(No Model.)

C. GODDARD.

CORN SHELLER.

No. 402,238. Patented Apr. 30, 1889.

Fig. 1.

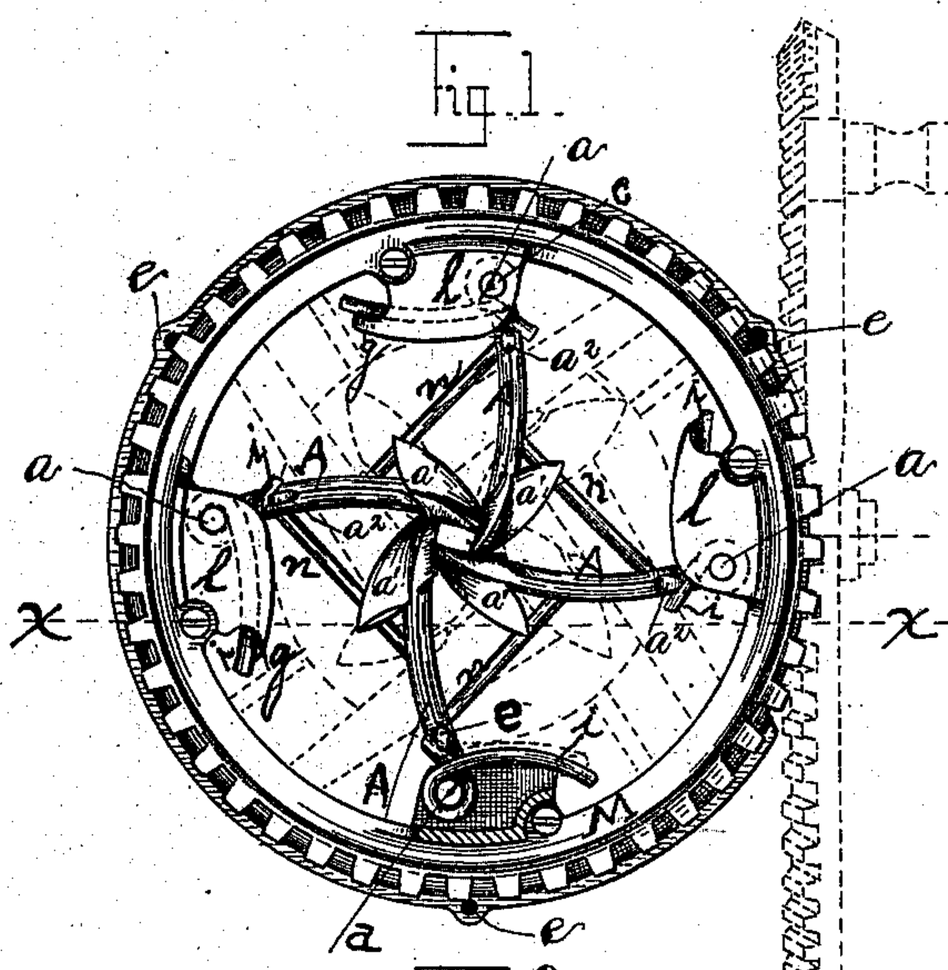

Fig. 2.

