

C. ADAMS.
Corn Sheller.

No. 15,502.

Patented Aug. 12, 1856.

Fig. 1. x.

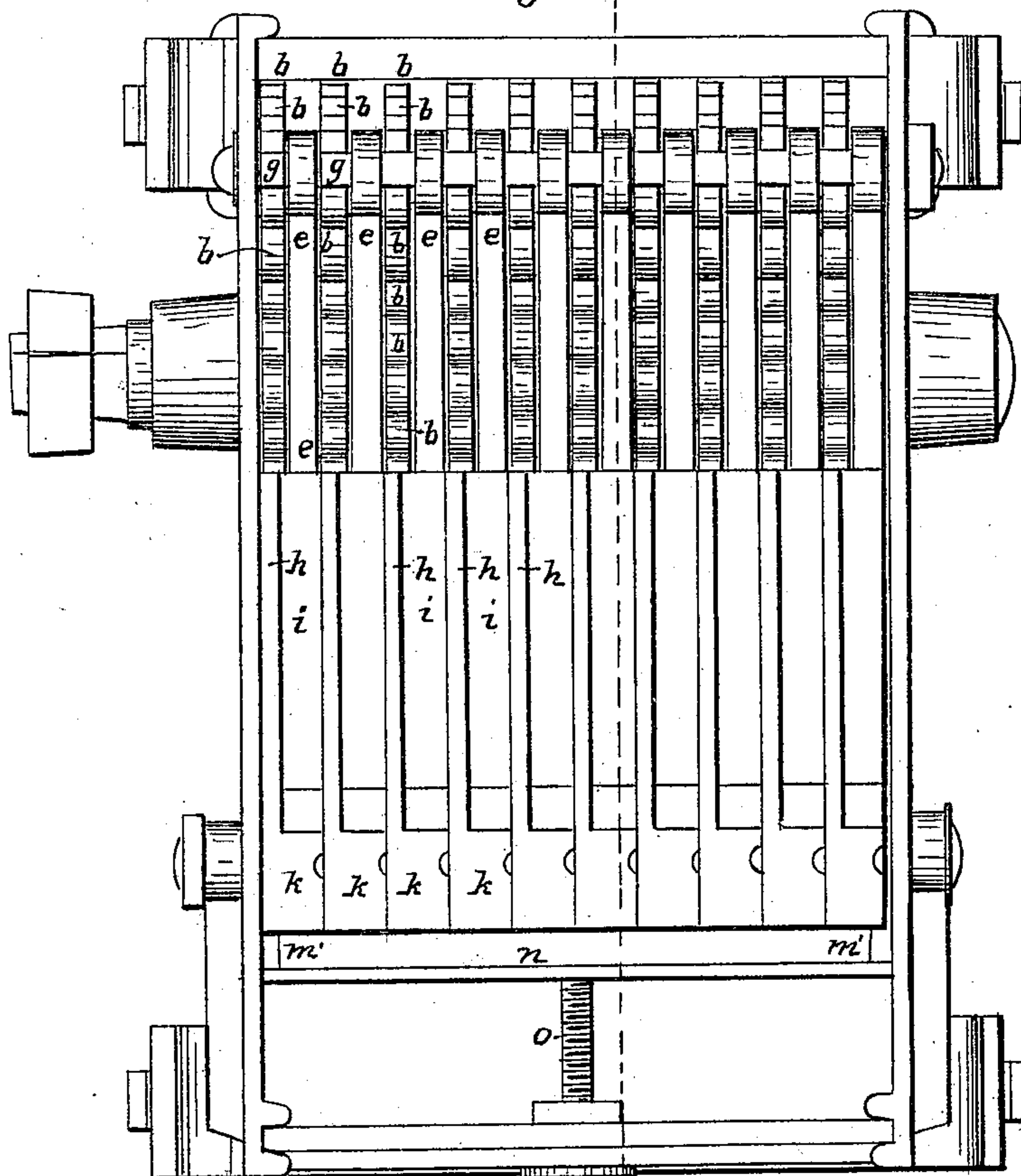
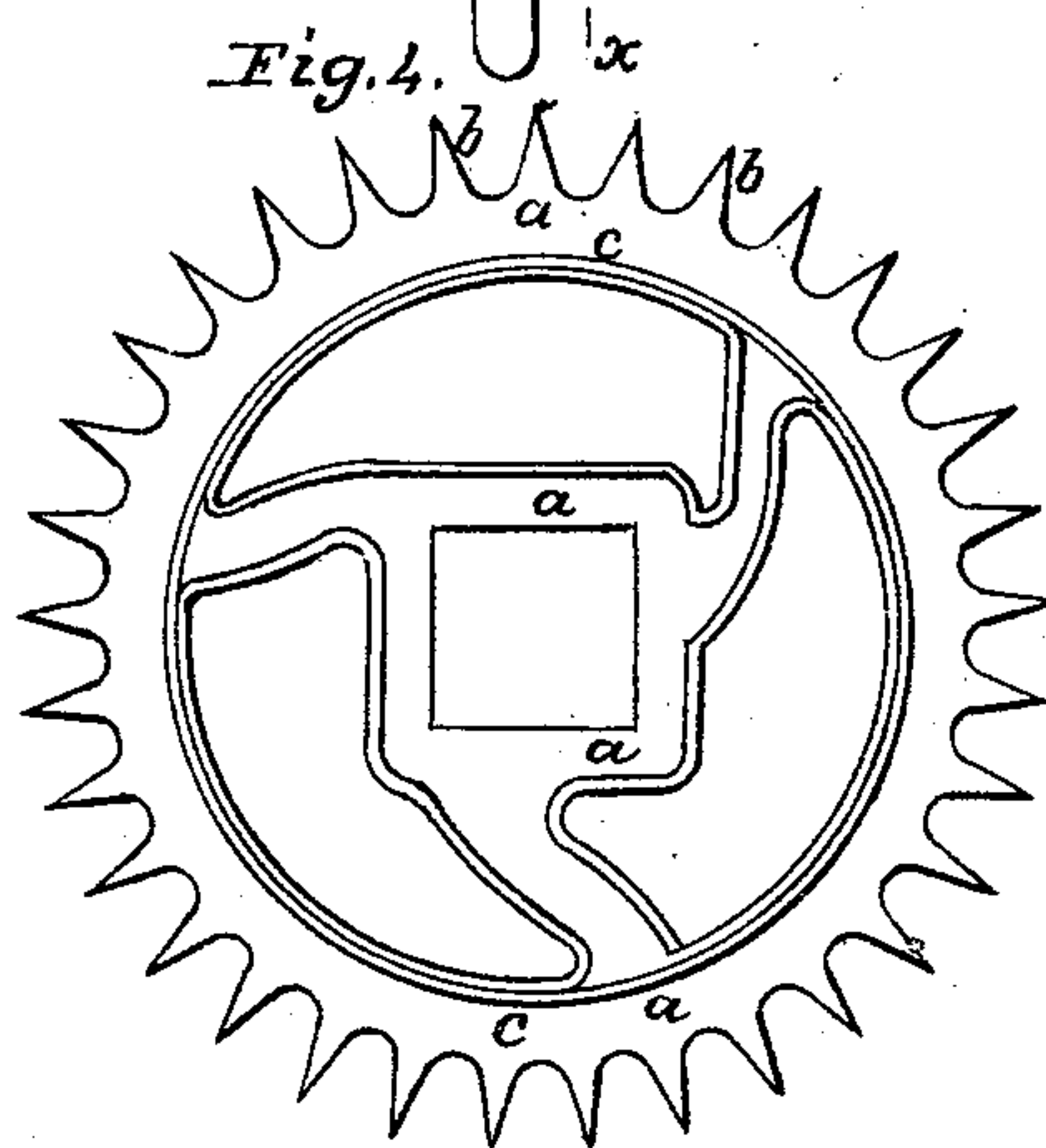


