

U. Schegg,
Cotton Press,

Nº 71,071,

Patented Nov. 19, 1867.

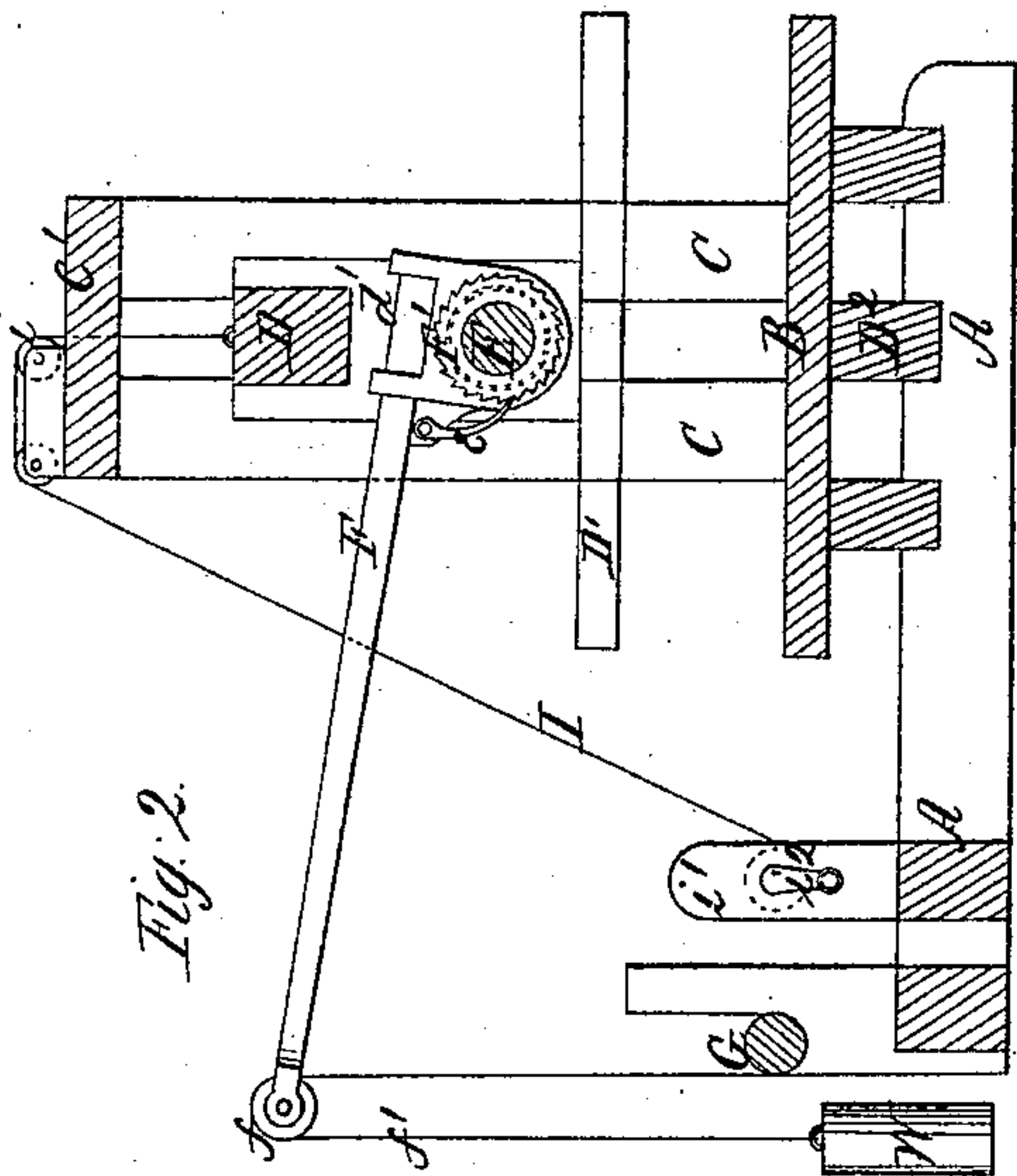


Fig. 2.

