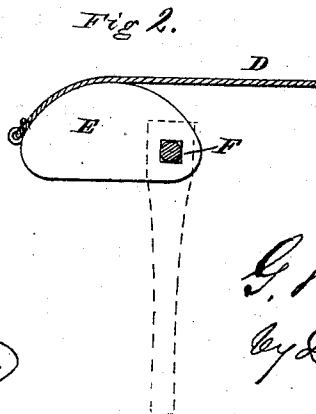
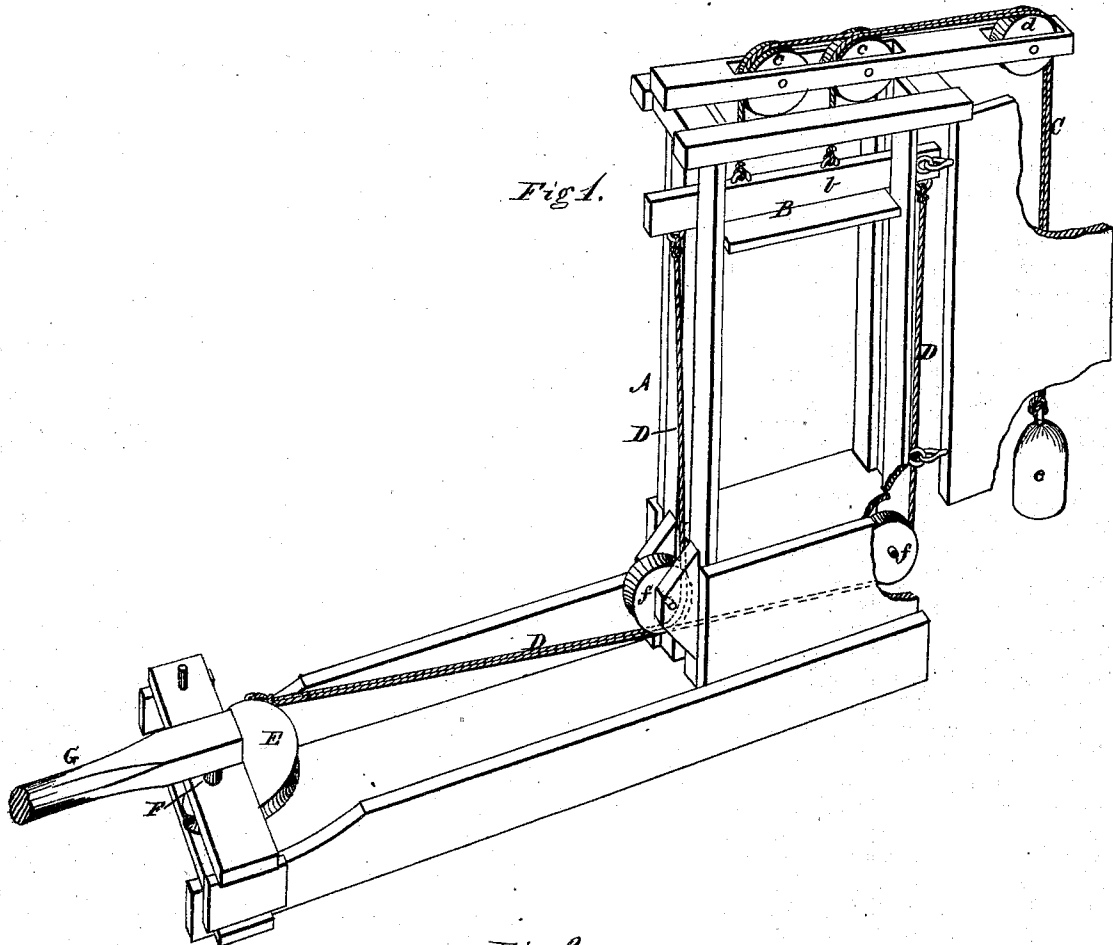


G. H. AYLWORTH.

Improvement in Cotton and Hay Presses.

No. 120,612.

