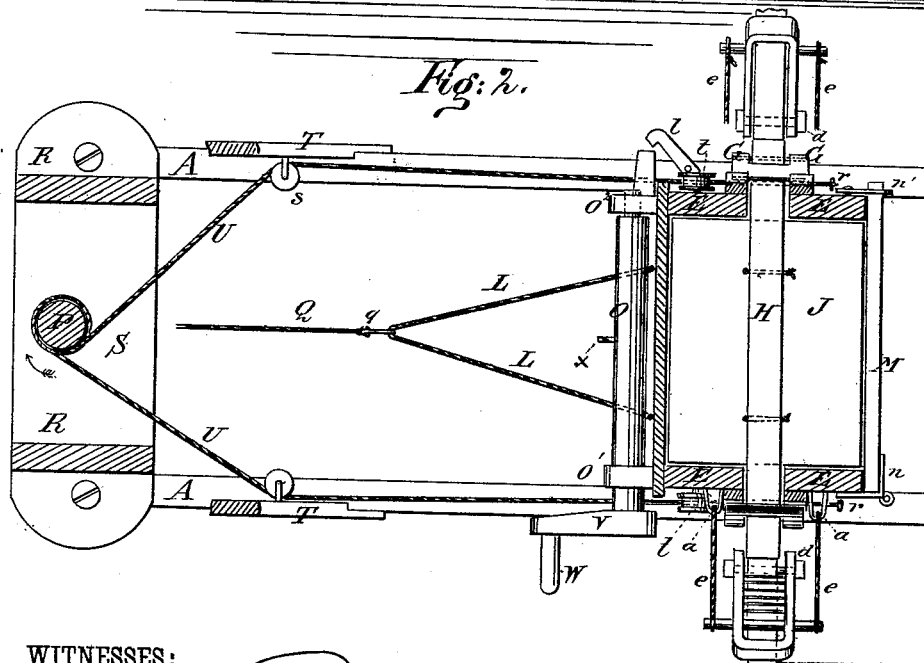
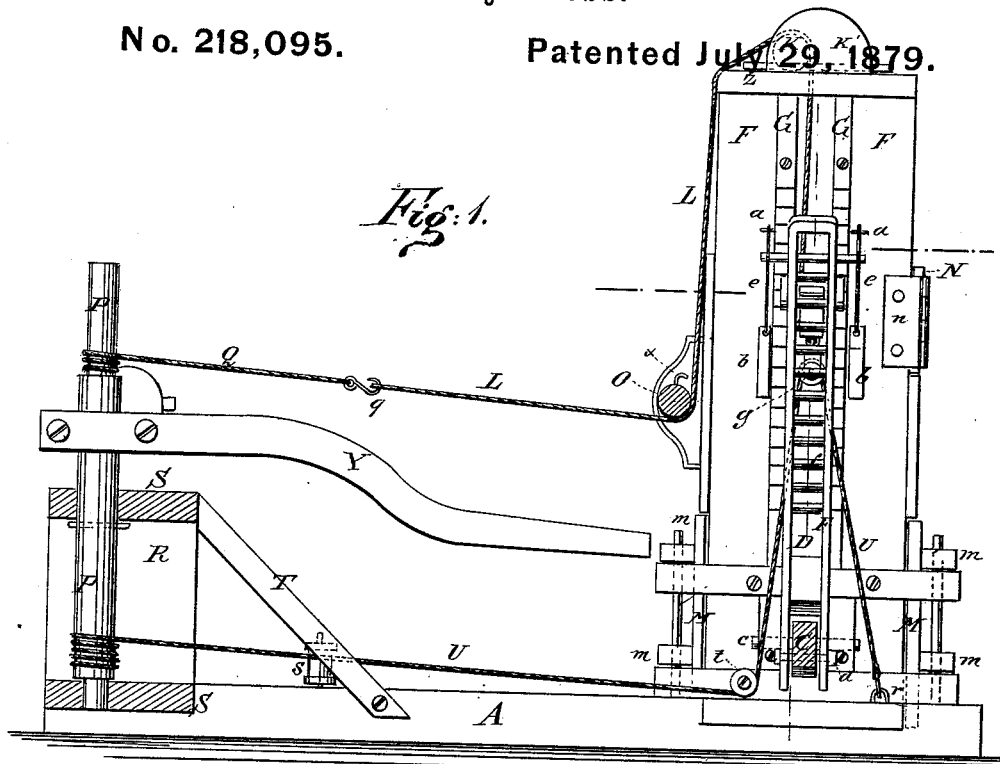


W. H. WATSON.
Hay-Press.

No. 218,095.

Patented July 29, 1879.



