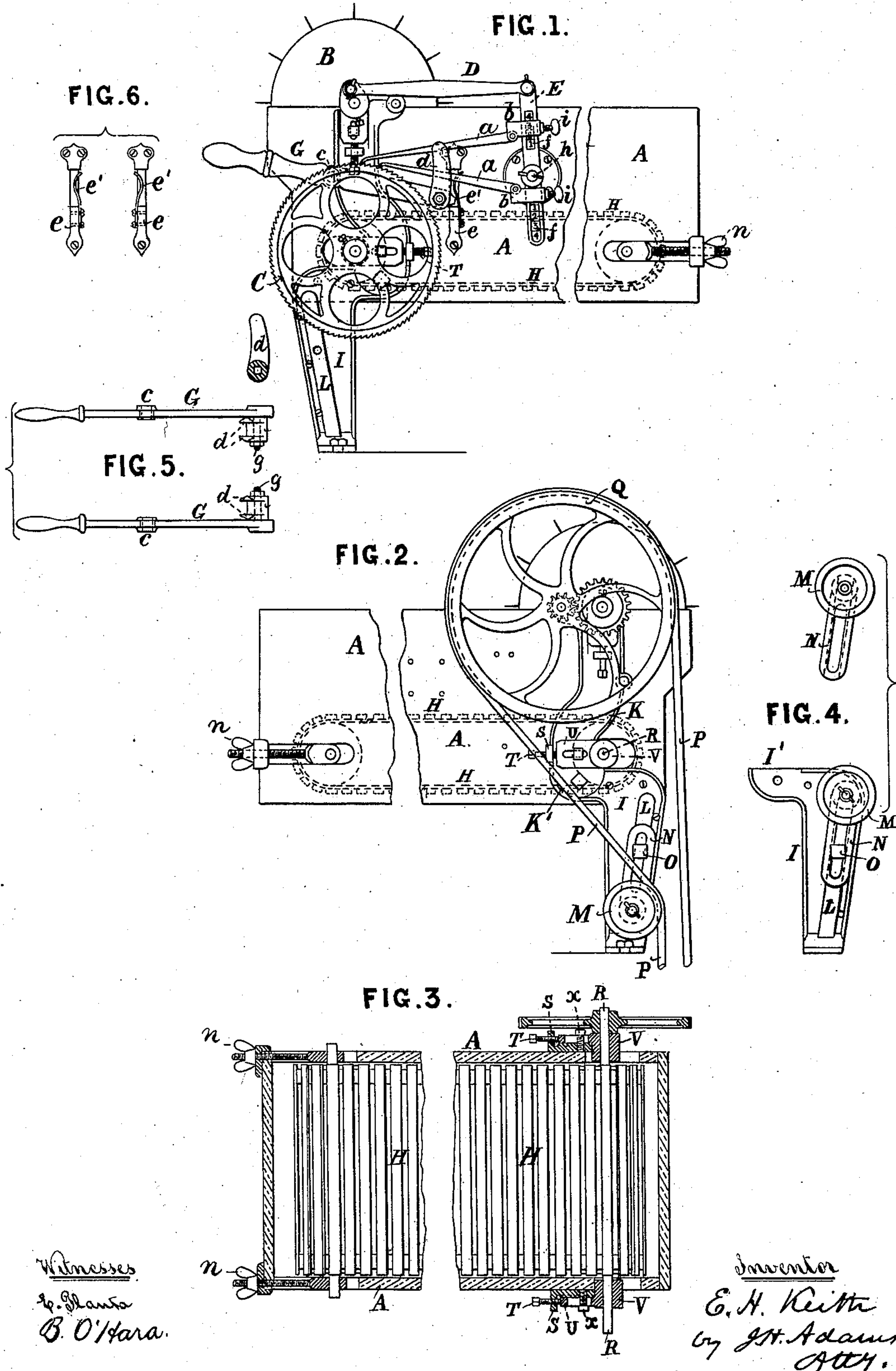


(No Model.)

E. H. KEITH.
COTTON GIN FEEDER.

No. 258,927.

Patented June 6, 1882.



UNITED STATES PATENT OFFICE.

EDWIN H. KEITH, OF BRIDGEWATER, MASSACHUSETTS, ASSIGNOR TO THE
EAGLE COTTON GIN COMPANY, OF SAME PLACE.

COTTON-GIN FEEDER.

SPECIFICATION forming part of Letters Patent No. 258,927, dated June 6, 1882.

Application filed August 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWIN H. KEITH, of Bridgewater, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Cotton-Gin Feeders, of which the following is a specification.

My invention relates to certain improvements in that class of machines known as "cotton-gin feeders."

Machines of this class as heretofore constructed have been very bulky, and it is a matter of great importance that they should be so constructed as to be easily taken apart for transportation, and at the same time so as not to admit of any errors in setting them up for use.

As it is often desirable to change the applied power from the right-hand side of the machine to the left-hand side, it becomes a necessity to construct the several parts so as to enable them to be reversed wherever they may be required for use, thereby allowing all apron-feeders to be made alike without reference to the side to which the power is to be applied.

