

(No Model.)

A. B. MOUCK.

BUTT ADJUSTER FOR GRAIN HARVESTERS.

No. 352,930.

Patented Nov. 23, 1886.

Fig. 1.

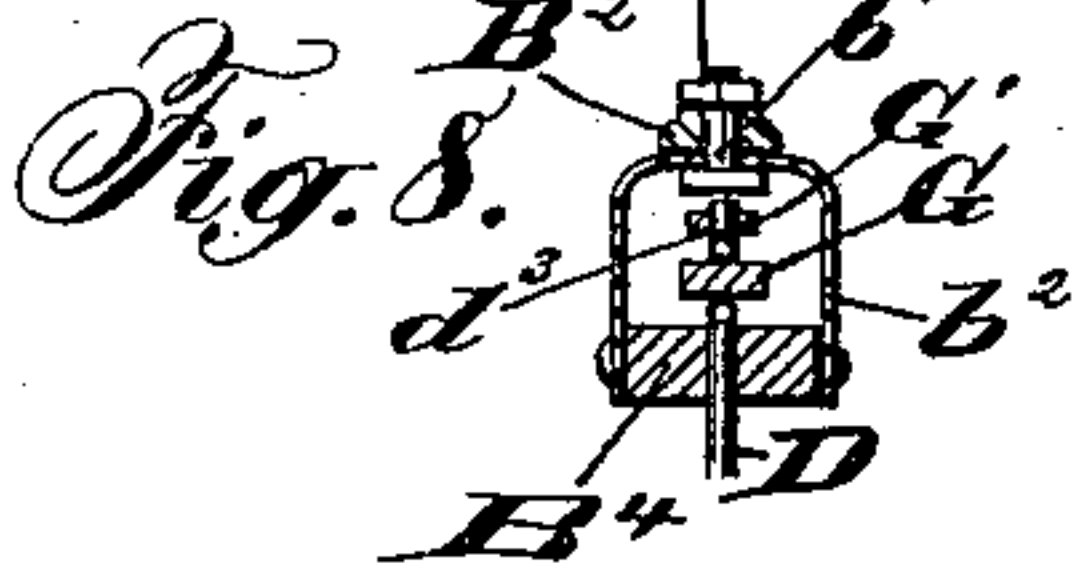
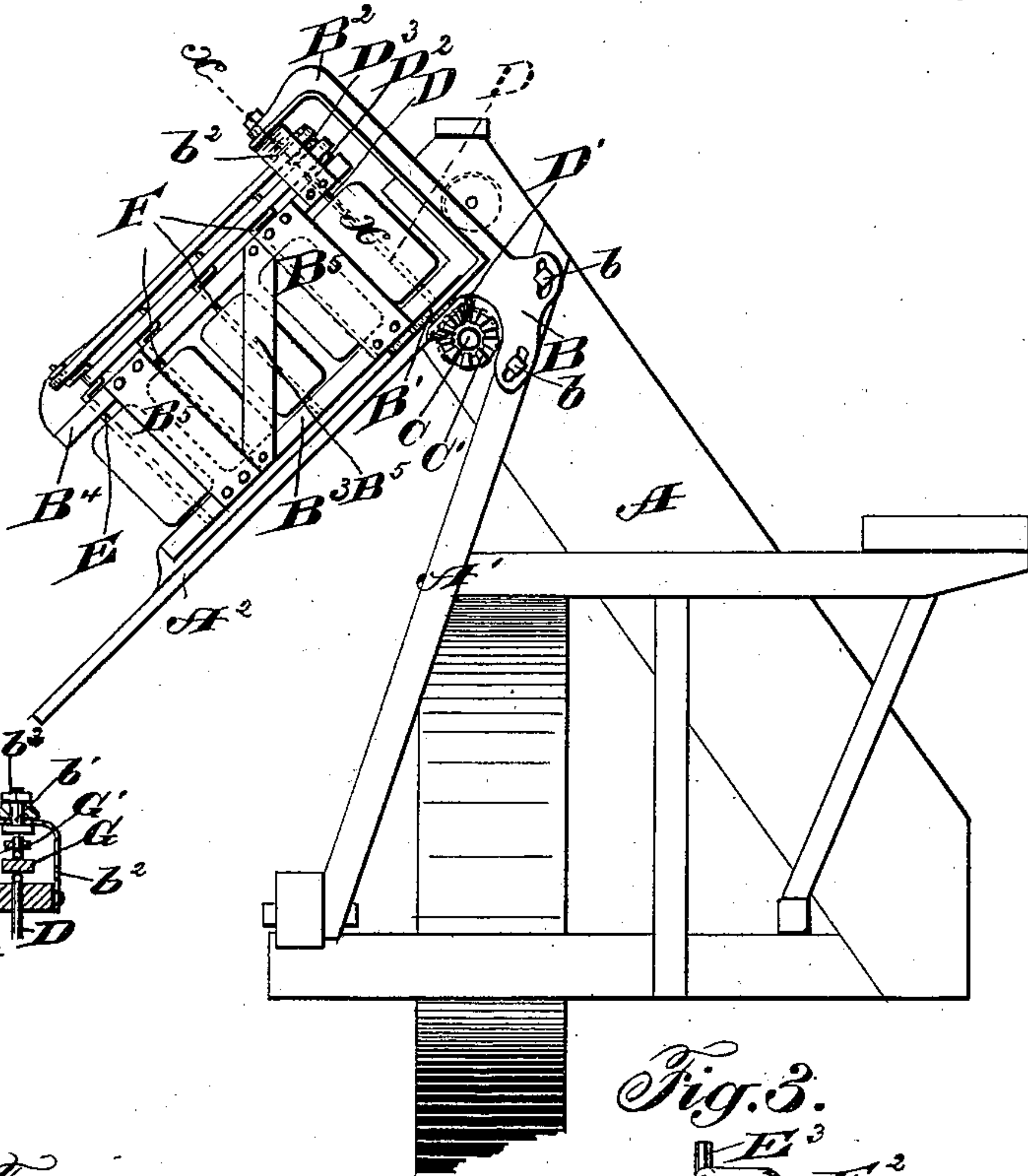


