

(No Model.)

J. BRICKETT.

CHECK ROWER.

No. 284,603.

Patented Sept. 11, 1883.

Fig. 1

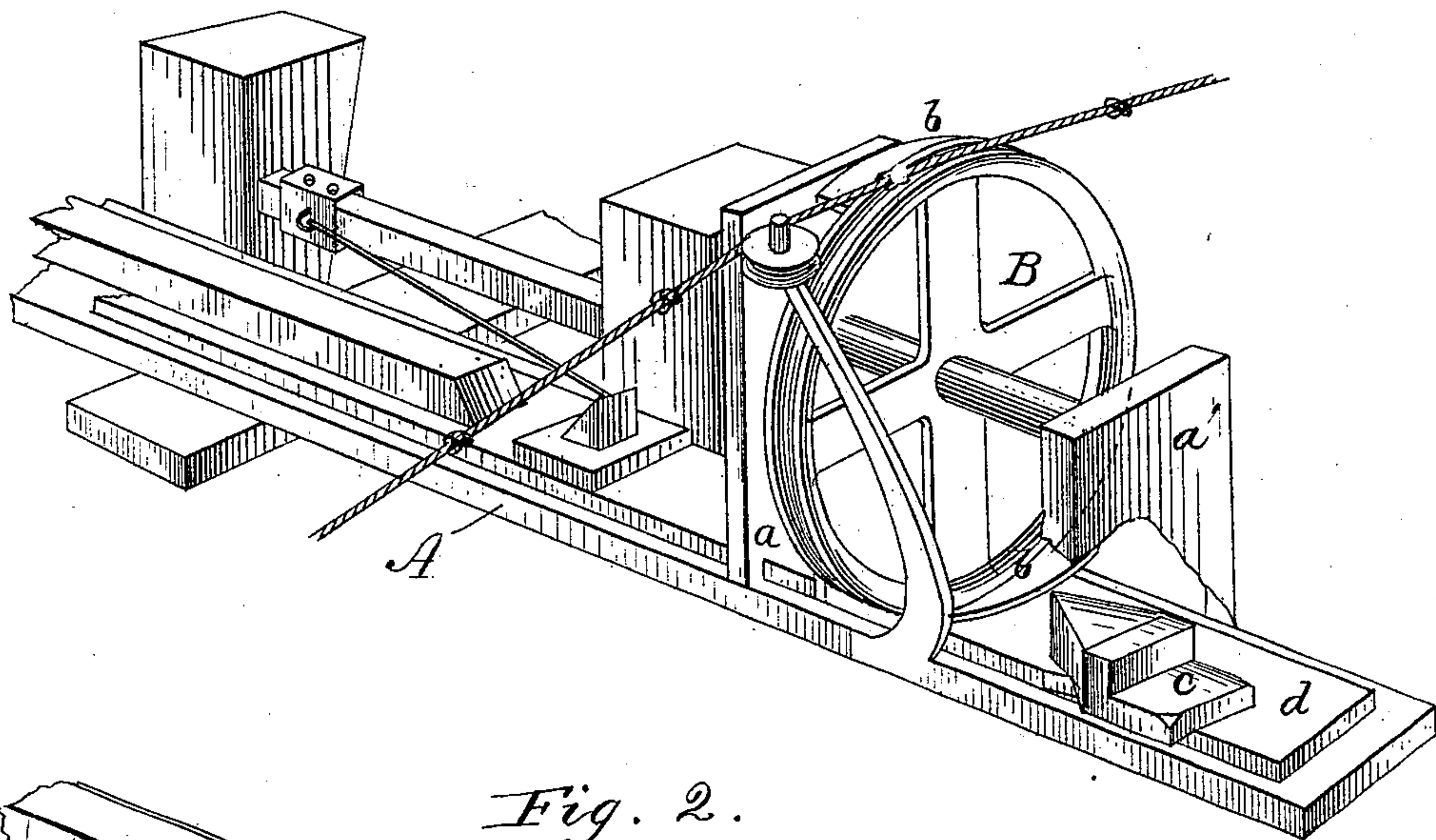


Fig. 2.

