

A. B. DAVIS & T. CROOK, Jr.

Corn Sheller.

No. 34,410.

Patented Feb. 18, 1862.

Fig. 1

Fig. 2

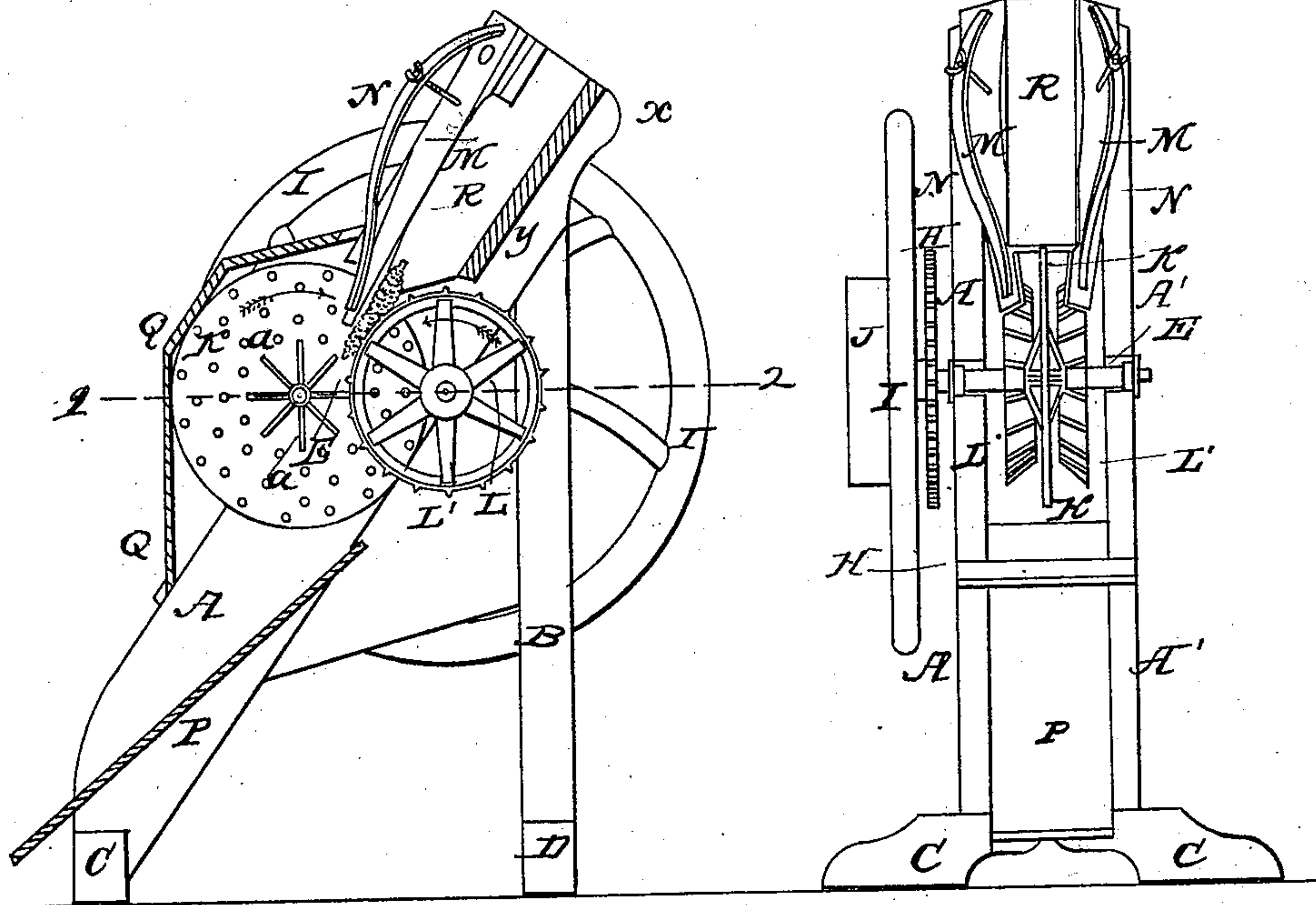
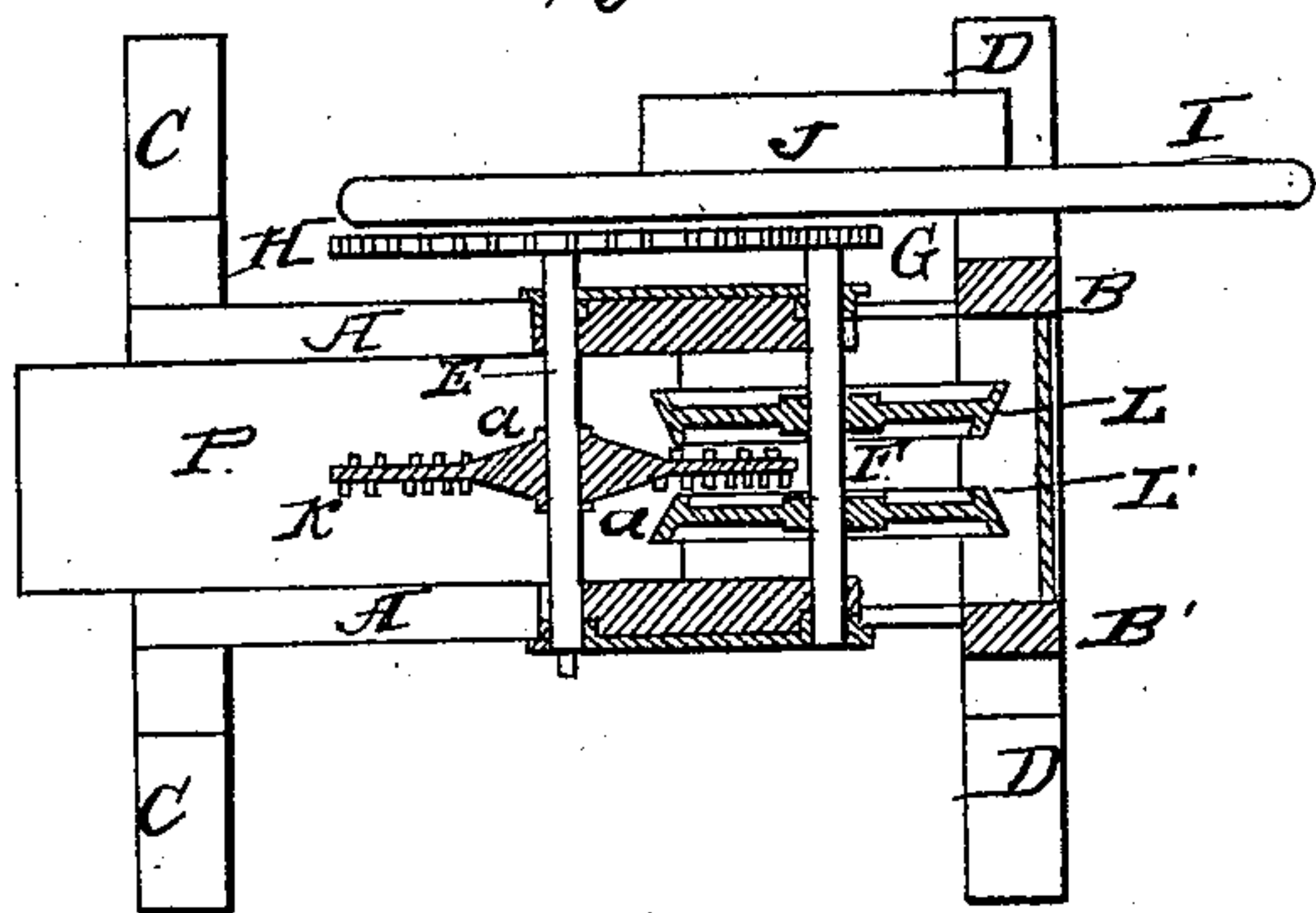