Fig. 3.

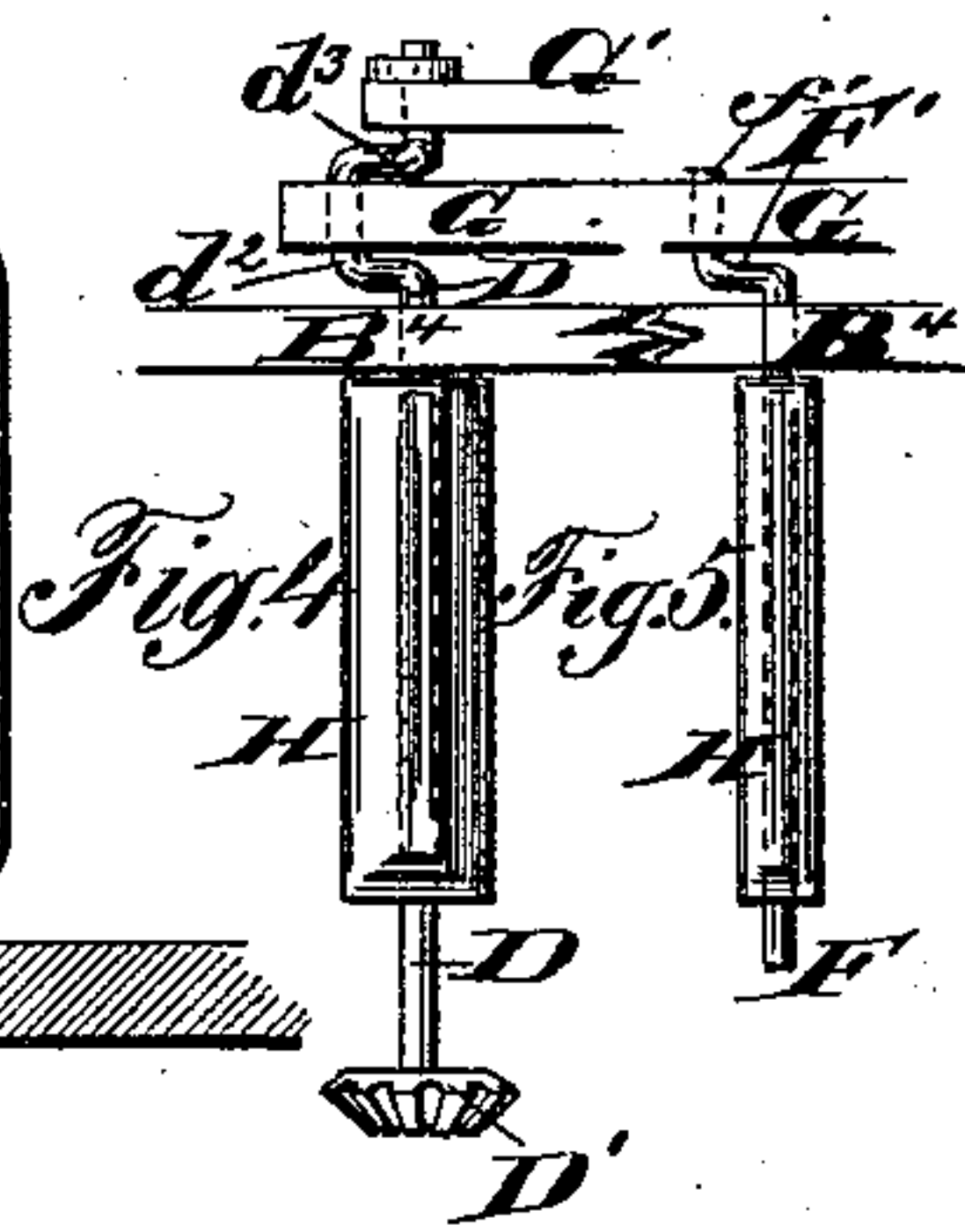