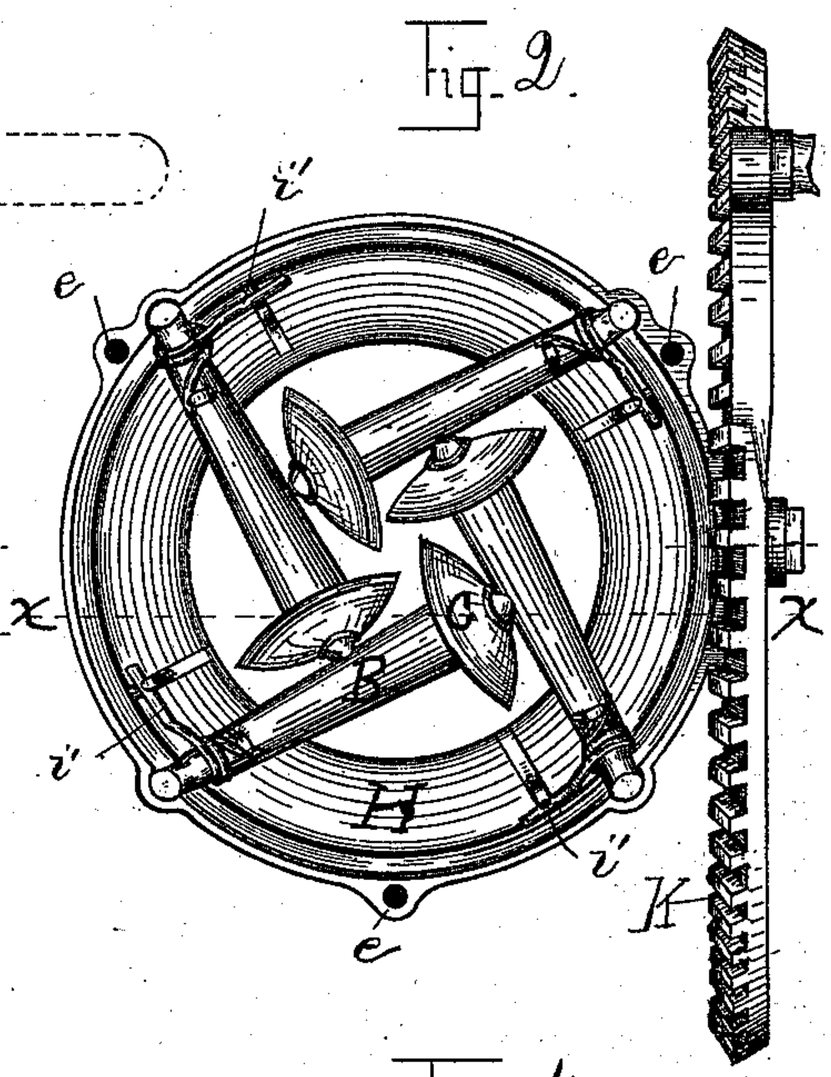

Fig. 3.