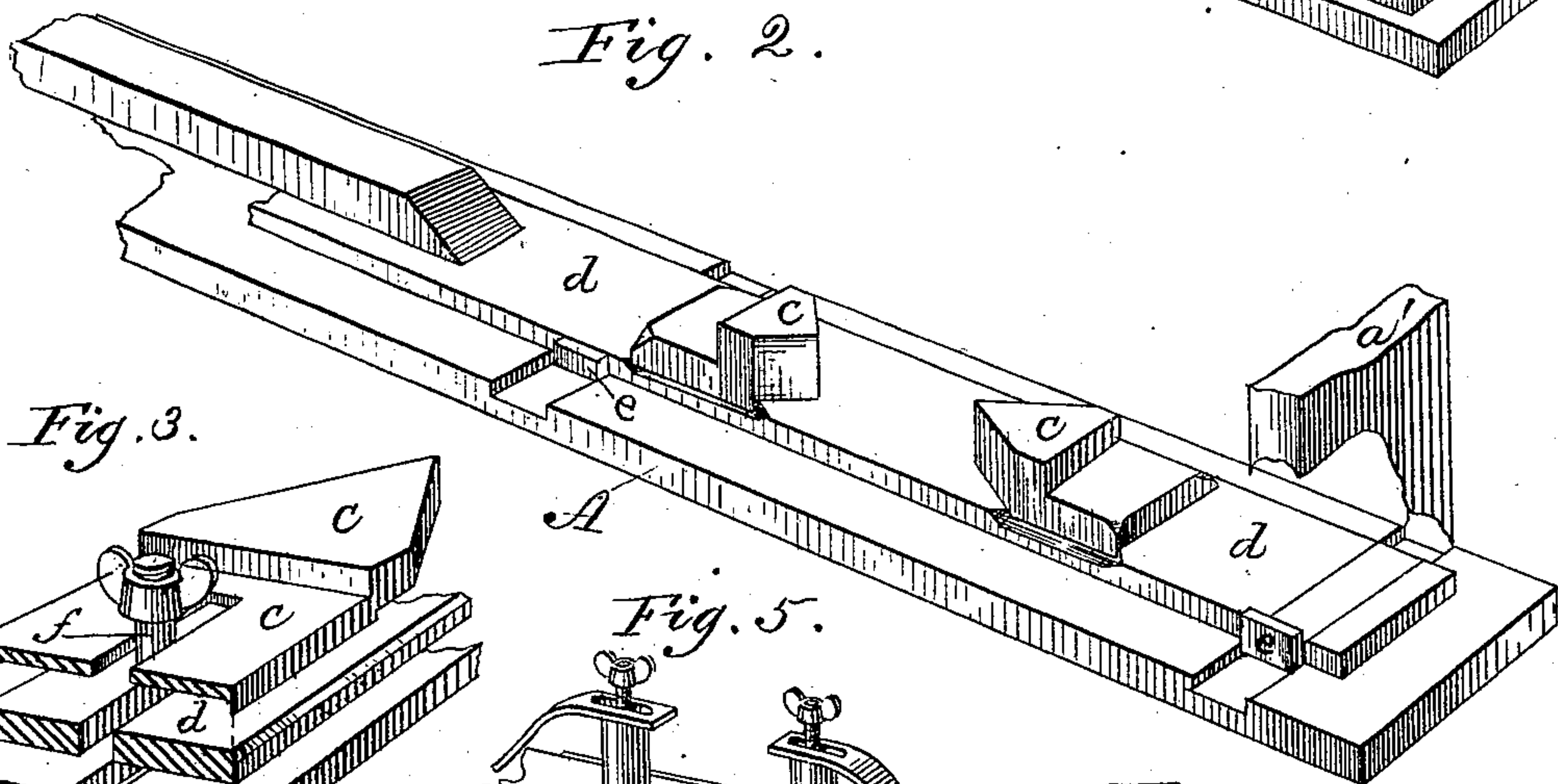


Fig. 3.