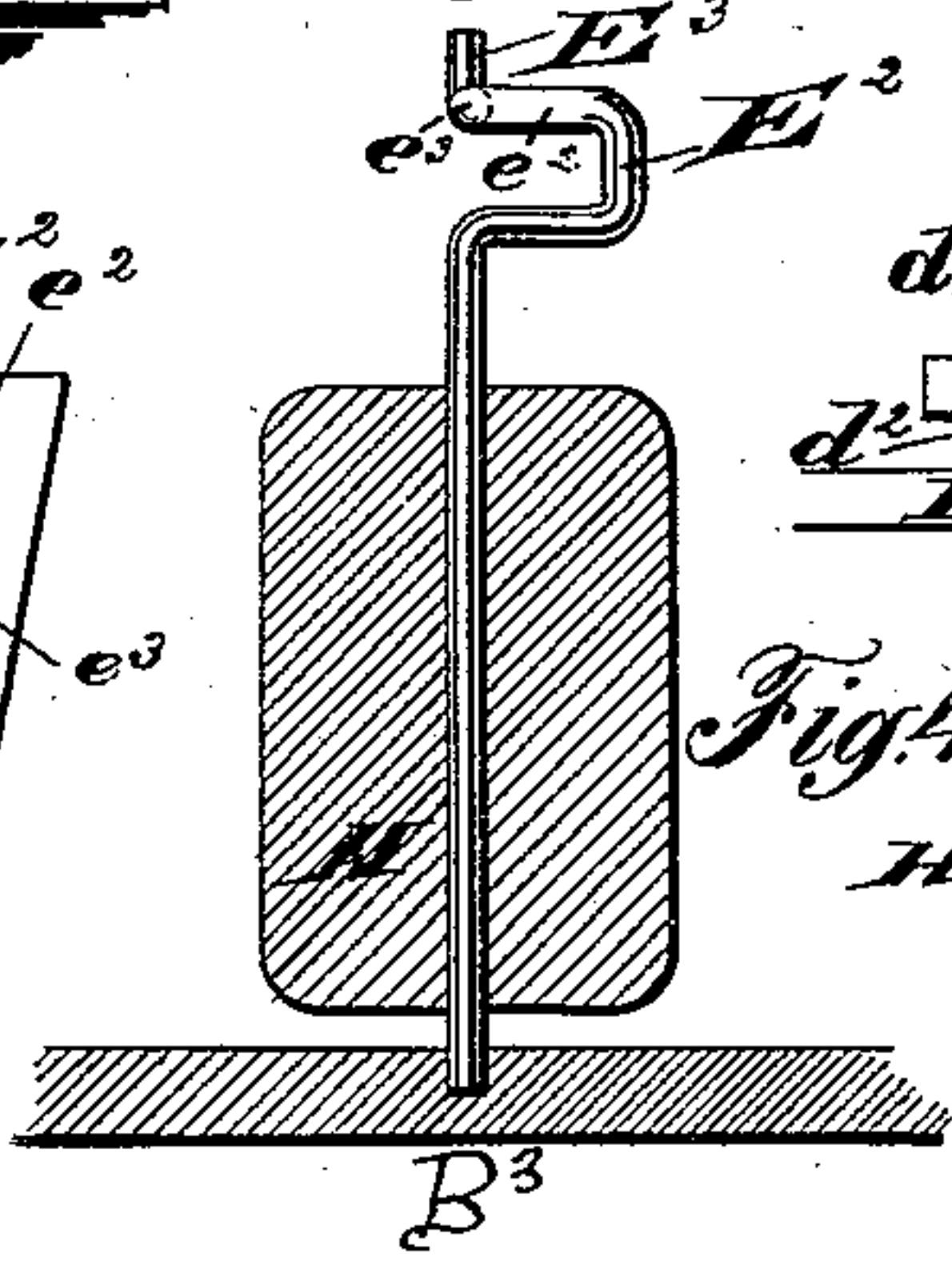