My invention also relates to a means of quickly and accurately regulating the speed of the travel of the apron while the machine is in operation.

Referring to the drawings, Figure 1 is a side elevation of a machine embodying my improvements. Fig. 2 is an elevation of the opposite side of the same. Fig. 3 is a plan view of the apron and its attachments. Fig. 4 is a detail view of one of the legs or supports, showing the adjustable attachment for tightening the belt. Figs. 5 and 6 are detail views of the lever and the bar and spring for holding the lever when the pawls are elevated.

A represents the casing of the machine.

B is the feeding-cylinder.

C is the ratchet-wheel, which is actuated by the pawls *a a*.

E is a rocker-beam, journaled on a shaft, *h*. Motion is imparted to the rocker-beam by means of the connecting-rod D, attached to an arm on the shaft of cylinder B. Upon the rocker-beam E are two sliding boxes, *b b*, which are held in place by thumb-screws *i i*. To the sliding boxes *b b* are pivoted the pawls or dogs

a a, which extend forward and engage with the ratchet-wheel C, which latter is attached to the shaft of the forward drum over which the apron H passes. By adjusting the boxes *b b* nearer together or farther apart on the rocker-bar E the speed of the apron is increased or lessened, as desired. The boxes *b b*, it will be seen, are adjustable independently one from the other. In order to insure an accurate relative adjustment of the boxes *b b* on the rocker-shaft E, I construct the latter with a longitudinal recess on each part above and below the center bearing, in which recesses I cast marks or figures 1 2 3 4, as many as may be necessary, so that the position of each pawl may be readily and accurately gaged or adjusted on the rocking bar E, even while the machine is in operation.

G is a lever, pivoted at *c*, and has upon its inner end two bars or horns, *d*, which extend upward and serve as guides to the pawls *a a* to prevent any lateral motion and to lift the dogs off from the ratchet-wheel C, by which the motion of the apron is stopped. The inner end of the lever G is constructed with a square hole in each side or through the lever, in which is fitted a stud, *g*, the said stud also fitting in a corresponding hole in the head of the horns or guides *d*, so that the said lever can be readily attached to either side of the casing, as desired, the two positions being shown in Fig. 5.

e is a bar secured to the side of the machine, and is provided with a spring, *e'*, over which the inner end of the lever G passes when the handle is pressed down and by which the lever is held up, and at the same time holding the dogs *a a* out of contact with the ratchet-wheel C. The portion of the bar *e* in which the spring *e'* plays is recessed, and the holes in which the screws pass which fasten the spring to the bar are made so that the spring can be taken off from one side and screwed to the opposite side, as indicated in Fig. 6. By this means the bar *e* can be readily changed from one side of the casing to the other, as circumstances require.

I represents a leg or support for the front part of the machine, there being one on each side. It is made so as to be readily attached

to and detached from the machine. The part I' passes up between the lower end, K', of a metal bracket, K, and the casing A, to which latter it is further secured by screws. By this means the machine is made to occupy much less space when packed for transportation, the legs being detached and packed with the casing, and when required for use can be readily attached by an ordinary workman.

M is a pulley, over which passes an endless belt, P, by means of which motion is imparted to the wheel Q from any suitable source. The pulley M is attached to a slotted link or bar, N, which slides upon a rib, L, extending lengthwise of the leg I, and is held in position on said rib by means of a screw-nut, O. By moving the pulley and bar up or down the pulley is made to bear more or less upon the belt P, and thus tighten it, as required. Should greater tension be required than when the pulley M is in the position shown in Fig. 2 it can be pushed up the rib L and secured by the bolt O; but should that not be sufficient it can be reversed, as shown at Fig. 4, and secured in the desired position. In Fig. 2 it is shown at its lowest point, and in its highest in Fig. 4.

H is the feed-apron, which is tightened up in the ordinary manner at the end of the machine by the thumb-screws *n*. Means are shown for adjusting the shaft of the forward drum for insuring the parallelism of the apron with the sides of the casing; but to this I make no claim.

When it is desired to transfer the power from one side to the other the whole of the gear-

ing is taken off and placed on the opposite side, which can be accomplished by any ordinary workman.

What I claim as my invention is—

1. In a cotton-gin feeder, the support I, having the upper portion, I', in combination with the lower end, K', of the bracket, the casing A, and screws, substantially as and for the purpose set forth.

2. The combination of the lever G, provided with a square hole, the stud *g*, and horns or guides *d*, said stud being fitted in a corresponding opening in the head of the horns or guides *d*, by means of which the lever is rendered reversible, so as to be readily attached to either side of the frame, substantially as set forth.

3. The recessed bracket *c*, provided with the reversible spring *e'*, substantially as and for the purpose set forth.

4. In a cotton-gin feeder, the rocker-arm E, having on its face side, both above and below the center bearing, a recess provided with scale-marks, in combination with the separately-adjustable boxes *b b*, pawls *a a*, attached thereto, and ratchet-wheel C, adapted to be actuated by said pawls, all substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN H. KEITH.

Witnesses:

JOS. H. ADAMS,
JOS. E. CARVER.