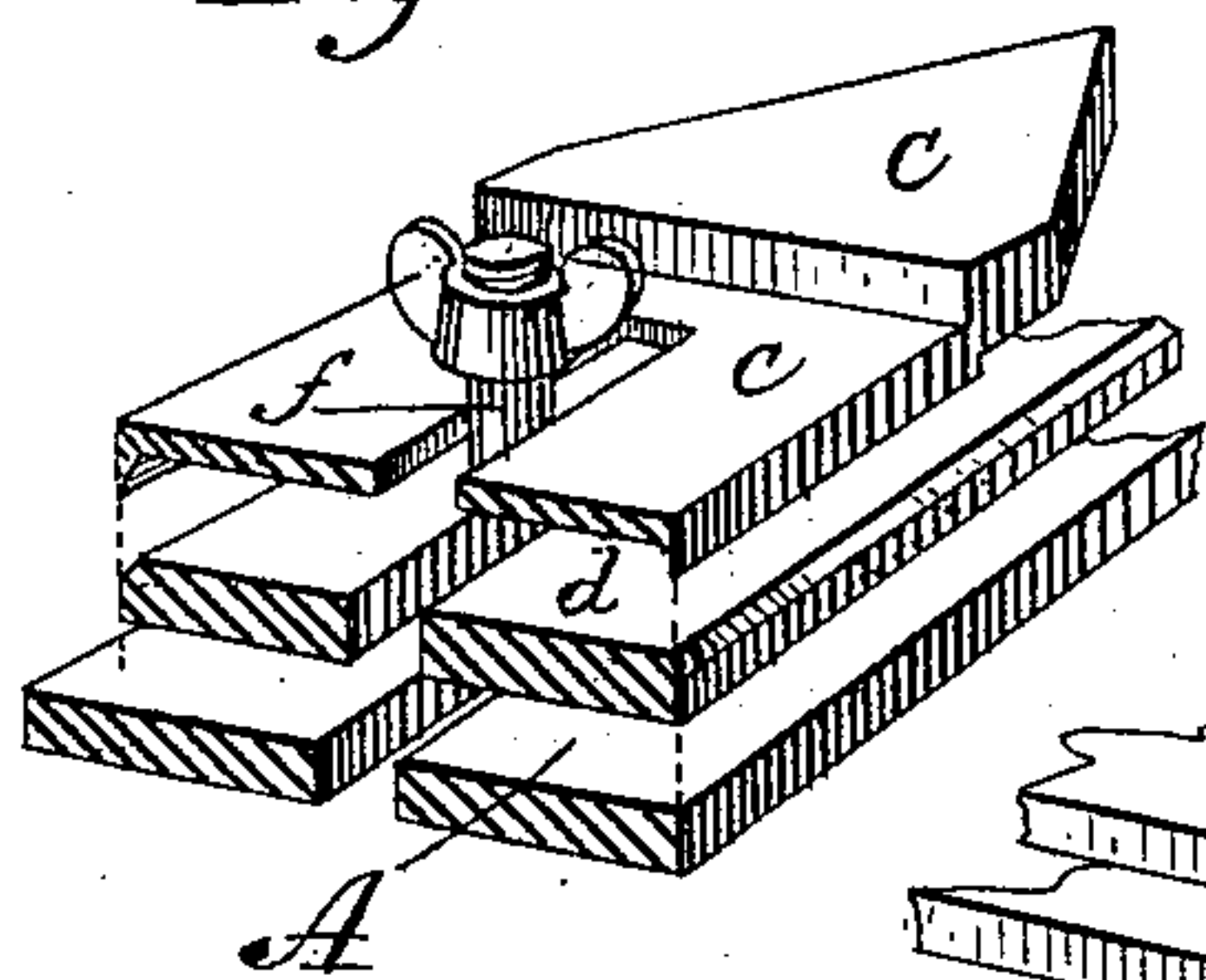


Fig. 5.

