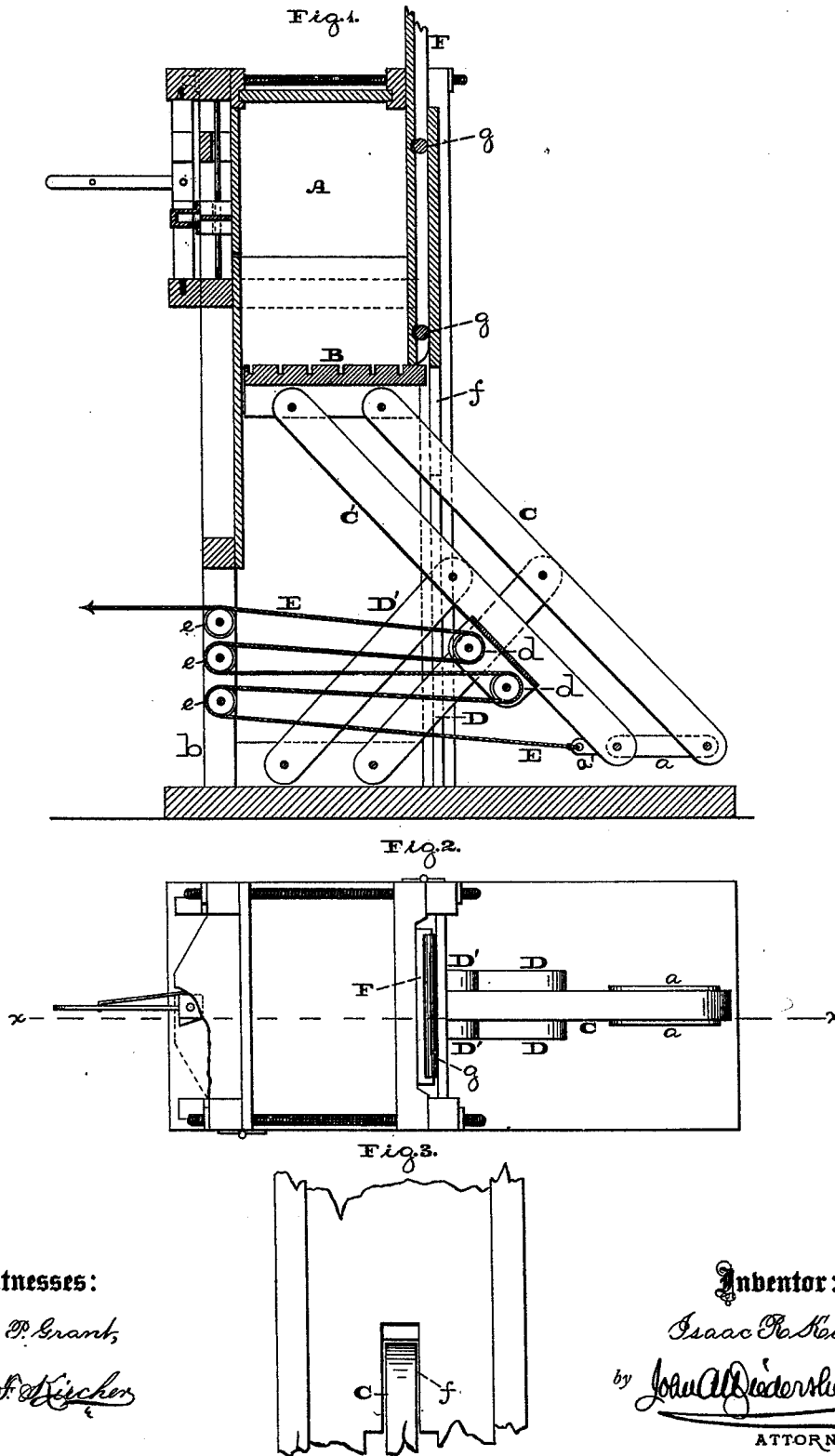


I. R. KULP.  
Hay-Press.

No. 208,525.

Patented Oct. 1, 1878.



Witnesses:  
No. P. Grant,  
H. F. Fischer

Inventor:  
Isaac R. Kulp,  
by *J. A. Diederstein*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

ISAAC R. KULP, OF HATFIELD, PENNSYLVANIA.

## IMPROVEMENT IN HAY-PRESSES.

Specification forming part of Letters Patent No. **208,525**, dated October 1, 1878; application filed August 28, 1878.

*To all whom it may concern:*

Be it known that I, ISAAC R. KULP, of Hatfield, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Hay and other Presses, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a vertical section of the press embodying my invention, in line *xx*, Fig. 2. Fig. 2 is a top view thereof. Fig. 3 is a side view of a portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a system of levers, which operate the follower with great power and rapidity.

It also consists of a movable guard at the side of the box, for preventing hay, &c., passing out of the opening existing for the play of the operating levers of the follower, whereby the movements of the follower are not obstructed and the levers are not clogged.

Referring to the drawings, A represents the box, and B the follower, to which are pivoted two levers, C C', which, extending parallel one above the other, are pivoted at their lower ends to connecting-straps *a*.

To the sides of the levers C C', intermediate of their ends, there are pivoted two parallel levers, D D', one of which is pivoted to the upper lever, C, and the other to the lower lever, C'. The lower ends of said levers D D' are pivoted to the base of the supporting-frame *b* of the box, and said levers may be in pairs.

On the lower side of the lever C' there are secured pulleys *d d*, and to the frame *b*, near the base thereof, there are secured pulleys *e e*, arranged one above the other, around which pulleys is passed alternately a rope or chain, E, one end of which is connected at *a'* to the lower end of the lever C'.

It will be seen that when power is applied

to the rope or chain E, the levers C C' D D', which in their lowermost position extend diagonally in opposite directions, are raised and assume vertical positions, whereby the follower is elevated.

As the rope or chain E draws on the pulleys *d* and lower end of the lever C', and thus at different points, the action thereof on the levers C C' causes the follower to move with great power and rapidity.

Owing to the long sweep, play, or movement of the lever C, an opening, *f*, is formed in the side of the box A to permit such movement. Hay, &c., enters such opening, and serves to obstruct the movement of the follower and clog the levers. To prevent this I employ a guard, F, which is fitted vertically at the side of the box adjacent to the opening *f*, and rests on the follower, so as to move with it, whereby the opening is covered at all times, and there is presented a barrier to the escape of hay at the said opening, without, however, interfering with the pressing operations.

Rollers *g g* are applied to the guard F, and bear against the adjacent side of the box, so as to ease the motions of said guard.

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

1. In a press, the follower B and parallel levers C C' D D', in combination with the pulleys *d* on the lever C', the series of pulleys *e* on the frame *b*, the bottom connection, *a'*, connecting-straps *a*, and rope E, substantially as and for the purpose set forth.

2. The vertically-movable guard F, covering the opening *f* and provided with rollers *g*, substantially as and for the purpose set forth.

ISAAC R. KULP.

Witnesses:

JOHN A. WIEDERSHEIM,  
SAML. M. GRICE.