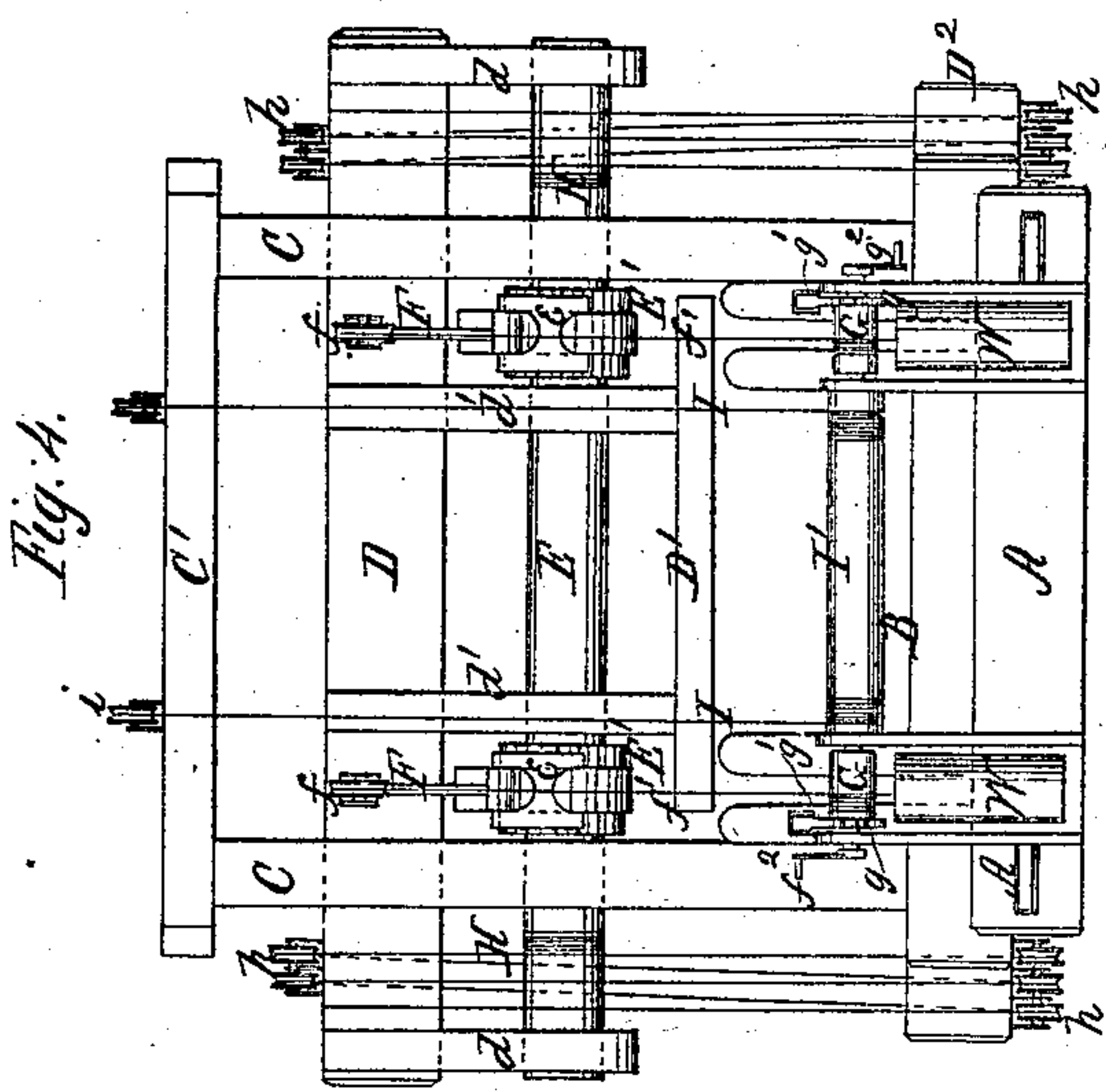


Fig. 4.