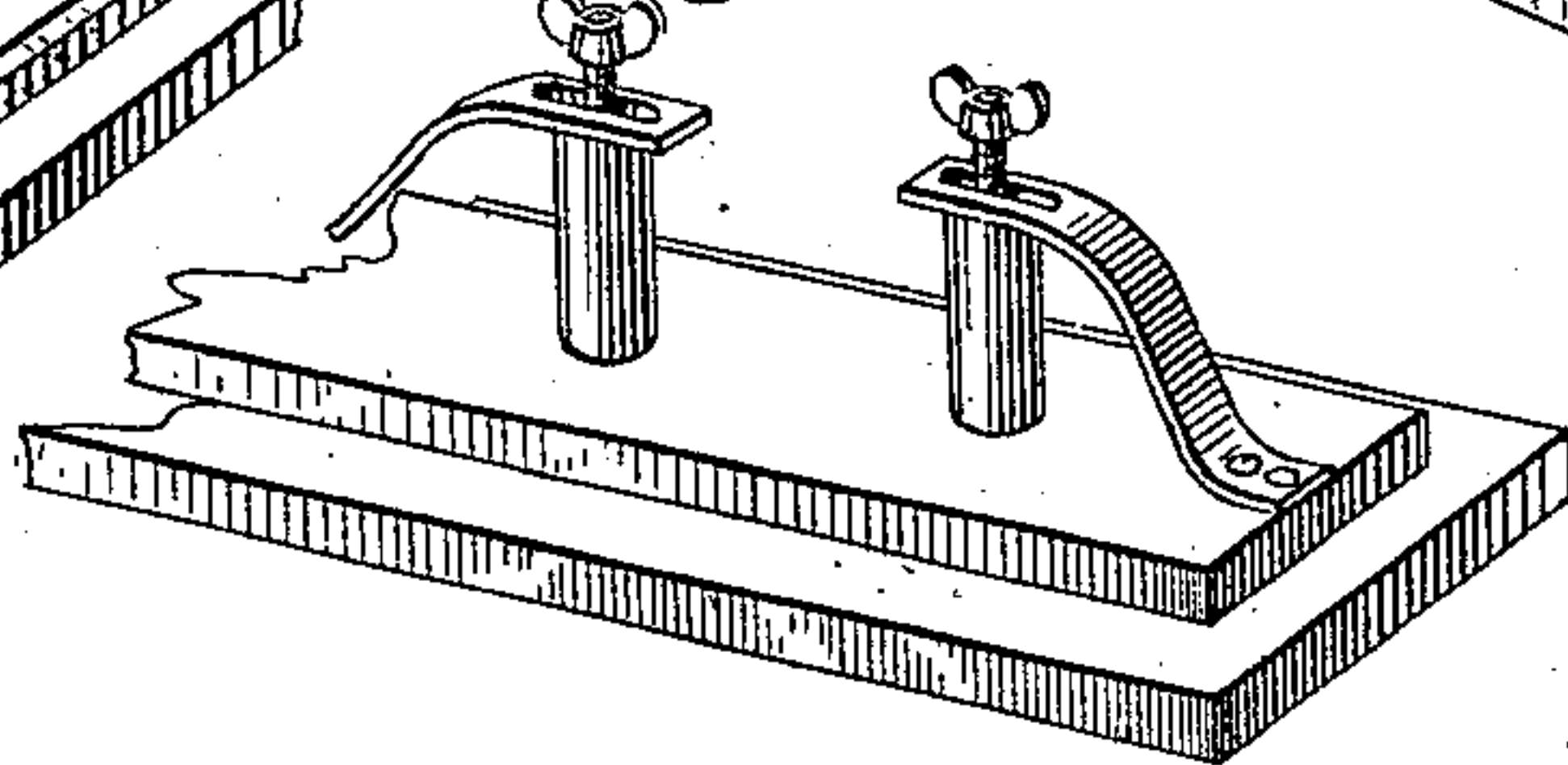
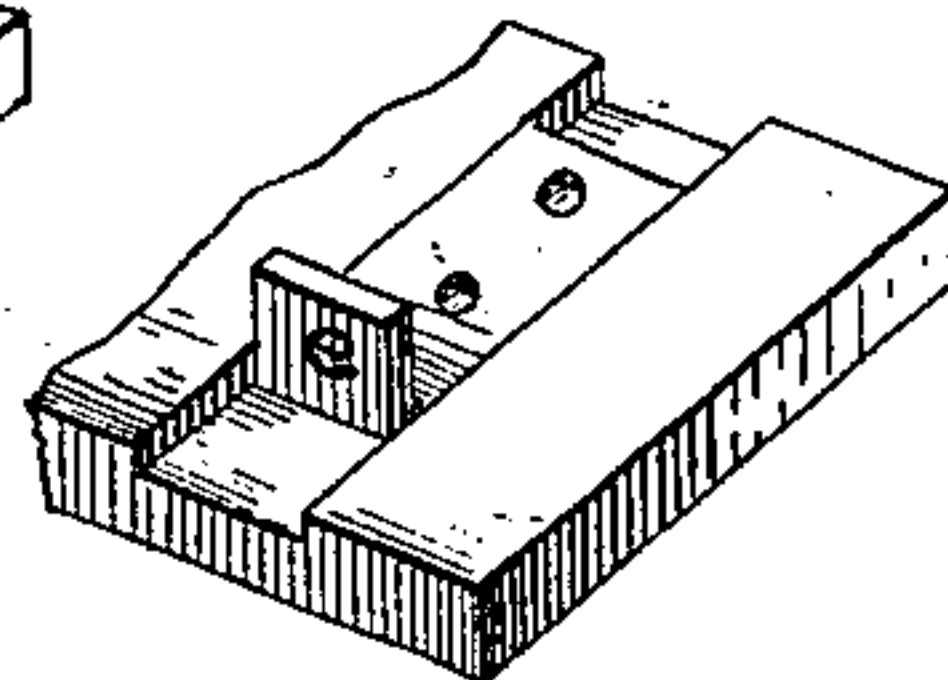