Fig. 3



witnesses
Chas. H. Brown
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UNITED STATES PATENT OFFICE.

A. B. DAVIS AND THOMAS CROOK, JR., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. 34,410, dated February 18, 1862.

To all whom it may concern:

Be it known that we, A. B. DAVIS and THOMAS CROOK, Jr., both of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Corn-Shellers; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention relates to improvements in that class of corn-shellers in which the kernels are stripped from the cobs by the combined action of a plate-wheel with projecting pins, and two or more stripper-wheels; and our improvements consist in certain angular ribs cast or otherwise secured to the plate-wheel for the purpose of causing the stripper-wheels to tear the kernels from the pointed ends of the cobs, as described hereinafter.

In order to enable others skilled in this class of machinery to make and use our invention, we will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a side view of our improved corn-sheller with part of the frame-work removed; Fig. 2, an end view; and Fig. 3, a sectional plan on the line 1 2, Fig. 1.

Similar letters refer to similar parts throughout the several views.

The frame-work of our improved corn-sheller consists of the two inclined beams A and A', secured to two vertical standards B and B', the former being connected together at the lower end by a cross-bar C, and the standards by a similar cross-bar D, and the two cross-bars forming the feet of the frame. The two inclined beams are connected together at the upper ends by the board y, which forms the bottom of the hopper, and by a cross-bar which forms the top of the same. In the opposite beams A and A', or in suitable plates secured to the same, turn the shafts E and F, the latter being furnished with a cog-wheel G, a fly-wheel I, and a driving-pulley J, the cog-wheel gearing into a larger cog-wheel H on the shaft E, on which is the plate-wheel K, furnished on each side with projecting pins and with radial ribs *aa*, the object of which will be particularly alluded to hereinafter. The shaft E is furnished with the two stripper-

wheels L and L', having the inclined peripheries shown in Fig. 3 and transverse ribs or teeth on the said peripheries, the two wheels being sufficiently far apart to allow a portion of the wheel K to revolve freely between them.

The hopper R of the machine is formed at the upper ends of the inclined beams A and A', the beams themselves forming the sides of the hopper, the top and bottom of which are formed by the cross-bars previously alluded to, the hopper, as usual in this class of corn-shellers, having two compartments. The front of the hopper is furnished with the usual elastic boards M M and with adjustable springs N N, for pressing the lower ends of these boards against the cobs of corn as they pass from the hopper.

A board P, forming the chute for directing the stripped cobs to the ground or into any suitable receptacle, is secured to the inclined beams A and A', as is also the detachable shield Q, for inclosing the wheel K.

It will be observed that the action of the stripping-wheels L and L' and the wheel K on the cob and the duty performed by the boards M and their springs N N are the same as in the ordinary corn-shellers of the class to which our invention appertains. It will suffice, therefore, to observe that the boards M force the cobs as they pass from the hopper against one or the other side of the wheel K, as well as against the inclined periphery of one or other of the stripper-wheels L or L', so that as the wheels are turned in the direction pointed out by the arrow, Fig. 1, the wheel K turns the cobs, while the ribs of the stripper-wheel tear off the kernels. In ordinary corn-shellers of this class, however, the wheel K consists of a simple flat disk with a number of projecting pins, so that the cob in passing from the hopper is drawn in a straight line across and parallel with the surface of the plate-wheel by the action of the stripper-wheel, and consequently the kernels are not fully stripped from the pointed ends of the cobs. In order to obviate this evil, we cast on the opposite sides of the wheel K the inclined radial ribs *a a*, previously alluded to, which have a tendency to turn the point of the cob away from the face of the wheel K and to direct it toward the inclined and ribbed peripheries of the stripper wheels, which thus remove the kernels from the points

of the cob, the radial ribs themselves assisting to complete this stripping operation.

We wish it to be understood that we do not desire to claim separately the stripper-wheels L and L', the plate-wheel K, the elastic bars M, and their springs N, as all these parts have been heretofore used in connection with corn-shelling machines; but

We limit our claims to and desire to secure Letters Patent for—

The angular strip *a* on the wheel K, ar-

ranged in respect to the stripper-wheels L and L' substantially as set forth, for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

A. B. DAVIS.

THOS. CROOK, JR.

Witnesses:

HENRY HOWSON,

CHARLES E. FOSTER.