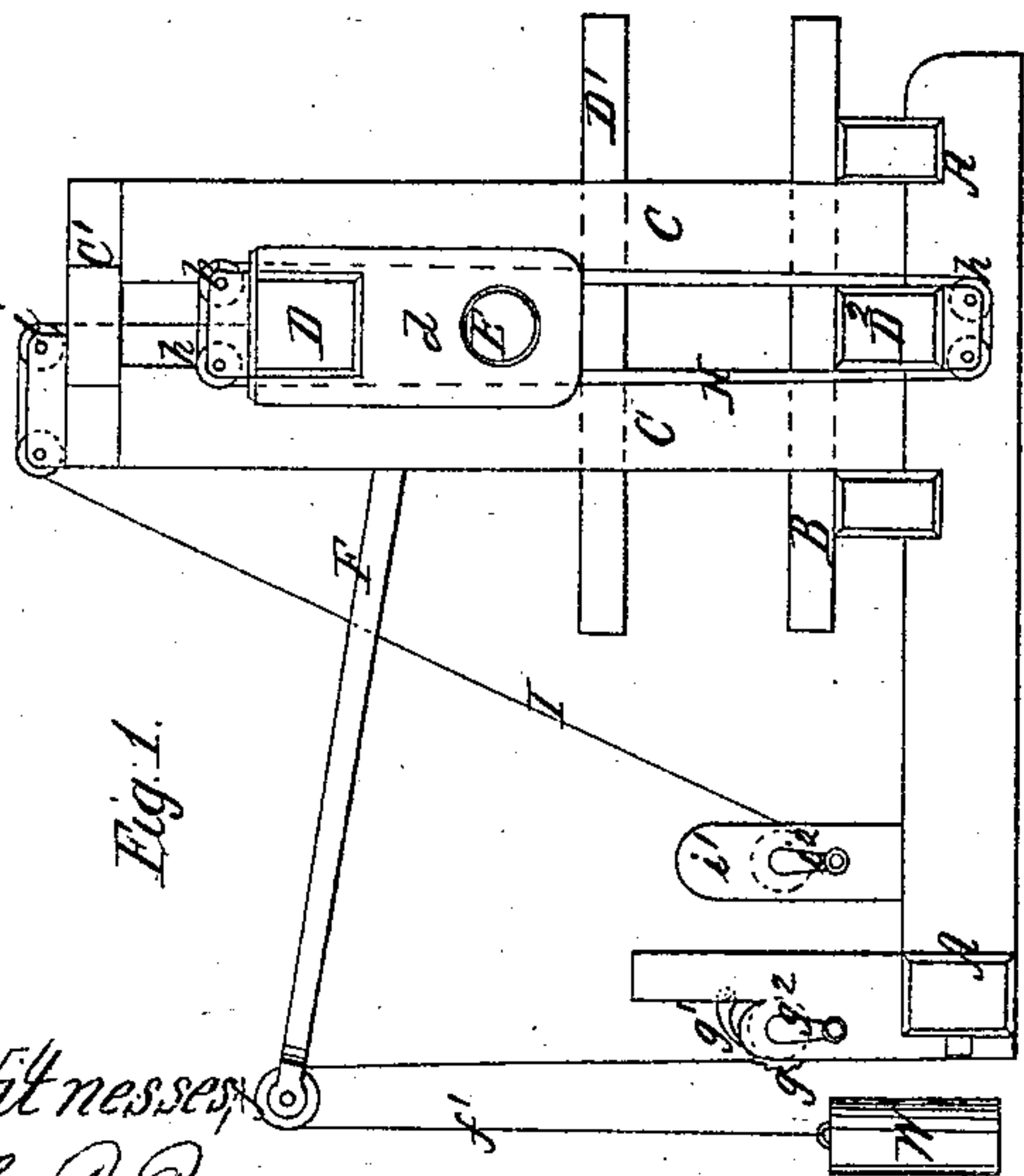


Fig. 1.