Fig. 4.



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JOHN BRICKETT, OF DANFORTH, ILLINOIS.

CHECK-ROWER.

SPECIFICATION forming part of Letters Patent No. 284,603, dated September 11, 1883.

Application filed June 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN BRICKETT, of Danforth, in the county of Iroquois, State of Illinois, have invented a certain new and useful Check-Rower, of which the following is a specification.

My invention relates to improvements in check-rows in which a grooved wheel carrying the actuating-cord is provided with wings intermittently engaging with lugs upon a bar connected with the reciprocating bar of the seed-valves, for which Letters Patent were granted to me June 22, 1880, No. 229,028; and the objects of my invention are to provide means for adjusting each pair of lugs toward or from each other, for regulating the length of stroke of their supporting-bar, and hence the stroke of the seed-valves; to cause the stroke against the lugs to be directed in a horizontal plane below the end of the bar connecting the lug-support with the reciprocating bar of the seed-planter, so that the lateral pressure of the wings against the lugs will not cause their supporting-bar to rock upon its bearings, and finally to provide lugs detachably connected and adapted to be reversed, so that when an operative face becomes worn by use a new face may be presented without the necessity or expense of substituting new lugs. I attain the objects by devices illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of one end of a check-rower embodying my improvements; Fig. 2, a perspective of the base-bar, upon which is mounted the anti-friction bearings, the sliding bar, and the lugs supported by said bar; Fig. 3, a transverse section through one of the lugs, its supporting-bar, and the base-support; Fig. 4, a perspective of the base-support and the anti-friction lugs, and Fig. 5 a modification adapted to be substituted for the beveled lugs.

Similar letters of reference indicate the same parts in the several figures of the drawings.

In view of the fact that both ends of my check-rower are exactly alike in construction, it will only be necessary for the purpose of this invention to describe one end of the check-rower and its connection with the reciprocating bar of the seed-valves.

A represents a base-bar, which may be secured to the tongue or boxes of a seed-planter,

and supports the operative parts of my check-rower. Mounted upon this base are two uprights, *a a'*, the latter of which is at the extreme end of the bar A, and both are slotted at their bottom for the purpose of providing a guideway for the sliding bar of the check-rower. In and between the uprights *a a'* is journaled a grooved wheel, B, carrying the actuating-cord, and provided upon its periphery with horizontally-extending beveled wings *b b*, one upon each side of the wheel and at opposite points of its diameter, and adapted to alternately engage with beveled lugs *c c*. Upon and with them operates the sliding bar *d*, which bar, as shown, is in three parts, but may be made in one.