Fig. 4. x



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Fig. 3

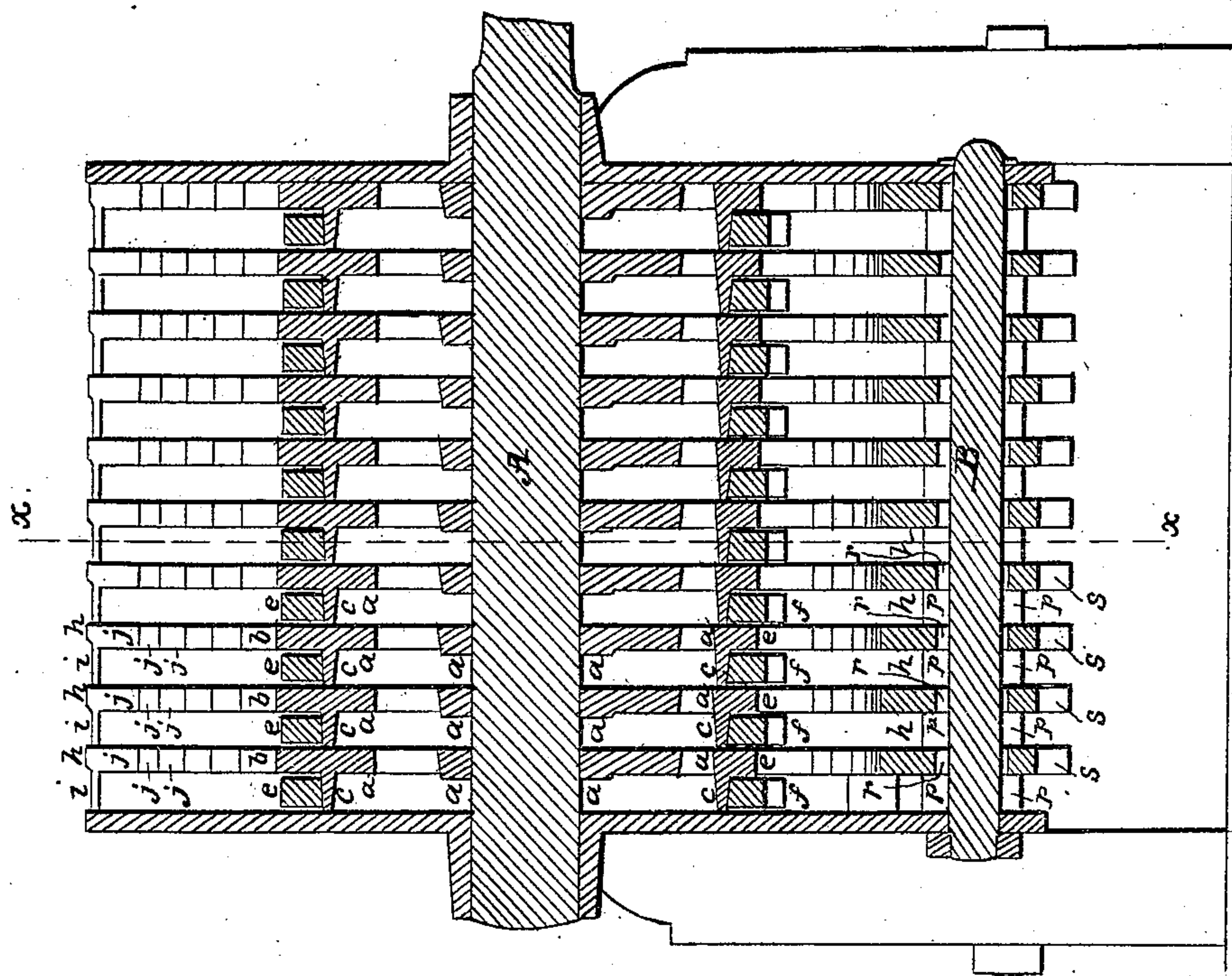
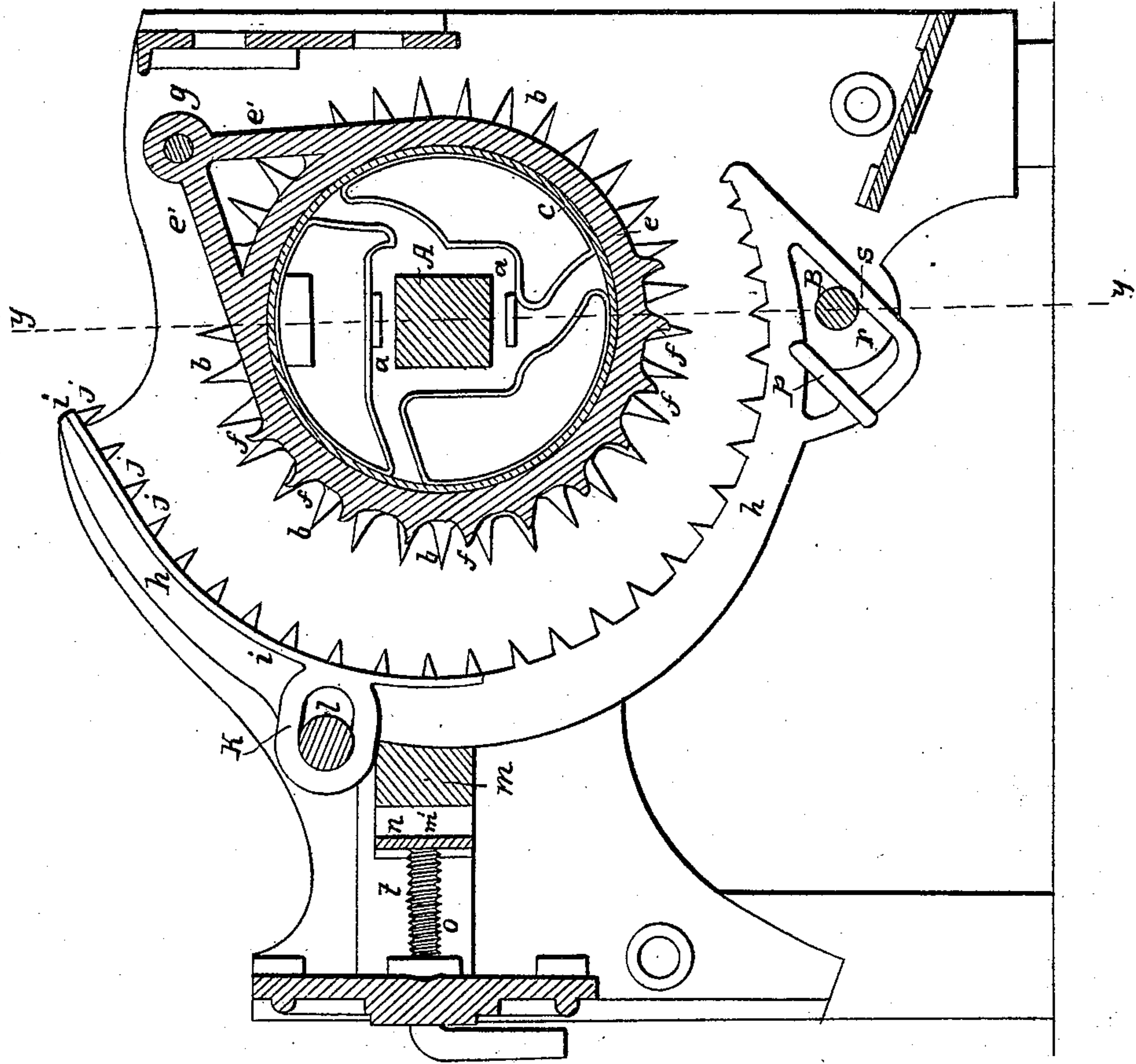