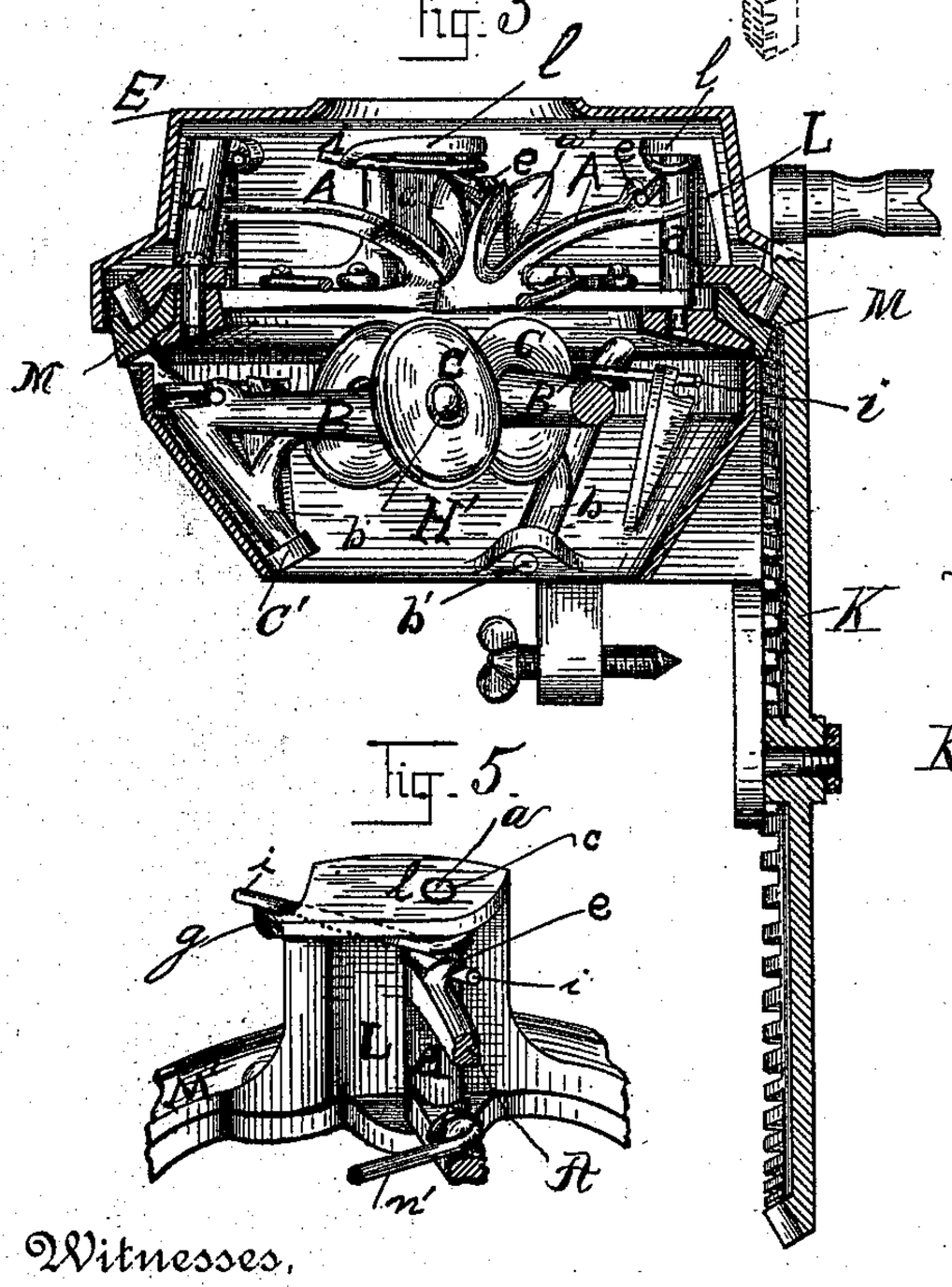

Fig. 4.

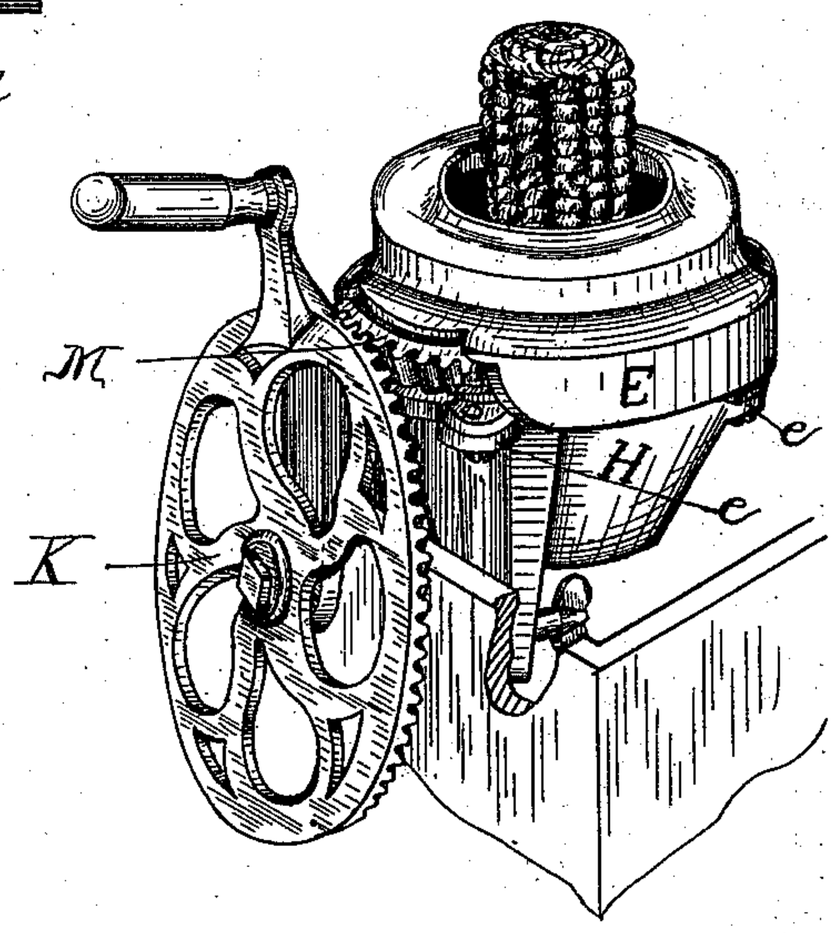

Fig. 5.

