

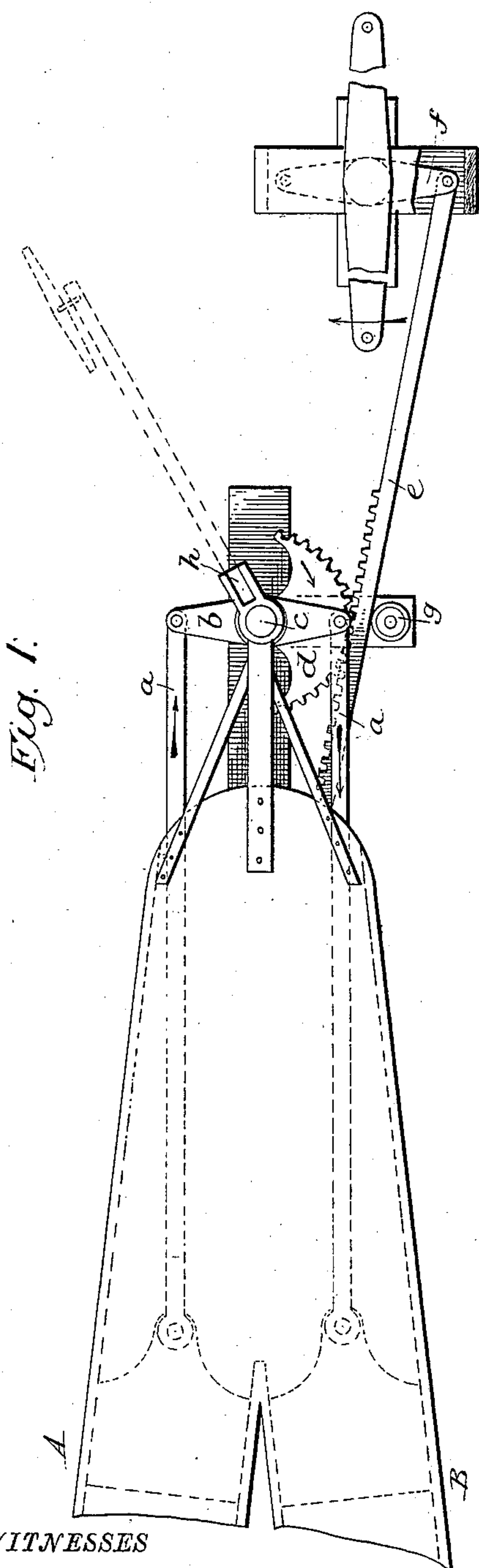
(No Model.)

W. D. ARNETT.

HAY BALER.

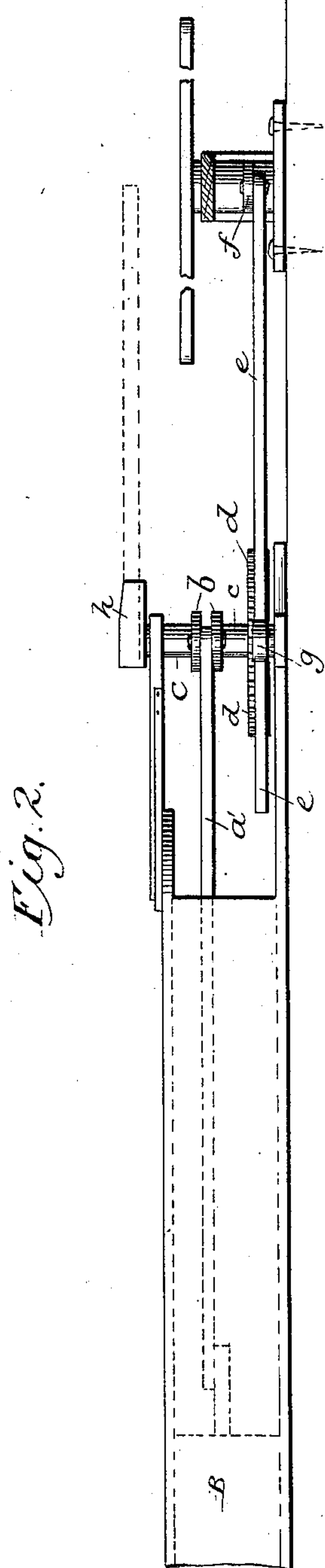
No. 358,245.

