J. HIBBS.

Clover Huller.

No. 12,314. Patented Jan. 30, 1855.

Fig. 1.

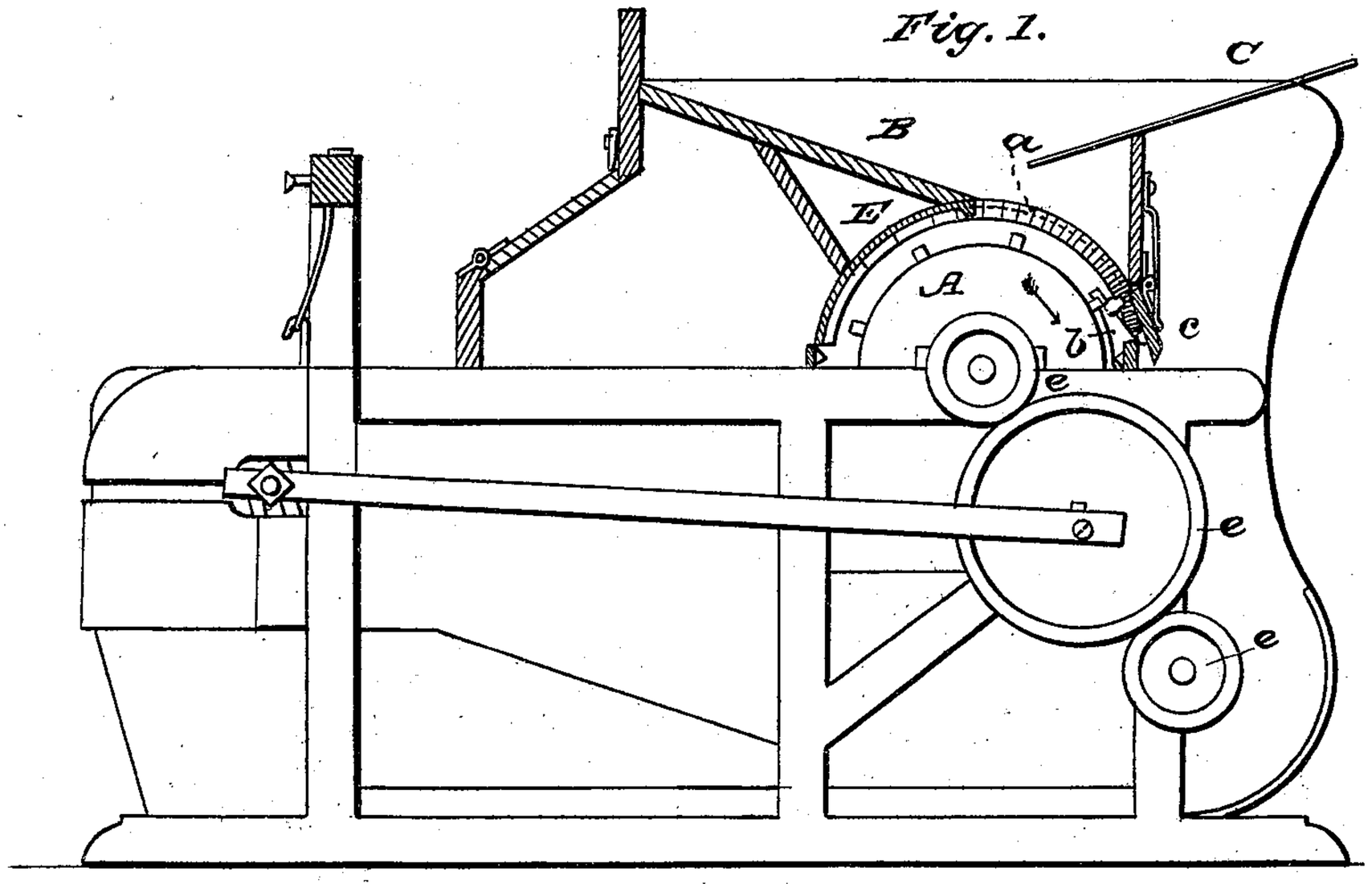


Fig. 3.