Patented Nov. 7, 1871.



Witnesses.

Harry King.
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Inventor.

G. H. Aylworth.
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UNITED STATES PATENT OFFICE.

GEORGE H. AYLWORTH, OF BRIGHTON, ILLINOIS.

IMPROVEMENT IN COTTON AND HAY PRESSES.

Specification forming part of Letters Patent No. 120,612, dated November 7, 1871.

To all whom it may concern:

Be it known that I, GEORGE H. AYLWORTH, of Brighton, in the county of Macoupin and State of Illinois, have invented certain Improvements in Baling-Presses, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to an improved press for baling hay and similar purposes; and the invention consists mainly in the use of an eccentric pulley upon which to wind the chain that operates the compressing devices, whereby the leverage or power of the press increases as the bale becomes more dense.

Figure 1 is a perspective view of my press, and Fig. 2 is a top view of the eccentric wheel.

A represents the upright body or frame of the press, containing a stationary bed or bottom, *a*, and a follower, B, the latter being provided with a cross-bar, *b*, the ends of which extend out through vertical slots in the sides of the body, as shown in Fig. 1, there being a door, I, hinged on one side in the usual manner to permit the insertion of the material and the removal of the bale when pressed. Connected to the follower B are two ropes or chains, C, which pass up over pulleys *c* in the top of the body, and thence off to one side and down over a side pulley, *d*, to a weight, *e*, which is attached to their lower ends, as shown in Fig. 1, so that when the follower is free the weight will descend and the ropes will raise the same to the top of the body. Chains D are attached to the ends of the bar *b* and passed down under pulleys *f* on the lower corners of the body A and off to one side, where they are both connected to a grooved eccentric pulley, E. The pulley E is secured on a vertical shaft, F, which is also provided with a sweep or lever, G, so that when the sweep is turned it rotates the pulley, which winds up the chains and draws down the bed B. When the sweep is released or turned backward the weight *d* raises the bed B, which, drawing on the chains D, unwinds them from the pulley E. The shaft F upon which the pulley is secured is mounted in a horizontal side frame attached to the foot of the body A. The grooved edge or periphery of the pulley E, against which the chains wind, is eccentric to the shaft F, and the chains are attached to the pulley at its outermost point, or, in other words, the point furthest from the center.

It will be seen that when the parts are thus arranged the chain commences winding upon the outer or large part of the pulley, and winds around on the edge of the same, nearer and nearer the center or axis, and, consequently, that the strain exerted upon the chain increases from the commencement of the revolution to the end of the same. This increase of force or power exerted by the pulley is owing to the fact that the pulley grows smaller and that the chain is winding upon a surface which is constantly approaching the center, so that the sweep or lever G is gaining more and more leverage in proportion. The chains are, of course, wound with greater speed by the outer portion of the pulley than by the inner, the speed with which the chains are wound decreasing, of course, just in proportion to the increase of power of the pulley. It will thus be seen that by the use of the eccentric pulley I cause the pressure-bed B to move rapidly at first, when the hay is in a loose state, but with decreasing speed and increased force as the hay becomes more dense and compact.

My press is exceedingly simple, cheap, and strong, and is more especially adapted for the use of farmers who desire a cheap portable press for use in the field or at the barn.

If desired the bottom frame may be formed in the shape of runners, or it may have wheels attached, whereby it can be readily moved from place to place, especially when used in the field.

In operating it a horse or other animal is attached to the sweep, the eccentric pulley E being arranged horizontally for that purpose. The same animal may, of course, be used to move the press about in the field, as desired.

Having thus described my invention, what I claim is—

1. The arrangement of the frame A, follower B, pulleys *f*, cords D, and the eccentric pulley E with the sweep G attached, substantially as herein described.

2. In combination with the foregoing, the weight *e* attached to the cords C passing over pulleys *c* and attached to the follower B, all as herein set forth.

GEORGE H. AYLWORTH.

Witnesses:

OSCAR A. CHASE,
HENRY G. HALL.

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