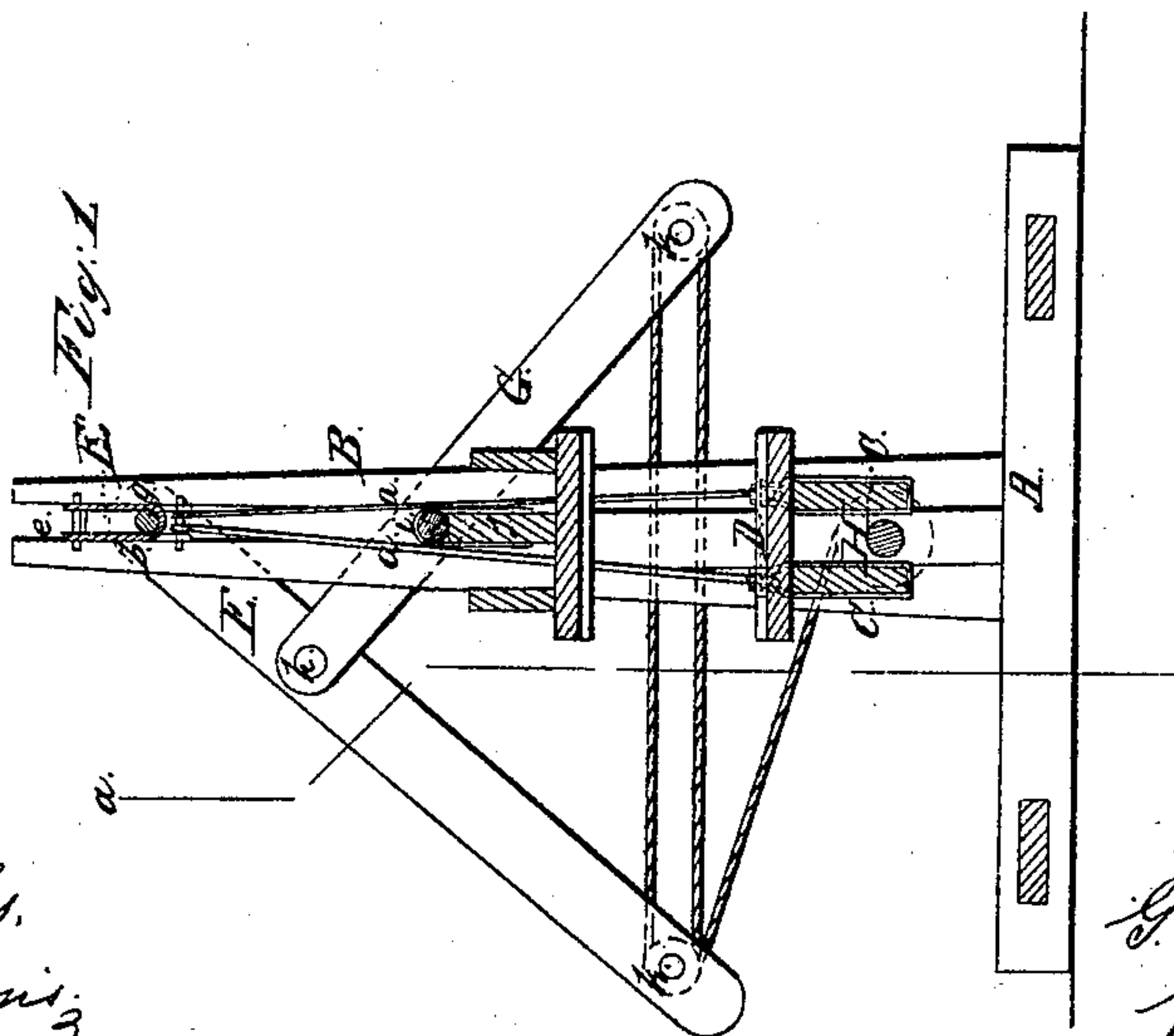
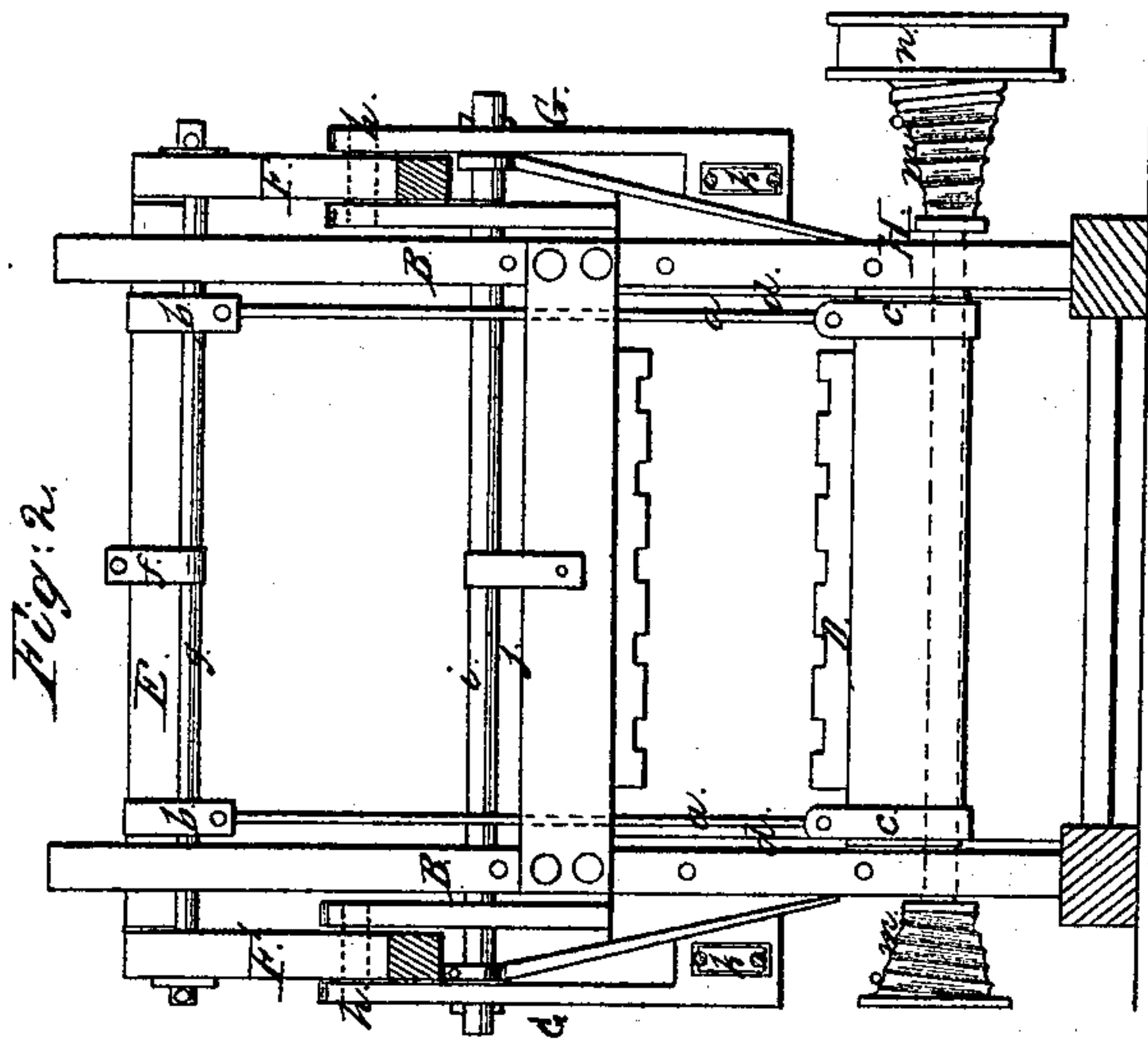