WITNESSES:

Cnas. Nida,
C. Sulgwick

INVENTOR:

W. H. Watson

BY

Munn & Co.
ATTORNEYS.

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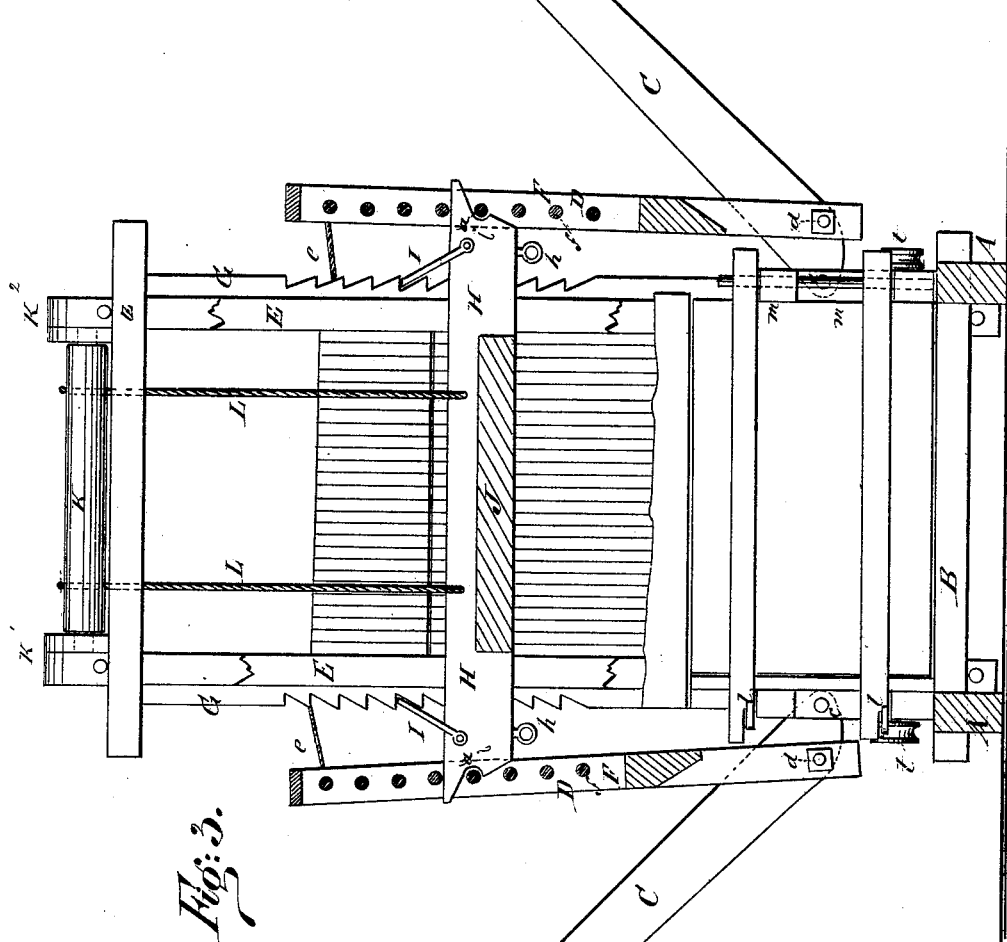


Fig. 3.

WITNESSES:

Chas. Nida
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INVENTOR:

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UNITED STATES PATENT OFFICE

WILLIAM H. WATSON, OF CHESHIRE, OHIO.

IMPROVEMENT IN HAY-PRESSES.

Specification forming part of Letters Patent No. **218,095**, dated July 29, 1879; application filed May 13, 1879.

To all whom it may concern:

Be it known that I, WILLIAM HENRY WATSON, of Cheshire, in the county of Gallia and State of Ohio, have invented a new and Improved Hay-Press, of which the following is a specification.

The object of my invention is to provide a hay-press that is portable, can be operated by hand or horse power, and is cheap and durable.

The invention consists in combining a follower having a yoke-beam with levers, ladders, ropes, pulleys, and a spindle; in combining a yoke-beam, follower, ladders, and levers; in combining weighted ropes with the ladders; and in combining a follower, a yoke-beam, ropes, ladders, and levers, all as hereinafter described, and embraced in the claims.

In the drawings, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a vertical cross-section.

Similar letters of reference indicate corresponding parts.

A A form the base-frame. B is the bottom of the hay-box. Z Z is the top plate of the guide-frame. C C are the levers, pivoted at *cc* between the upright guides E E. D D are ladder-pitmen, pivoted to the levers C C at *d d*, and formed of the bars F F and spokes *ff*. The ropes *ee* are secured to the ends of the ladders, then pass through rings or staples *aa* on the uprights E E, and are provided with counter-weights *b b*.

