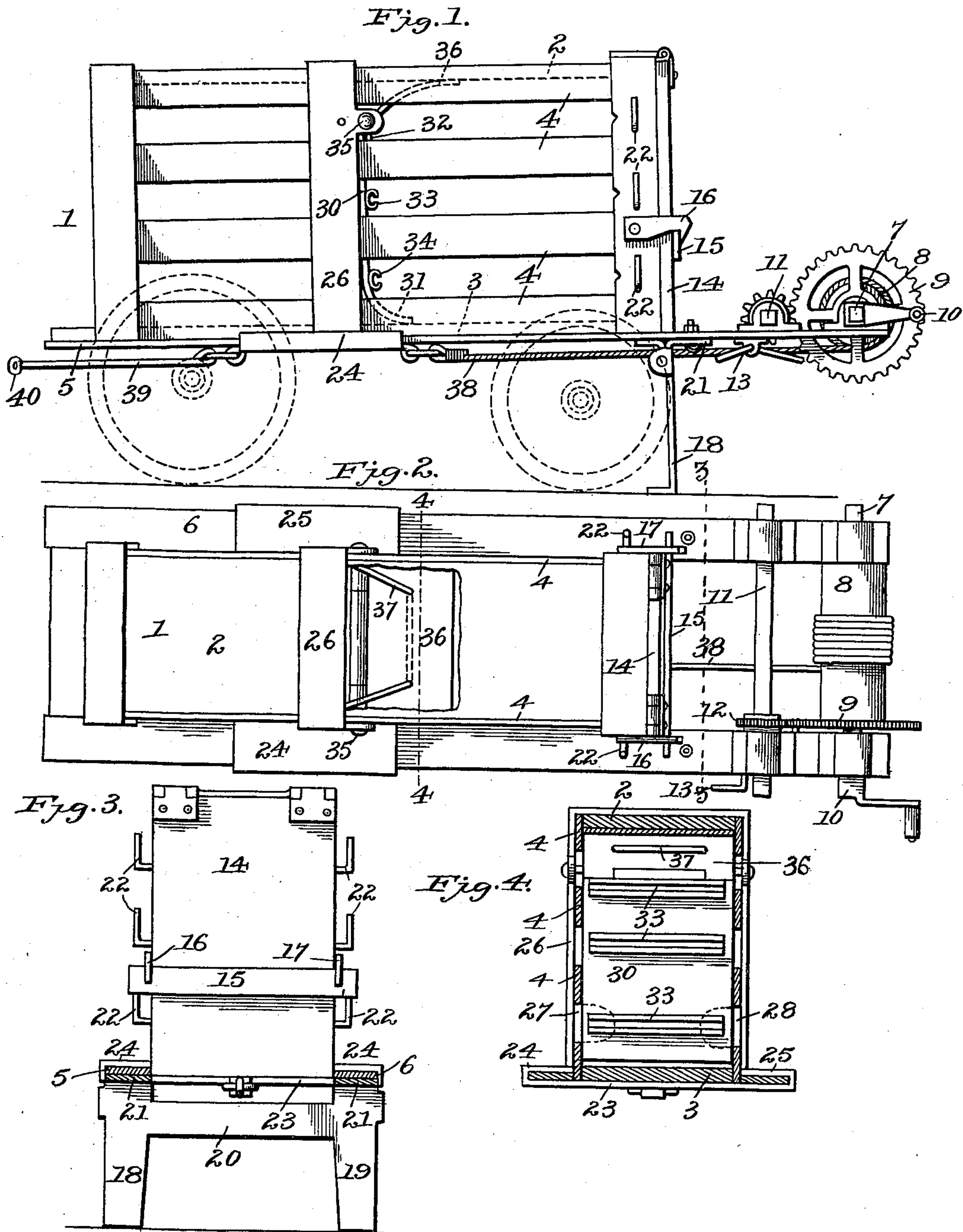


(No Model.)

N. H. HAWK.
HAY PRESS.

No. 587,000.

Patented July 27, 1897.



WITNESSES

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UNITED STATES PATENT OFFICE.

NATHANIEL H. HAWK, OF BLUE RIDGE, TEXAS.

HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 587,000, dated July 27, 1897.

Application filed August 14, 1896. Serial No. 602,766. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL H. HAWK, a citizen of the United States, residing at Blue Ridge, in the county of Collin and State of Texas, have invented certain new and useful Improvements in Hay-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to hay-baling presses.

My object is to provide a baling-press of improved construction which will be adapted to bale the hay in a superior manner and one which can be easily operated.

A further object is to provide a novel form of baling-press which will be readily transportable and owing to its peculiar construction can be manipulated by hand, a still further object being to provide such an improved baling-press that the wire ties can be wrapped around the bale after its formation easily and quickly and the bale can be readily removed from the press after it has been wired.

Having these objects in view, my invention consists of a baling-press comprising certain novel features and combinations appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of my improved baling-press, dotted lines representing the positions of the parts when the press is in condition to be transported; Fig. 2, a plan view; Fig. 3, a cross-section taken on the line 3 3 of Fig. 2. Fig. 4 is a cross-section on line 4 4 of Fig. 2.

The numeral 1 designates the body of the plunger-box, which is provided with a solid top 2 and solid bottom 3, but its sides 4 are formed of separated strips of steel, and the lower ones of these strips are bent into outwardly-extending tracks 5 and 6. These tracks extend forwardly and are provided with journals for the shaft 7, which carries a winding-drum 8 and a gear 9. The ends of said shaft are square for the reception of a removable handle 10.