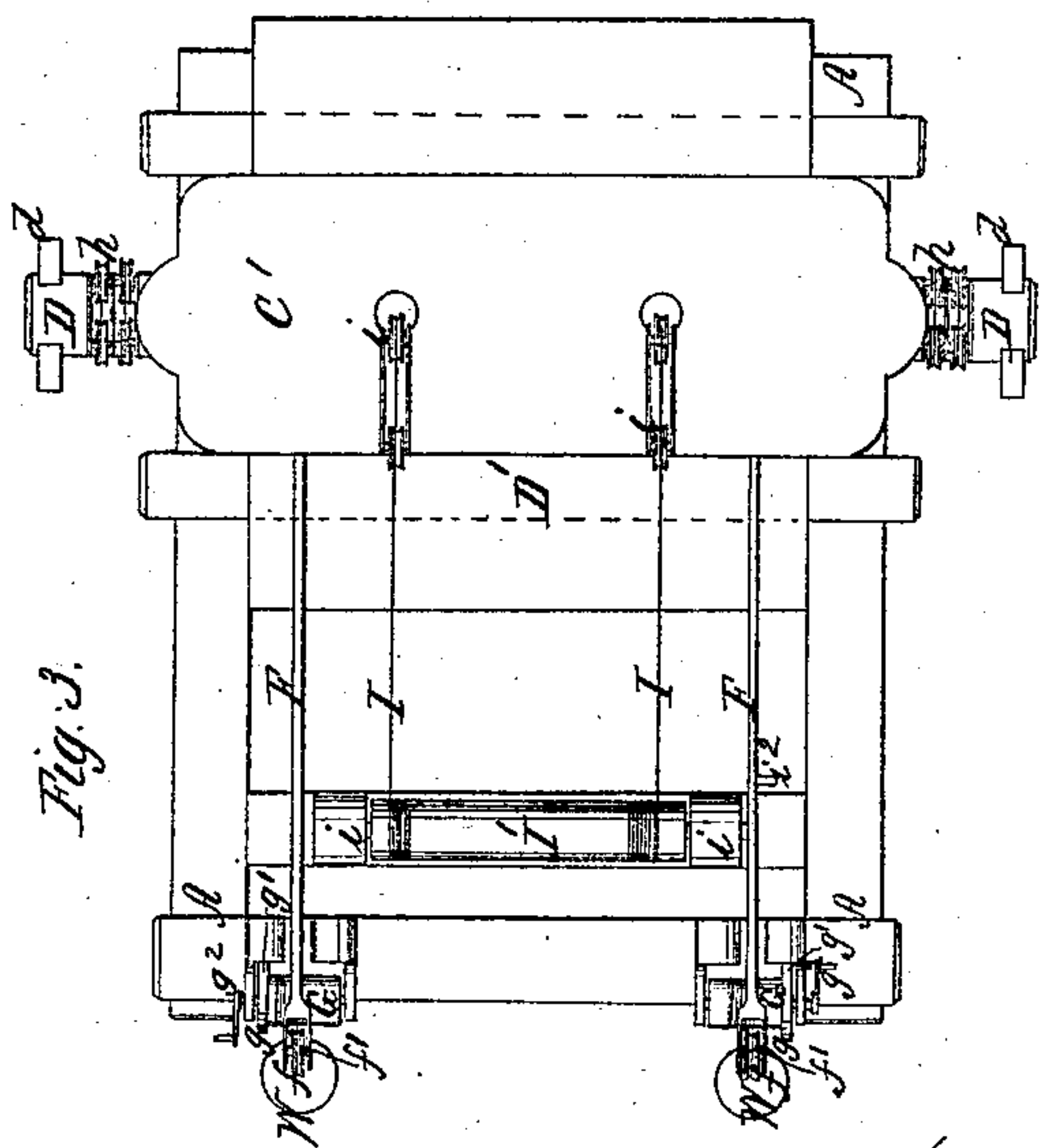


Fig. 3.

Witnesses,
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United States Patent Office.

ULRICH SCHEGG, OF NAUVOO, ILLINOIS.

Letters Patent No. 71,071, dated November 19, 1867.

IMPROVEMENT IN PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ULRICH SCHEGG, of Nauvoo, in the county of Hancock, and State of Illinois, have invented a new and useful Improvement in Presses; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to certain combinations of levers, weights, and tackle applied to a follower of a press in such a manner as to produce a constant pressure upon the article to be pressed, thus greatly improving the efficiency of the press over those wherein a certain fixed power is applied at the commencement of the operation and afterward increased irregularly at intervals thereafter, as in the case of screw or lever-presses. The press constructed as hereinafter described is especially adapted to the extraction of the juice from the grape for purposes of wine-manufacture, an operation which has until now been most perfectly performed by the pressure of the naked human feet. Although especially adapted for this particular purpose, this press may be used with equal benefit for a cider, lard, cheese, or other similar press.