Fig. 6.



Fig. 7.

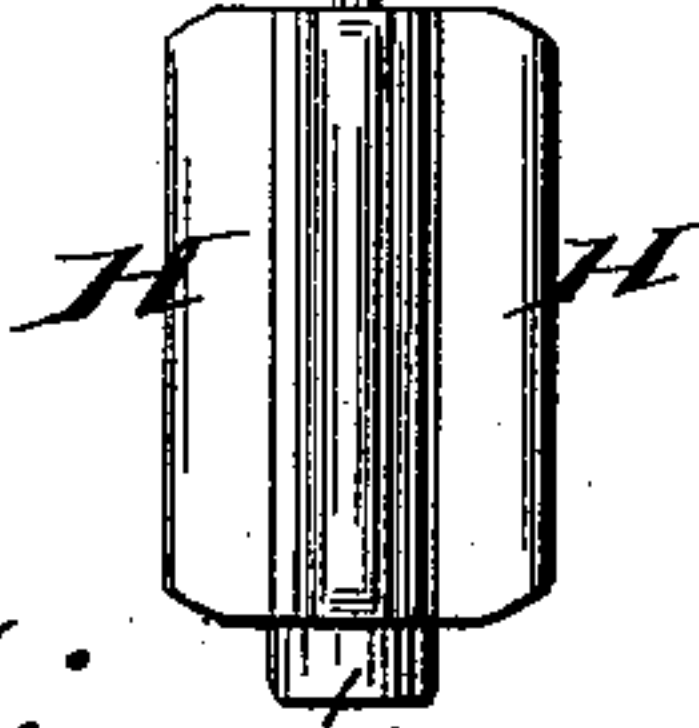
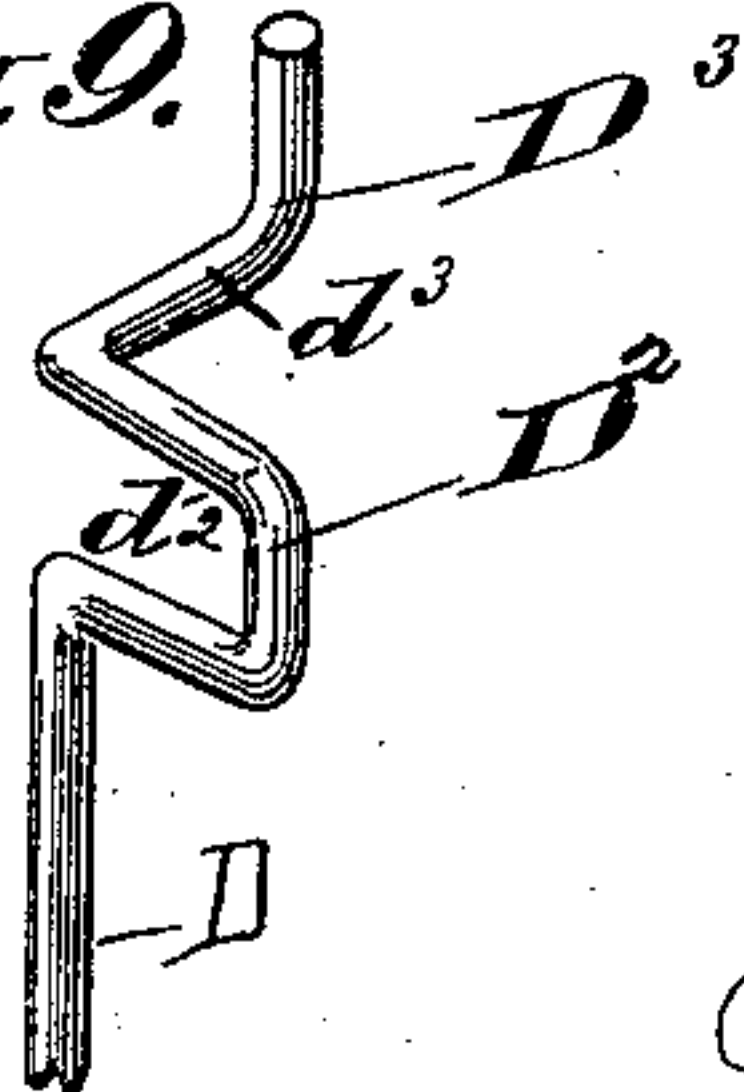