Witnesses.

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CURTIS GODDARD, OF ALLIANCE, OHIO.

CORN-SHELLER.

SPECIFICATION forming part of Letters Patent No. 402,238, dated April 30, 1889.

Application filed February 1, 1889. Serial No. 298,325. (No model.)

To all whom it may concern:

Be it known that I, CURTIS GODDARD, a citizen of the United States, residing in the town of Alliance, county of Stark, and State of Ohio, have invented a new and useful Improvement in Corn-Shellers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to improvements in the corn-sheller patented to me by Letters Patent No. 186,830, dated January 30, 1877.

The object of this invention is to improve and simplify the structure of said machine. This object I accomplish by means of the improved form and arrangement of certain parts of the machine, as shown in the accompanying drawings, and described herein; and the matter constituting my invention is specifically defined in the claim.

My corn-sheller consists, mainly, of two working parts.

In the drawings, Figure 1 shows the upper working part of the machine. Fig. 2 shows its lower working part. Fig. 3 is a vertical section through lines *x x* of Figs. 1 and 2. Fig. 4 is a perspective view of my machine; and Fig. 5 is a broken section of the wheel M in Figs. 1 and 3, and shows an enlarged view of the upright journal-supports.

The upper part of the machine (see Fig. 1) consists of the gear-wheel M, having uprights L, with lateral projections *l* and the journals *c*, and the vibrating arms A with journal-posts *a*, which work in the bearings *c* and have flukes *a'* on their inner ends. The inner ends of these arms are forced toward the center of the machine by means of the springs *i*. The arms A are joined by means of the ties *n*. The spring *i* passes around the journal-post *a*, one end being engaged by the lug a^2 on the arm A and the other end being engaged by the hook *g* on the lateral projection *l* of the upright L. The arrangement of the springs *i* can be clearly seen by reference to Fig. 1, where the lateral projection *l* of one of the uprights L is broken away.

The lower part of the machine (see Fig. 2) consists of the main support H, having the journals *b* of the vibrating arms B in the bearings C'. Revolving disks C are secured to the inner ends of the vibrating arms B. The inner ends of these arms are forced to the center of the machine by means of the springs *i*.

The two parts of the machine are secured together by means of screws *e*, and the gear-wheel N meshes with the actuating gear-wheel K. The dotted lines in Fig. 1 represent the relative position of the lower part of the machine when it is assembled with the upper part. The cap E fits over the works of the upper part of the machine and attaches to the lower part, and is removable.

In the use of my machine the ear of corn is pushed into the top of the machine, as shown in Fig. 4, the upper works revolving around the ear, the flukes *a'* tearing the grain from the cob. When the lower end of the cob reaches the disks C, it is gripped between them by means of the arms B and the springs *i'*, and is prevented from turning with the upper wheel, M, while it passes vertically between said revolving disks. In said machine as heretofore constructed the cover was formed integral with the gear-wheel M, the journals of the upper vibrating arms working in bearings in the cover, while the springs, whose function is to press the inner ends of the vibrating arms to the ear of corn, passed nearly twice around the journal-post, both ends pointing in nearly the same direction, one end resting against the cover. In such form of construction the journals were forced against one side of their bearings, causing great friction, and in removing the works from the cover the springs became displaced and could be replaced again only with great difficulty and by the use of appliances especially adapted to put the machine together.

By my improved form of construction the ends of the springs point in nearly opposite directions, they create but little friction in the journal-bearings, the vibrating arms adjust themselves more readily to the various sized ears of corn, the machine feeds more freely and easily, and the cover can be removed for inspection and cleaning of the works without displacing the springs, and when the machine is taken apart the works

can be replaced without difficulty by the use of no other tool than a common screw-driver.

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

The combination, in a corn-sheller, of the springs *i* and the vibrating arms A, with the gear-wheel M, having uprights L, with lateral projections *l*, provided with a hook, *g*, substantially as shown and described.

CURTIS GODDARD.

Witnesses:
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H. K. SHAFFER.