*G. E. Harding,*  
*Cotton Press.*

N<sup>o</sup> 42,763.

*Patented May. 17, 1864.*



Witnesses;

W. Coombs,  
Henry Morris;

Inventor,  
G. E. Harding,  
per Munroe & Co.  
attorneys.

# UNITED STATES PATENT OFFICE.

G. E. HARDING, OF BATH, MAINE.

## IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. 42,763, dated May 17, 1864.

*To all whom it may concern:*

Be it known that I, G. E. HARDING, of Bath, in the county of Sagadahoc and State of Maine, have invented a new and Improved Compress; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical section of my invention. Fig. 2 is a sectional front elevation of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference in both views indicate corresponding parts.

This invention relates to an improvement in that class of presses in which the follower is forced against the press-board by the action of levers, which are acted upon by a rope running over suitable blocks and connecting with a windlass.

The nature of my invention and its peculiar advantages will be readily understood from the following description.

A represents a frame, made of wood or any other suitable material, and provided with up-rights B, to which the press-board C is rigidly connected at about the middle of their height, as clearly shown in the drawings.

D is the follower, which is suspended by means of rods *a* and straps *b c* from a slide, E. The follower slides easily up and down between the up-rights, being guarded by tongues *d*, projecting from their inner edges, and the slide E is fitted in slots *e* in the upper ends of said up-rights. It extends beyond the up-rights on either end of the frame A, and firmly attached to its under ends by means of a strap, *f*, is the rod *g*, the ends of which extend through the upper ends of the levers F. These levers have their fulcra on pivots *h*, which connect the same to the ends of the levers G, and the levers G are fulcrated in the ends of a rod, *i*, which is rigidly secured to the bolster *j*, running in a longitudinal direction across the press-board C. The lower ends of the levers F and G are furnished with pulley-blocks *k* and ropes *l*, which are fastened at one end to the levers F, extend over the pulley-blocks *k*

in both sets of levers, and thence to a windlass, H. The drums *m* of this windlass are made in the shape of a fusee, so that the power exerted on the levers F G increases as the rope descends toward the small ends of said fusees, and motion is imparted to said windlass by a belt running over a pulley, *n*, either from a horse-power or from any other desirable source of power.

The operation is as follows: At the beginning of the operation the follower is brought down to its lowest position, and the hay, cotton, or other article to be compressed is arranged therein in such quantity as may be desirable. In starting the windlass H the power exerted by the ropes *l* on the lower ends of the levers F G compels the same to approach each other, and the slide D is gradually forced up by the action of the levers F or the rod *g*. At the same time, by the action of the levers G on the rod *i*, the press-board C is held down and prevented from giving way, and the material on the follower is compressed between the inner surfaces of the press-board and follower. The power exerted by the press on the material gradually increases by the change in the relative position of the levers F G and by the ropes *l*, descending from the largest to the smallest portions of the fusees *m*.

By means of this compress hay, cotton, tobacco, or any other material can be compressed in an easy and quick manner. The material is readily brought on the follower, and after having been formed into bales removed therefrom; and all the parts of the press are so constructed that they are not liable to get out of repair.

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

The slide E and rod *g* or its equivalent, in combination with the follower D, levers F G, rod *i*, press-board C, and fusees *m*, all constructed and operating in the manner and for the purpose substantially as herein shown and described.

G. E. HARDING.

Witnesses:

E. S. J. NEALLEY,  
DAVID B. RICHARDSON.