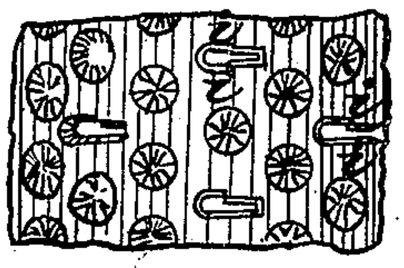
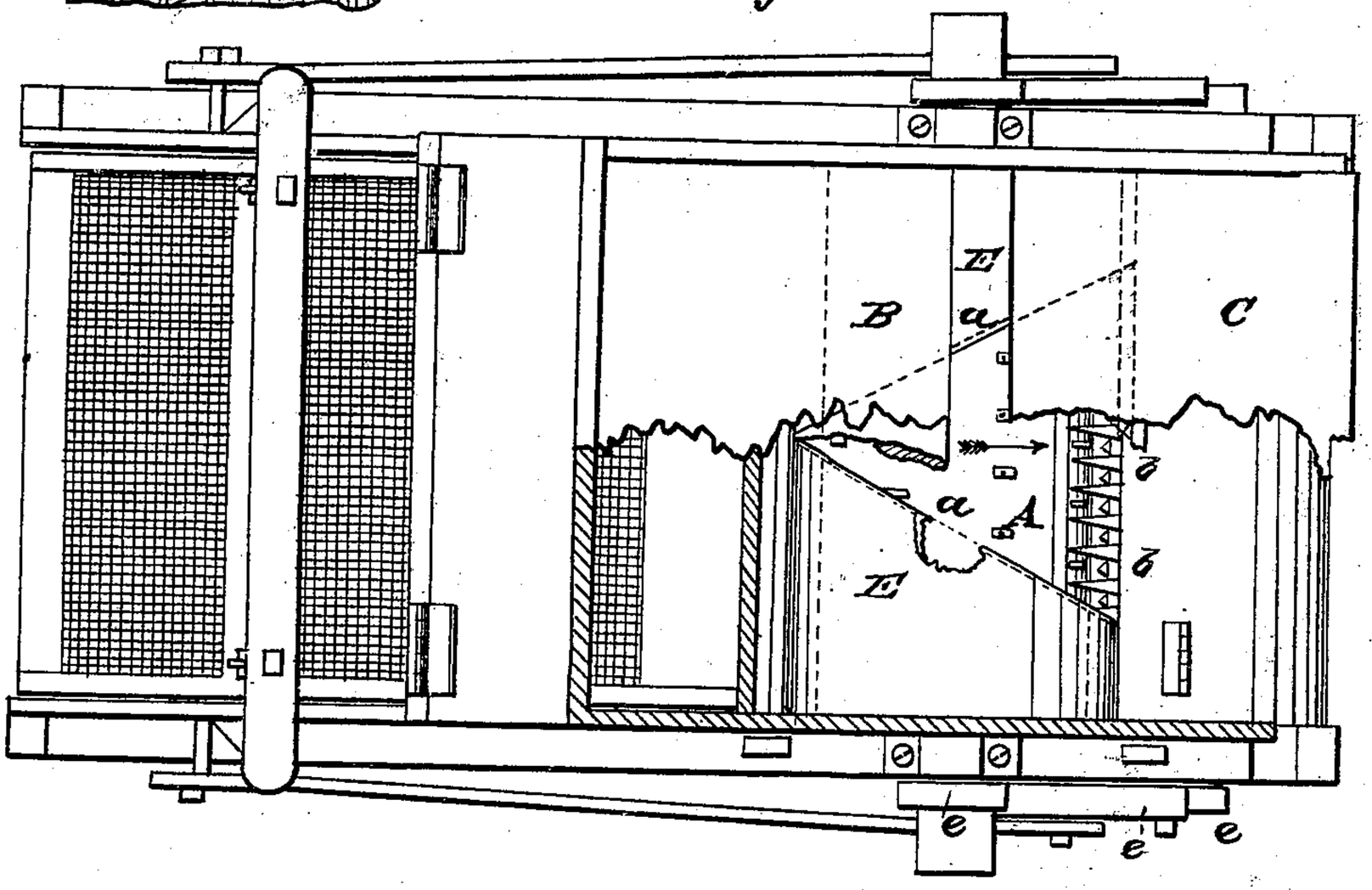


Fig. 4.

Fig. 2.



UNITED STATES PATENT OFFICE.

JONATHAN HIBBS, OF TULLYTOWN, PENNSYLVANIA.

