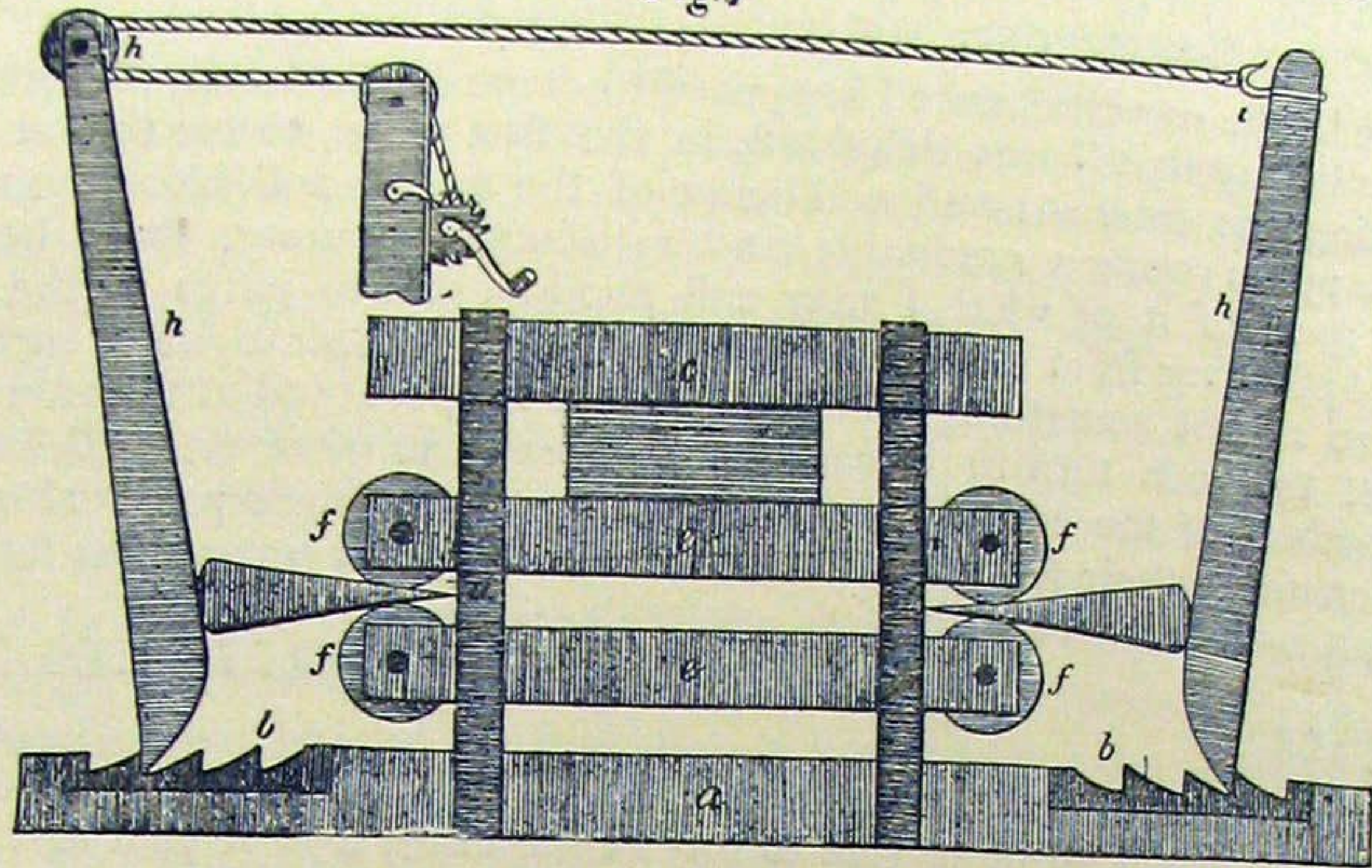


Fig. 1



Economical Press.

HERE is a description of a most ingenious, cheap, and effective press, in which all the other mechanical powers are brought into operation—viz., wheel, axle, lever, wedge, inclined plane, and pulley. It was one of the inventions of Mr. Ewings, a talented member of the London Mechanics' Institution, who obtained for it Dr. Fellowes's annual prize of £10. This was taken from "Hebert's Cyclopædia," published about fifty years ago.

The press, which is applicable to the packing of goods, the expression of juice from fruits, oil from seeds, or other purposes to which the screw-press is applied, consists of a framework and two or more blocks or beams, between which the articles to be subjected to pressure are placed, and these vary in size, form, and material, according to the purposes for which they are intended. Mr. Ewings did not claim any novelty in the construction of these parts, but only in his method of producing the pressure, which is effected by bringing together the pieces that act on the articles to be pressed by wedges. These are forced in by levers (in the manner represented by Fig. 1).; *a* is the base of the press, furnished at each end with ratchet notches *b b*, which constitute the fulcrums of the levers *h h*; *c* is the top of the press, supported by the frames *d d*; and *e e* are the pieces acting on the goods, either downwards, upwards, or both, according as the pressure may be required. In Fig. 1 it is represented as acting upwards; *f f f f* are friction rollers, between which the wedges *g g* are projected. A cord is fixed to a hook on one end of a lever, and passing over a pulley, *k*, on the end of the other lever, is attached to a small drum, *l*, furnished with a ratchet wheel and pawl, to be turned by a winch. There were other modifications of Mr. Ewings's press, but the present one is selected to show the principle of its action. The advantages of this press consist in the simplicity and economy of its construction, as it may be made by any person accustomed to handle carpenters' or smiths' tools, and of very cheap materials, and also the facility with which its power may be varied. It may be increased or diminished to any extent simply by changing the form of its wedges; but the drawings exhibit its various applications and modes of operation so obviously as to preclude the necessity of further remarks. I recommend a model to all industrial establishments.—Eos (*English Mechanic*).