Fig. 2



UNITED STATES PATENT OFFICE.

CALVIN ADAMS, OF OAK HILL, NEW YORK.

CORN-SHELLER.

Specification of Letters Patent No. 15,502, dated August 12, 1856.

To all whom it may concern:

Be it known that I, CALVIN ADAMS, of Oak Hill, in the county of Greene and State of New York, have invented a new and Improved Corn-Sheller; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, Figure 1 being a top view of said machine; Fig. 2, a section in the line $x x$ of Figs. 1 and 3; Fig. 3, a section in the line $y y$ of Fig. 2, and Fig. 4 a side view of a detached portion of the machine.

Similar letters indicate like parts in all the figures.

The cylinder of my improved corn-sheller is composed of a series of independent toothed wheels a, a , combined with each other and with the angular-shaped main shaft A, in the following manner, viz: Each of the toothed-wheels a , has a central aperture of such a size that it can be slipped freely upon the shaft A, and from the base of the teeth b, b , on one side of each toothed wheel there laterally projects a thin flanch c , a distance about equal to the thickness of the wheel, so that should said wheels by themselves be slipped one after the other upon the shaft A, spaces would be left between the series of teeth b, b , of each wheel, about equal to the width of said teeth. But before slipping the said toothed wheels upon their driving shaft I place upon the flanch of each wheel a partially toothed ring e , whose thickness is a little less than the width of said flanch. Each of said partially toothed rings e , has an eye-hole projection e' , from one side of its periphery, which receives a retaining rod g , whose ends are made fast in apertures in the sides of the machine. The teeth f, f , of the rings e, e , radiate from about one half the circumference of the rings, commencing at the bottom and extending upward nearly to the top of their peripheries and being of the curved shape represented in the drawings. The shelling cylinder of my corn-sheller it will therefore be perceived is armed with annular series of rotating teeth which alternate with a semi-annular series of stationary teeth. The said shelling cylinder of my improved corn-sheller is combined with a toothed rack composed of curved independent segments h, h , which are of the shape represented in the drawings. The teeth j, j ,

of the segments e, e , are of the same width as the teeth b, b , of the rotating wheels a, a , and the said segments are arranged and retained in such positions that their teeth are exactly opposite the teeth of the rotating wheels a, a . The said toothed segments h, h , are connected with and supported by the transverse shafts l , and B, as shown in Fig. 2. The said shaft l , passes through oblong openings in the rearward projections k, k , on the upper portion of the after sides of said segments, and the shaft B, passes through angular openings r, r , near the lower extremity of said segments, which are inclosed within the projections s, s . From the upper ends of the segments h, h , down to a short distance below their rearward projections k, k , a thin flanch i , projects laterally from one side of each of the segments, as represented in Fig. 3. The said segment-flanches i, i , correspond in width with the flanches c, c , which project from the toothed wheels a, a , and they consequently serve to keep the upper ends of the segments at such a distance from each other that they will not exert any binding influence upon the toothed rings e, e , while they also serve to keep the teeth of said segments exactly opposite the teeth of the rotating wheels a, a . The lower ends of the toothed segments h, h , are kept at the proper distance from each other by means of the short flanches or lugs p, p , one of which lugs projects laterally from one side of each segment, as shown in Figs. 2 and 3.

A horizontal bar m , whose ends work in grooves or guiding recesses in the sides of the corn sheller, bears against the outer edges of the series of toothed segments h, h , immediately below the projections k, k , on said segments. The said bar m , has rearward projections m', m' , from each end, which projections are connected to a spring plate n , and the said spring plate n , is acted upon by a set screw o , which works in a screw aperture in the rear end of the corn sheller.

The angular opening r , at the lower extremity of each toothed segment h , is of such a size that it will permit the lower ends of the segments to rise to about the distance of half an inch from the extremities of the teeth of the rotating cylinder a , and the oblong openings in the segment projections k, k , are of such a length that the segments can give back to adapt their positions to the

varying sizes of the ears of corn, while each individual segment is at liberty to vibrate on the shaft *l*, as the circumstances may require. It will be perceived that the teeth 5 on the series of rotating wheels *a, a*, act in conjunction with the curved stationary teeth *f, f*, projecting from the rings *e, e*, and the inwardly projecting teeth, *j, j*, of the self adjusting segments *h, h*.

10 What I claim as my invention and desire to secure by Letters Patent, is—

Alternating the annular rows of rotating teeth of the shelling cylinder with stationary toothed rings, when the said shelling cylinder is combined with a rack composed 15 of a series of self adjusting toothed segments, substantially in the manner herein set forth.

CALVIN ADAMS.

Witnesses:

TURNER STROBRIDGE,
WM. PADDOCK.