Seated in the bar A, at a suitable distance from each other, are L-shaped blocks *e e*, the horizontal faces of which are in a plane slightly above the bar A, and form anti-friction bearings for the sliding bar by relieving its somewhat broad base from contact with the base-bar, and thereby enables a freer movement of the sliding bar. The upright arms of the blocks *e e*, it will be noticed, are upon the opposite side of the sliding bar from the first point of contact of the wings with the beveled lugs, in consequence of which they receive the lateral pressure of the sliding bar by such contact, relieving the friction and wear of the sliding bar upon the uprights, in the slots of which these blocks are held; and, furthermore, as these blocks are independently secured by set-screws or other means to the base-bars, the uprights are relieved from strain resulting from this lateral pressure.

Sliding bar *d*, as shown, consists of two flat metal plates joined by a bar rising in a plane above them, but, as stated, may be cast in one piece, but with the plates and the connecting-bar in the same relative plane, as shown. These end plates are slotted where they support the beveled lugs, so that said lugs may be adjusted toward and from each other by means of a nut upon the end of a bolt, *f*, passing through the lugs and the slots in the bar. The under faces of the lugs are concaved or beveled and the plates correspondingly concaved or beveled, so that the lugs, to a certain extent, straddle and have a lateral bearing upon the plates, the purpose of which is to increase their rigidity and relieve strain upon the

connecting-bolt. As the incline face of the beveled wings upon the actuating-wheel are somewhat elongated, it will be understood that if the lugs engage with the bottom of the incline the stroke of the sliding bar will be made longer, and will be made correspondingly shorter as the lugs are first caused to come in contact with the wings further up the incline. By adjusting the lugs toward or from each other, their point of contact with and relative to the length of the incline may be determined, and the length of stroke of the sliding bar be accordingly regulated. By thus regulating the stroke of the sliding bar, my check-rower is adapted to be used upon seed-planters in which the stroke of the reciprocating bar operating the seed-valves is of differing lengths. I consider such an adjustment an important feature of my invention, for the reason that the seed-valves in every seed-planter must be shifted sufficiently to uncover the ports, and without such adjustment my device might be inoperative by reason of its having too long or too short a stroke for this purpose, especially so in view of the fact that the length of stroke of the seed-valves varies in the different makes of seed-planters. As already described, the beveled lugs are in a plane below the top of the bar connecting their supporting-plates, and also below the end of the rod connecting said bar with the valve-rod of the planter. The object of such construction is to cause the lateral strain exerted by the beveled wings upon the lugs, and hence the bar, to be in a plane below the top of or near the base of the bar, so that these strains may not cause the bar to rock, which it does more or less when a straight bar is used and the lugs are mounted upon its top. It will be noticed that each lug is beveled in opposite directions, and as in time these lugs will become worn and unfitted for successful operation by reason of the friction of the cam-wings, it will be understood that by reversing the lugs a perfect cam-face may

be substituted for a worn one without the necessity of attaching a new lug, the result of which is that much time and expense are saved.

In Fig. 5 is shown a modification of the beveled lugs, which consists of a vertical friction-roller supported in a bracket secured to the sliding rod, and provided with elongated slots to enable the adjustment of the rollers to and from each other for increasing or diminishing the stroke of the sliding bar, as before described. In some respects the vertical rollers are preferable, for the reason that they operate as anti-friction devices, as well as means for operating the sliding bar, and they serve to illustrate one of many modifications which would be the equivalent of the beveled lugs.

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

1. In a check-rower, the combination, with the operating-wheel and the sliding bar, of lugs recessed in, but on a plane below the top of, the sliding bar, and adapted to be intermittently connected with and operated by said wheel, as and for the purpose set forth.

2. In a check-rower, the combination, with the sliding bar and with the operating-wheel, of the adjustable lugs engaging with said wheel, and adapted to limit the stroke of the bar by said adjustment, as and for the purpose set forth.

3. The combination, with the sliding bar and with the actuating-wheel, of reversible lugs longitudinally adjustable upon said bar, substantially as described and shown.

4. The combination, with the sliding bar of a check-rower and with the actuating-wheel, of lugs, each having oppositely-beveled faces, and adapted to be reversed, substantially as and for the purposes described.

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