(No Model.)

G. W. ELLIOTT.

MACHINE FOR PRESSING HAY, &c., FOR FUEL.

No. 346,470. Patented Aug. 3, 1886.

Fig. 1.

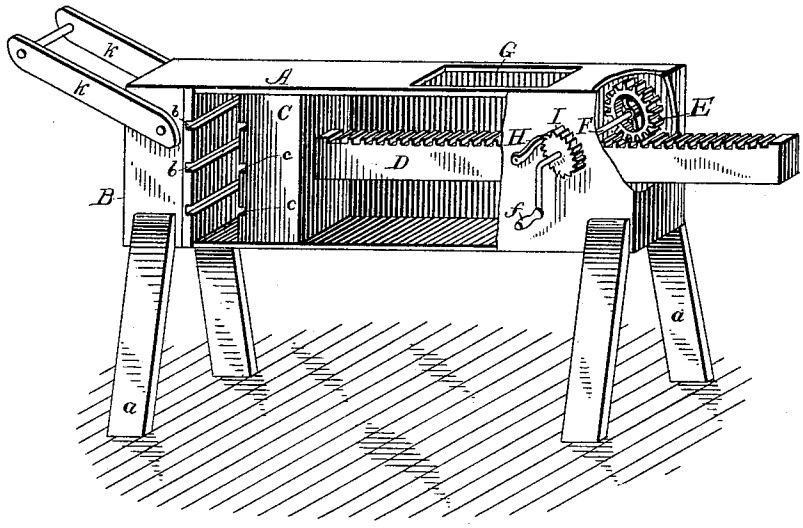


Fig. 2.

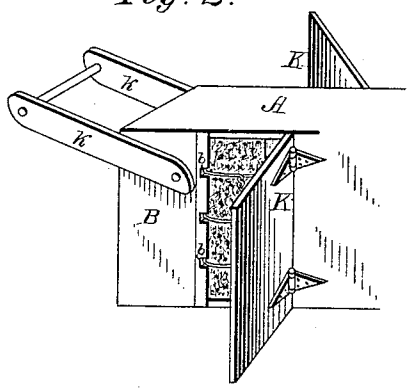
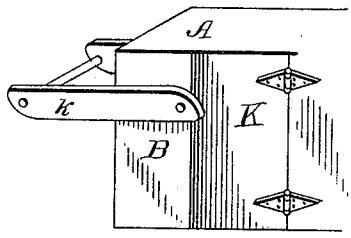


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. ELLIOTT, OF DE SMET, DAKOTA TERRITORY.

MACHINE FOR PRESSING HAY, &c., FOR FUEL.

SPECIFICATION forming part of Letters Patent No. 346,470, dated August 3, 1886.

Application filed December 18, 1885. Serial No. 186,065. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ELLIOTT, a citizen of the United States, residing at De Smet, in the county of Kingsbury and Territory of Dakota, have invented certain new and useful Improvements in Machines for Pressing Hay, &c., for Fuel, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a perspective view, partly in section, of a device embodying this invention. Fig. 2 is a detail in perspective showing a bale completed and ready for removal from the press. Fig. 3 is a detail in perspective showing how the doors are held closed over the baling-space.

This device belongs to that class of machines known as "hay-presses," but more especially to that portion of said class which are designed to prepare hay, straw, or any like or analogous material into suitable bundles or packages for use as fuel in stoves; and the novelty in the present instance consists in the construction of the several parts and in their general combination, all as will now be more fully set out and explained, reference being had to the accompanying drawings.

In the drawings, A denotes a rectangular box, usually about three and a half feet long, four inches wide, and ten inches deep on the inside; but these proportions can of course be varied at pleasure, and the box may be made of any desired shape, size, and proportions. This box is supported by legs *a* at each end, or in any suitable way, and can be readily moved, as may be necessary from time to time, into convenient nearness to the body of hay, straw, or other material which is to be baled. Inside this box, at one end, preferably at the left hand, is fixed the block B, having horizontal grooves *b*—two, three, or more—across its face. Of like size is the movable block or platen C, which has also corresponding horizontal grooves, *c*, in its face toward the block B. This platen is usually intended to be of such size as to fit quite snugly inside the box, and yet be adapted to be moved easily back and forth. This movement is accomplished by means of the rack-bar D, which at its fore—that is, the left—end is fixed in or to the back of the platen, and extends rearwardly, or to the right out of the box. On the rack-bar the pinion E in the rear part of the box can be worked by means of handle *f* at the end of the shaft F on which the pinion is fixed. This shaft F is journaled in the opposite sides of the box, and its handle *f* is on the outside, convenient for grasp by the operator's right hand. By this means the rack-bar can be so moved backward that the platen C will be brought nearly to the rear end of the box. When the platen is in this position, the hay, straw, or other material can be readily placed inside through the opening G in the upper side of the box, and in the space between the platen and the block B, and when this is filled, by turning the handle *f*, the platen is forced along, and forces forward this material until it is tightly compressed against the block B, and between it and the platen C. The pawl H, operating on the ratchet I, fixed on the outside of the box to the shaft F, serves to hold the platen firmly in position. At this moment the doors K—one on each side and contiguous to the space now occupied by the pressed bale or bundle—are opened by turning up the bars *k* at the fore part of the machine, which movement throws down the lower ends of the bars *k*, and thus moves them away from the edges of the doors on each side, and allows them to be swung open. Then opportunity is afforded to insert wire, cord, or rope on the horizontal grooves *b* and *c*. Thus the bale is encircled, and where these bands are made tight and secured the bundle or bale can be removed from its position in the box and the operation repeated. The bales or bundles thus made are of the right shape and size for use as stove-fuel.

The great advantages of this device are, that it is very compact, very strong, simple in structure, cheap, and portable. One man can easily operate it, and can rapidly bundle or bale a large quantity of material.

In the States and Territories where this class of fuel is used my device will be of great utility.

I am aware that, generally stated, it is not new to compress bales or bundles by means of a platen operated by a rack and pinion, and do not broadly claim any such mechanism; but

What I consider new, and desire to secure by Letters Patent, is—

1. A portable fuel-compressing baling-machine consisting of a rectangular box suitably

supported, and having side doors and bars for locking the same, a fixed head-block having horizontal grooves across its face, a platen horizontally grooved on its face and moved by rack and pinion longitudinally in said box, and a pawl and ratchet to hold said platen fixed at any point in its forward movement, and a filling-aperture in the upper side of said box, all constructed and combined as shown and described.

2. The longitudinal box A, supported on legs *a*, and having filling-aperture G toward its rear end, and side doors, K, near its front end, and provided with door-locking arms *k*, combined with rack-bar D, platen C, shaft F, handle *f*, pinion E, and ratchet I and pawl H, all combined and adapted to operate as described.

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

GEORGE W. ELLIOTT.

Witnesses:

E. H. CAUSE,

W. J. BARNET.