CLOVER-HULLER.

Specification of Letters Patent No. 12,314, dated January 30, 1855.

To all whom it may concern:

Be it known that I, JONATHAN HIBBS, of Tullytown, county of Bucks, and State of Pennsylvania, have invented certain new and useful Improvements in Clover-Hullers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawings, making a part of this specification, in which—

Figure I is a side view or elevation partly in section; Fig. II is a top view, also partly in section; Figs. III and IV are views of parts in detail; and similar letters refer to similar parts throughout.

My invention consists in combining with the cylinder a deflector which shall so guide the clover heads that they shall receive two actions of said cylinder before being discharged, and without being mixed during the second action with the fresh fed straw.

In Fig. I is a side view partly in section showing the general appearance of the machine.

This consists of a frame work boxed up to inclose the fan, riddles, and shakers.

At A is the hulling cylinder covered with the improved teeth and underneath which is the concave bed having also like teeth, cast or fixed upon its surface as usual.

At B is the hopper and at C the feed board. Just over the cylinder A there is a semicircular metal jacket as seen at E in Fig. II. This jacket is cut open in the middle so as to leave a triangular hole, as shown in the top view Fig. II. Two sides of this hole have a flange projecting below and extending down to the surface of the cylinder and following its curve, leaving just room for the teeth to clear, and as seen at (*a*) Figs. I and II. This flange divides, as it were, the top space over the cylinder into three parts, the center part or opening being the place where the clover-heads are fed in. At the base of this triangular opening is the rack for clearing and separating stones, sticks, &c., from the clover-heads. This rack is a kind of comb of coarse teeth the points of which set upward and point toward the cylinder. It is seen at (*b*) Figs. I and II, said rack being secured to the front edge of the concave bed, and thus acts to guard against the passage of anything through which ought not to go. Immediately before the rack are the clearance doors or flaps. These are hinged to fall shut by their own weight, but springs are also applied to insure their action, as shown at (*c*) Fig. I.

The method of communicating motion from one shaft to another is by the friction of the surfaces of the drum-heads, said heads being prepared to increase their adhesion without too much pressure, by applying an elastic covering. This covering is seen at (*e*), and consists of vulcanized rubber which possesses the elasticity and adhesiveness to give the necessary traction to turn one drum from the friction of the other. The teeth before mentioned as of improved form are shown in the detached views Figs. III and IV, Fig. III being a top view, and Fig. IV a side view. They are flat on their sides and greater in length than width, and also of different degrees of thickness, thus forming a break on each side as shown at (*i*). The thinnest part of the teeth is placed so that that edge will be directed to meet and resist the passage of the clover-heads. Thus as the teeth on the cylinder pass by on each side the small angles (*i*) have an additional effect to cut and tear the heads apart and let the seed go free.

The operation is as follows: Motion being given to the hulling cylinder A in the direction of the arrows, the fans, riddles, shakers, &c., will all be set going. The clover-heads are then thrown in the hopper B and settle down upon the cylinder A through the triangular opening formed by the flanged sides of the shield or covering piece E. The teeth on the cylinder carry the clover-heads down and pass all through the teeth of the screen comb (*b*), where all stones and other matters which would tend to clog or break the machine are separated and thrown out. Thus the clover passes to the concave bed to get the threshing operation. After passing once over the concave it is usual to allow it to be discharged from the old machines, and after clearing out whatever seed may have been disengaged from the whole batch to pass the chaff through again. In my machine however the chaff is not allowed to go out yet, but the cylinder takes it up to pass over once more but without allowing it to be mixed with the fresh feed. This is the object of the flanges (*a*). As the chaff strikes the point where the two sides of the triangle meet it is spread over toward the ends of the cylinder which carries it around and passes it between the concave near its ends,

when it is allowed to be discharged, while fresh material is being fed in at the center. Thus it will be seen that I get two actions of the machine upon the straw with once handling, thereby saving the necessity of putting the chaff through a second time and saving also both time and labor in the operation.

What I claim is—

Combining with the concave shell two flanges diverging from a central point, and so acting as to divide the chaff from the fresh fed straw during the time that the former is passing a second time around the cylinder, substantially as described herein.

JONATHAN HIBBS.

Witnesses:
S. H. MAYNARD,
JAMES L. ROBERTS.