The numeral 11 designates a second or auxiliary shaft, which is also square for the greater portion of its length, being journaled in bearings connected to the forwardly-extending portions of the trucks, and on this shaft there is a sliding pinion 12. The han-

dle is adapted to fit the squared ends of this shaft as well as the main shaft.

At 13 is shown a journaled crank-shaft which is adapted to lock with the large gear.

At the front end of the plunger-box there is located a hinged door 14, across which extends a bar 15, and 16 and 17 represent pivoted catches adapted to engage with the projecting ends of this bar, whereby it is held locked.

The numerals 18 and 19 designate hinged supporting-legs which are provided with suitable feet and are connected by a cross-bar 20. The upper ends of these legs are bent into portions 21, which abut on the tracks and may be bolted thereto, if desirable, when the legs are lowered. Ordinarily the hay-press is carried on a common farm-wagon truck, and when it is desired to use the press the wheels and forward axle of the truck are removed and the supporting-legs dropped, said supporting-legs being of such height as to hold the fore end of the press slightly higher than it was previously. The rear portion of the press remains connected to the rear axle of the truck. Thus it will be seen that the hay-press can be transported from place to place, as desirable, and when it is to be used by lowering the supporting-legs the whole press and the truck can be made solid. At one side of the plunger-box and at the front end thereof are located three upwardly-extending hooks 22, which are adapted for the reception of the spools that hold the wire used in baling.

The numeral 23 designates a slide which extends across the bottom of the plunger-box and is provided with lips 24 and 25, that run along on the top of the tracks. Formed integral with or connected to this slide is an upwardly-extending frame 26, which passes around the plunger-box.

The numerals 27 and 28 designate short integral projecting lugs which are secured to the upright portions of this frame.

My improved plunger is designated by the numeral 30, and it has a curved lower end 31, which extends toward the front of the machine. This plunger abuts on the lugs just described, and they prevent its free lower end from moving backwardly past the vertical position. Across the front face of the

plunger extend three parallel slotted tubes 32, 33, and 34, which receive the baling or tie wires, so that the same can be slid across the bale after its formation, but can be readily removed with the bale by being drawn through the slots. This plunger is hinged at its upper end on a spindle 35, which passes through the plunger-box and is connected to the slidable frame.

10 The numeral 36 designates a scraper which is hinged on the same spindle and has its upper end abutting against the top of the plunger-box, a spring 37 being employed to keep said scraper against the top of the box.

15 The numeral 38 designates a cable which is connected to the slide and the winding-drum, while 39 designates a section of cable that terminates in a handle 40 and is connected to the rear end of the slide, said latter cable being employed to draw back the slide and frame.

The press is used in the following manner: The front set of wheels and axle of the truck are first removed and the supporting-legs then lowered. A suitable quantity of hay is then forced into the press from the rear end thereof, the plunger being swung upward during this operation. The cranks are now turned and the plunger drawn toward the front end of the press as far as desirable. Further compression of the hay can now be had by slipping the handles off the main shaft and placing them on the auxiliary shaft, at the same time sliding the pinion on the latter to bring it in engagement with the cog-wheel, the locking crank-shaft meanwhile having been employed to engage with the gear and lock the winding-drum. The cranks are now turned, whereupon great power can be applied to the plunger and the bale brought to the requisite size and density. The mechanisms are then locked and the three baling or tie wires passed through the slotted tubes and fastened. The catches are now raised and the door opened. The cranks may be turned still farther, whereupon the bale will be ejected. The rope or cable 39 is next pulled back, whereupon the plunger and its frame, together with the scraper, are drawn to the rear of the plunger-box. It will be observed that owing to the curvature of the plunger and the free end of the scraper all the hay will be scraped from the top of the plunger-box, so that the latter does not become clogged at any time.

It is obvious that many slight and immaterial changes of construction might be resorted to without detracting from any of the advan-

tages of my invention, and it is to be understood, therefore, that I do not limit myself to the precise construction herein shown and described, but consider that I am entitled to all such variations as come within the spirit and scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a baling-press, the combination with a plunger-box, of a frame slidable in relation thereto, means for sliding the frame, and a plunger movable in the plunger-box and hinged to the frame so that it may be swung aside.

2. In a baling-press, the combination with a plunger-box, of a frame slidable in relation thereto, said frame being provided with inwardly-projecting lugs, means for moving said frame, and a plunger provided with a curved scraping lower end and hinged at its upper end to the frame and adapted to abut against the lugs.

3. In a baling-press, the combination with a plunger-box, of a frame slidable longitudinally in relation thereto, means for moving said frame, a plunger hinged to the frame and adapted to act as a scraper for the bottom of the box, and a scraper also hinged to the frame and sliding against the under side of the top of the plunger-box.

4. In a baling-press, the combination with a plunger-box, of a frame slidable longitudinally in relation thereto, means for moving said frame, a plunger hinged to the frame and adapted to act as a scraper for the bottom of the plunger-box, and a spring-pressed scraper hinged to the frame and bearing on the under side of the top of the plunger-box.

5. In a baling-press, the combination with a plunger-box, of a frame slidable longitudinally in relation thereto, means for moving said frame, a plunger provided with a curved lower end which acts as a scraper for the bottom of the plunger-box, said plunger having its upper end hinged to the upper end of the frame, parallel tubes extending transversely of the plunger and connected thereto, and a spring-pressed curved scraper hinged to the frame and pressing against the under side of the top of the plunger-box.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

NATHANIEL H. HAWK.

Witnesses:

EUGENE F. WORDEN,
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