G G are ratchet-bars fixed to the sides of the guides E E, into which the pawls I I, fastened to the end of the yoke-beam H, catch. J is the follower, and is fastened to the yoke-beam H. *h h* are rings or staples, to which the pulleys *g g* are hooked when the press is to be operated by horse-power. M M are the front and rear doors of the hay-box. They are hinged at *m m*, and are secured by means of hooks *l l*.

N is the upper door, through which the hay is placed into the press. It is hinged at *n n*, and is secured by hooks *n'*.

K is a roller pivoted between the ears K¹ and K² on the top of the guide-frame, over which the ropes L L pass.

If the press is operated by hand-power they

are wound upon the windlass O, pivoted between the ears O¹ and O² on the rear of the guide-frame, and provided with a crank, V, handle W, and hook X.

If the press is to be operated by horse-power the ropes L L are connected with the rope Q, and then wound up on the spindle P. The uprights R R, fastened to the base-piece A A, the cross-pieces S S, and the braces T T, form a frame for spindle P.

The ropes U U are hooked into the staples or rings *r r* on the bottom B of the hay-box, then pass up and over the pulleys *g g*, then down and over the rollers *t t*, and then pass around the rollers *s s* and are wound upon the spindle P. Y is the lever by means of which the spindle P is turned. Each end of the yoke-beam H has a slight depression, *i i*, for a purpose that will be described hereinafter.

The operation is as follows: The doors M M are opened, and the wire, rope, hoop, or whatever material that the hay is to be baled with, is laid into the hay-box. These doors are then fastened, and the upper door, N, is opened, and through it the hay is thrown into the box. If the machine is to be operated by horse-power the ropes U U are hooked into the rings *r r*, passed through the pulleys *g g*, and over the rollers *t t* and *s s*. The ropes L L are connected with the rope Q by means of the hook *g*.

Now, if the spindle P is turned in the direction of the arrow by a horse pulling at the end of the lever-arm Y, the ropes U U will be wound up, and, as they are fastened at *r*, will necessarily cause the yoke-beam and the follower to descend. The rope Q and with it the ropes L L are unwound.

When the hay has been sufficiently pressed the spindle is turned in the opposite direction, ropes Q and L are wound up and raise the yoke-beam and the follower, and U U are unwound.

If the machine is to be operated by hand, ropes L L are unhooked from rope Q, and the ropes U U unhooked from staples *r r*, and the follower is raised by fastening the ropes L L to the roller O, by means of the hooks *g* and X, and rotating O. After the hay-box is filled the levers C C are raised, and the bevels of the yoke-beam will cause the ladder-pitmen D D

to move outward until one of the spokes *f* comes to the top edge of *H*, when the weights *b b* will draw them inward and cause the end of the yoke-beam to project out between the spokes of the ladder *D*. If the levers *C C* are now pressed down, the yoke-bar and the follower will go down with them, and the hay will be pressed. The pawls *I I* will catch in the teeth of the ratchet-bar *G G* and prevent the yoke-beam from rising. If the hay is sufficiently pressed the pawls *I I* are thrown back and follower raised by the ropes *L L*, as before.

The object of the depression *i i* in the ends of the yoke-beam is to cause the ladder-pitman to jump, and thus increase the effect of the weights *b b*. If the hay has been sufficiently pressed, either by hand or horse power, the doors *M M* are opened before the follower is raised, the bales tied, and then the follower raised, and the bale may be rolled out.

Hay, straw, corn-husks, broom-straw, and all like material can be baled with this machine. The advantages of it are that it can be easily transported, set up on a barn-floor or in a hay-shed, and consequently be used in rainy weather, or it can be taken out into the fields. The hay is not handled and thrown about very

much, and need not be transported, as the machine is portable.

I am aware that hay-presses operated either by hand or horse power have heretofore been made, and I do not claim that, broadly; but,

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

1. A hay-press that can be operated by hand or horse power, consisting of the combination of the follower *J*, with the yoke-beam *H* attached to it, of the levers *C*, of pitmen-ladders *D*, of the ropes *U*, pulleys *g*, *t*, and *s*, and spindle *P*, as and for the purpose set forth.

2. The combination of the yoke-beam *H*, of follower *J*, of pitmen-ladders *D D*, and of levers *C C*, as set forth.

3. The combination of pitmen-ladders *D D* and ropes *e e*, provided with weights *b b*, as set forth.

4. The combination of the follower *J*, of yoke-beam *H*, ropes *L L*, of pitmen-ladders *D D*, and of levers *C C*, as and for the purpose set forth.

WILLIAM HENRY WATSON.

Witnesses:

W. C. ECKMAN,
ELLIS SWISHER.