Fig. 9.



Witnesses:
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Chas. S. Burton

UNITED STATES PATENT OFFICE.

ANDREW B. MOUCK, OF FARGO, DAKOTA TERRITORY.

BUTT-ADJUSTER FOR GRAIN-HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 352,930, dated November 23, 1886.

Application filed January 16, 1886. Serial No. 188,785. (No model.)

To all whom it may concern:

Be it known that I, ANDREW B. MOUCK, a citizen of the United States, residing at Fargo, in the county of Cass and Territory of Dakota, have invented certain new and useful Improvements in Butt-Adjusters for Grain-Harvesters, which are fully described in the following specification.

In the drawings, Figure 1 is a front elevation of part of a harvester-frame and drive-wheel, showing my butt-adjuster in position thereon. Fig. 2 is a plan of my adjuster. Fig. 3 is a vertical section of the outermost or lowest adjusting-bat, its crank-shaft, and lower bearing. Fig. 4 is an elevation of the innermost or upper adjusting-bat, its crank-shaft, bevel-gear, and upper bearing, and pitman-bar. Fig. 5 is an elevation of one of the intermediate adjusting-bats, crank-shaft, and pitman-bar, which actuates it. Fig. 6 is a plan, and Fig. 7 is an elevation, of a modified form of bat. Fig. 8 is a section through *xx*, Fig. 1. Fig. 9 is a perspective of a cranked shaft which actuates the bats.

A is the front side board of the elevator-frame of a harvester. A' is the outer brace for the same.

A² is the binder-deck.

B is a bracket secured to the elevator-frame by the bolts *b b*, which pass through it and through said brace A' and side board, A.

C is the shaft of the upper roller of the under elevator belt or apron.

C' is a bevel-gear secured thereto on the front end outside of the elevator case or frame.

D is a crank-shaft journaled in the bracket B, said bracket having the arm B' extending downward and outward, affording the lower bearing of said shaft, and having the arm B² thrown upward and outward, and then bent downward and outward to afford a support for the bearing, hereinafter described, of the upper end of said crank-shaft.

D' is a bevel-gear on the lower end of said crank-shaft, meshing with and driven by the bevel-gear C'.

B³ is a plank or base board pivoted on the arm B' of the bracket B, and extending in the same direction as said arm, and forming a base for the entire adjuster. The shaft D pierces this plank, and constitutes the pivot for the same.