Patented Feb. 22, 1887.



WITNESSES

*Sidney P. Hollingsworth*  
*William H. Shipley.*



INVENTOR

*Wm D. Arnett*  
*by Phil. J. Dodge*  
Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM D. ARNETT, OF MORRISON, COLORADO.

## HAY-BALER.

SPECIFICATION forming part of Letters Patent No. 358,245, dated February 22, 1887.

Application filed March 8, 1886. Serial No. 194,480. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. ARNETT, a citizen of the United States, residing at Morrison, in the county of Jefferson and State of Colorado, have invented a new and useful Machine for Operating Hay-Presses, of which the following is a specification.

My invention relates to machinery for operating hay-presses.

Heretofore hay-presses have been operated by power turning a crank to which an arm is attached, whose other end is hinged directly to the plunger of the press, so that by each revolution of the crank the plunger makes one compression, and the operators have to wait until the plunger is moved back before putting more hay into the press, which is a waste of at least half their time, and also making the expense of baling hay double what it should be. Another arrangement is in use by which a toggle-joint is operated by a lever to which the power is attached, and in this the lever is obliged to make a half-circle to press the plunger of the press forward, then its motion must be reversed, and it must make its starting-point, to do which it must travel over the same space, so making the same distance, taking the same time, and making the same losses as the before mentioned machine.

The object of my invention is to provide a means of operating two presses by the same number of operators and same power that is now required by one press, thus consuming the time now wasted and furnishing double the product with the same expense. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the machine, showing its connections with the power and the plungers of the presses; Fig. 2, a side view of the machine and its connections.

In setting up for work, two presses, A and B, (of the ordinary make, in which plungers are used for compressing hay,) are placed in such a position that the plungers may be attached to arms *a* and *a'*, whose other ends are formed into eyes which are pivoted to the ends of a walking-beam, *b*, which is attached to a

shaft, *c*, which moves with it. Beneath this beam, and attached to the same shaft, is a semicircular cog-wheel, *d*. Working in the cogs of this wheel are the cogs on an arm, *e*, which is pivoted to the crank *f*, which is operated by the power. (Shown in dotted lines, Fig. 1.) The arm *e* is held in position against the cog-wheel *d* by a friction-wheel, *g*. As the crank *f* moves around, it causes the arm *e* to move back and forth, which turns the wheel *d* about half-way around. This movement causes the walking-beam *b* to form a toggle-joint with the arm *a*. Then the operation is reversed by the arm *e*, and the other end of the beam *b* forms a toggle-joint with the arm *a'*. Thus two compressions will be made by each turn of the crank *f*.

Should the space in which the presses are operated be limited, or should it be desired to operate without the rotating crank *f* and arm *e*, they may be removed and a lever placed in the socket *h*, as shown by dotted lines, which can be propelled half-way around, then back, which will have the same result as if operated by the crank *f*, arm *e*, and wheel *d*.

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

1. In a baling-press, the combination, with the baling-chambers, the plungers, and a walking-beam connected with the plungers, of a rotating crank, the pitman provided with a longitudinal rack, a geared segment rigidly connected with the walking-beam, and a guide to maintain the rack in engagement with the segment, substantially as described.

2. In a baling-press, the combination, with the baling-chambers, the plungers, and a walking-beam connected with the plungers, of a rotating crank, the pitman provided with a longitudinal rack, a geared segment rigidly connected with the walking-beam, and a friction-roll to maintain the rack in engagement with the segment, substantially as described.

WILLIAM D. ARNETT.

Witnesses:

JOHN D. MCGILVRAY,  
H. P. PARMELEE.