To enable those skilled in the art to make and use my improved press, I will proceed to describe its construction and operation.

Figure 1 of the drawings is a side elevation of the improved machine.

Figure 2 is a longitudinal sectional elevation of it.

Figure 3 is a plan of the same.

Figure 4 is a rear end elevation.

A is the platform or foundation framework on which the press is erected. The platform B on top of A is that on which the article to be pressed is placed. The posts C erected upon the framework A serve as guides for the follower D. To the bottom part of this follower are attached the hangers $d d'$, in which said hangers there are bearings for the roller E. The two central hangers d' are also used as followers for forcing down the upper platen D^1 . The roller E is provided with two ratchets E' , which are actuated by means of the pawls e attached to the levers F. In the outer ends of the levers F are small sheaves, f , over which the cords or ropes f' pass. One end of each of these ropes is attached to a roller, G, and the other end to a weight, w . Each of the rollers G is provided with a ratchet, g , and a pawl, g^1 , also a crank, g^2 , as a means of winding up the cord f' and retaining it about the cylindrical portion of the roller G. In large presses it may be expedient to make an application of cogged pinions intervening between the crank g^2 and the roller G for the purpose of reducing the amount of power to be applied to the said crank in the operation of the machine. On each outer end of the roller E there is attached a rope or cord, H, which is reeved over sheaves h , fixed to the follower D and to the lower platen-beam D^2 . Of course the number of sheaves h and of the strands H may be increased indefinitely, and the number employed will always be proportionate to the amount of power to be developed by the press. The construction of the levers F, the pawls e , and the ratchets E' is such that when the outer end of the said levers has reached the bottom point to which they are allowed to go, and are raised up just a little, the pawls will become disengaged from their ratchets by the simple action of their gravitation, and this same action will be all that will be required to replace them in the teeth of the ratchets, when the lever shall have been raised to its full height and prepared for another descent.

The action of the machine thus constructed is as follows: The follower D being at the top of its guides at the commencement of the operation, the levers F will be raised up as high as they will go, either by the direct lift of the person operating them or by the application of some hoisting-tackle, not shown. When the levers are up, and commence their descent, the pawls e will drop into the teeth of the ratchets, and turn the roller E with them in their descent. As the roller E turns, it will of course wind up the cords or ropes H about its cylindrical ends, and the rope so taken up will of course draw the follower D down toward the bottom platen-beam D^2 with great force, and in such a manner as to press with great violence any article which may be placed between the said follower and lower platen. When the outer ends of the levers are up, as has already been described, the weights w will be drawn up to them by simply turning the cranks g^2 , and then the said weights will act upon the said levers to press them down with a uniform pressure until said levers are down as far as the rollers G, when the pawls g^1 may be released, and the levers again raised, and the operation repeated, as

before. The advantage of this application of the weights w to the said levers is that a constant pressure is brought to bear upon the follower to force it down, which said application is of great benefit in the pressing of many substances, as, for instance, grapes when wine is to be extracted from them. In order to raise the follower D and its appendages to the top of its ways, I employ the ropes I , one end of each of which is attached thereto, and from such points of attachment the said ropes pass up over sheaves i fixed in the top beam C' , which caps the posts C . From the said sheaves i the aforesaid ropes I pass down to and around a cylindrical drum, I' , which is sustained between the posts i^1 on the platform A . A crank, i^2 , attached to the drum or roller I' , may be used to turn it so as to wind the said ropes I around it, and thus raise the follower D to the top of its ways.

Having described my invention, what I claim, is—

1. The combination and arrangement of the levers F , the ratchets E' , and the weights w , substantially in the manner and for the purpose set forth.

2. I claim the combination of the roller E , the ratchets E' , and the tackle H h , substantially in the manner and for the purpose set forth.

3. I claim the combination and arrangement of the follower D , the cords I , and the roller I' , substantially as described and set forth.

ULRICH SCHEGG.

Witnesses:

M. RANDOLPH,
C. R. PRATT.