B⁴ is an upper bar, secured to the base board B³ by the cross-bars B⁵ B⁵ B⁵, and having secured to it the bracket or lug *b*², which affords the means for pivoting it on the shaft D, under the overhanging arm B² of the bracket B. This upper bar, B⁴, has a bearing for the crank-shaft D, and for all the other crank-shafts hereinafter mentioned—viz., the lower or outer crank-shaft, E, and the intermediate crank-shafts, F F F, of which there may be any desired number. The shaft D, at the upper end, has two cranks, *d*² and *d*³, the latter above the former, and in axial planes at right angles, or approximately so, their wrists D² D³ being equidistant from the axis of the shaft D. The shaft E is similarly provided with the two cranks *e*² and *e*³, having the wrists E² E³ precisely similar to the correspondingly-lettered parts of the shaft D, respectively. Either pair of wrists, D² or E², is connected by the pitman or link G, and to the other pair, D³ E³, is connected by the pitman or link G'. Said links G and G' are of equal length. The intermediate crank-shafts, F F F, have the cranks F' at their upper ends above their bearings in the bar B⁴, and the wrists *f' f' f'* of said cranks are journaled in the lower link, G, at such points that the said cranks F' F' F' all stand parallel with the lower cranks, *e*² and *d*², of the lower and upper crank-shafts, E and D.

To all the shafts D E F F F are secured any desired number of butters or butt-adjusting bats H. Figs. 2, 4, and 5 show them with but two opposite bats. Figs. 6 and 7 show a form having four bats.

The operation of this device is as follows: The crank-shaft D, receiving rotary motion by means of the gear C', driving the gear D' on said shaft D, revolves the bats H, secured to it, and causes said bats to operate on the butts of the grain in the desired manner. The link G communicates a like rotary motion by means of the several cranks *e*² and *f' f' f'* to the shafts E F F F, and so imparts a like butting action to the bats H, secured to said shafts, respectively. The link G', connecting the cranks *d*³ and *e*³, prevents the reversing of the rotary motion, or the tendency to reverse the same, in communicating it to the shaft E. Such reversal would be possible when only the shafts E and F are employed, or if only one intermediate butter were employed, and the wrist

of its crank-shaft were properly located as to form a fulcrum for the link G; and, although actual reversal would not be possible when two or more intermediate butters are employed, yet the tendency to reverse would cause the crank-shafts to cramp, and when their bearings should become somewhat loose such cramping might reach such a degree as to entirely prevent the operation of the device, and result in breaking either the link G or the driving-gears C' D'. By the use of the two cranks at right angles and the two connecting-links, as described, whenever one of them is over the center and might reverse the motion of the lower shaft the other is at one side and can transmit the rotary motion only in one direction, and therefore prevents the otherwise possible opposite motion derivable from the other crank.

The entire device has the shaft D for a pivot, and may swing on said pivot without destroying or impairing the connection with the driving-power through the bevel-gears C' and D'. Any of the familiar means may be employed for effecting adjustment of the device about said pivot and for securing it in any desired position.

I claim—

1. In combination, substantially as hereinbefore set forth, the butter-frame, two crank-shafts journaled therein having each two

cranks not in the same plane, the link connecting the wrists of the cranks, respectively, nearest to the shaft-bearing, the crank-shafts journaled in the frame having single cranks whose wrists are journaled in said link, and the second link connecting the outer crank-wrists of the two double-cranked shafts, and the train for revolving one of the double-cranked shafts, and the bats on all said shafts.

2. In combination, substantially as set forth, the elevator, and the bracket secured at the upper end thereof, the roller-shaft, and the gear thereon, the double-cranked shaft at right angles with the roller-shaft, and the gear thereon driven by the first-named gear, the frame pivoted on said double-cranked shaft, the second double-cranked shaft and the single crank-shaft journaled in said frame, the bats on said shafts and the link connecting the inner cranks on all the shafts, and the link connecting the outer cranks of the double-cranked shafts.

In testimony whereof I have hereunto set my hand, in the presence of two witnesses, at Fargo, Dakota Territory, this 12th day of December, A. D. 1885.

ANDREW B. MOUCK.

Attest:

JNO. D. BATSON,
MATT FARMER.