T. H. SPARKS.

APPARATUS FOR HEADING KAFIR CORN, &c.

APPLICATION FILED JAN. 16, 1912.

1,032,088.

Patented July 9, 1912.

2 SHEETS—SHEET 1.

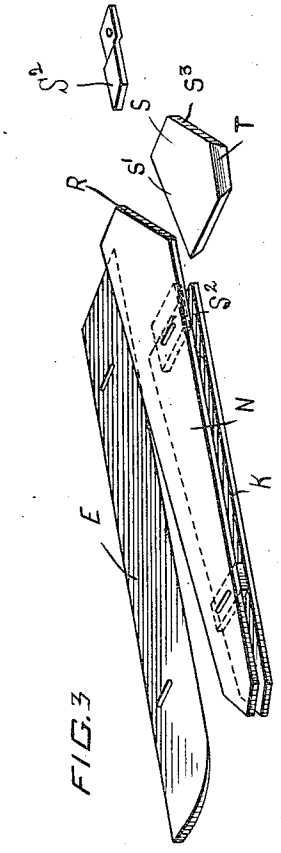


FIG. 3

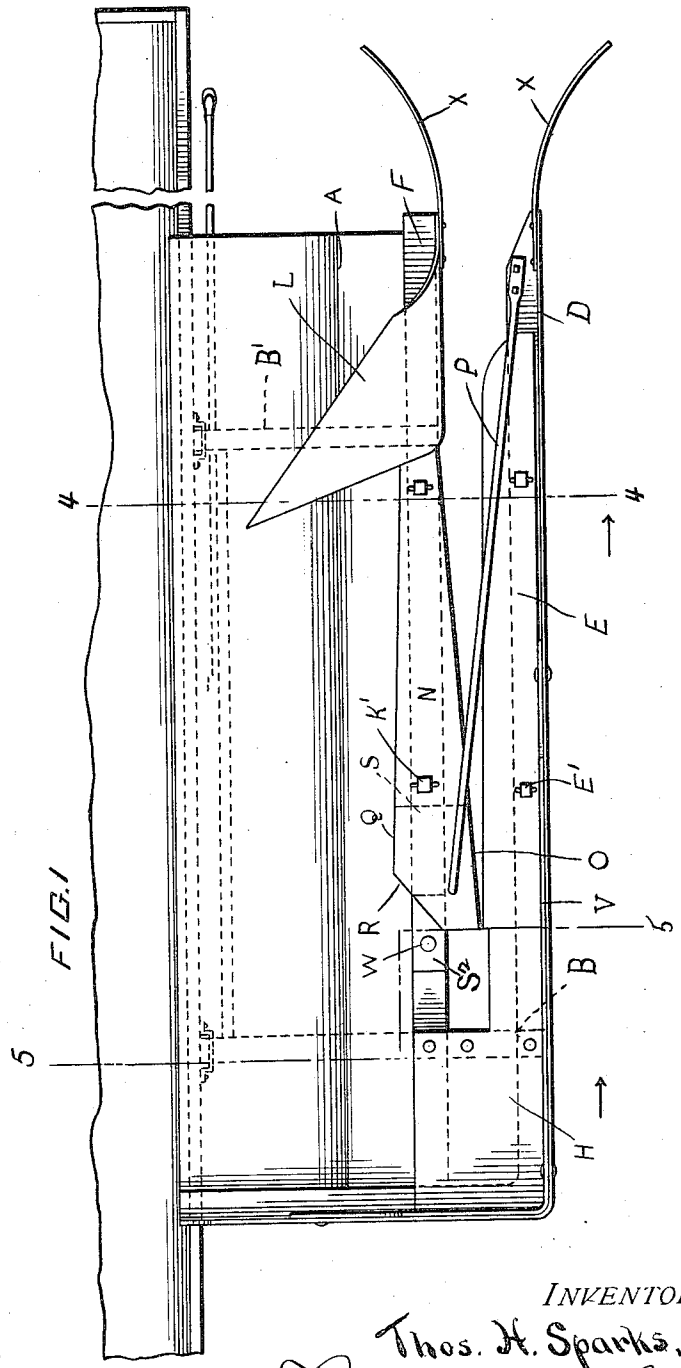


FIG. 1

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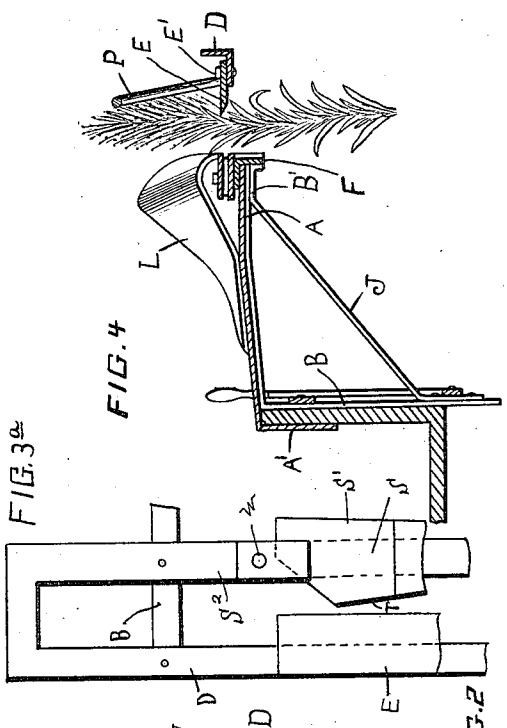


FIG. 4

FIG. 3a

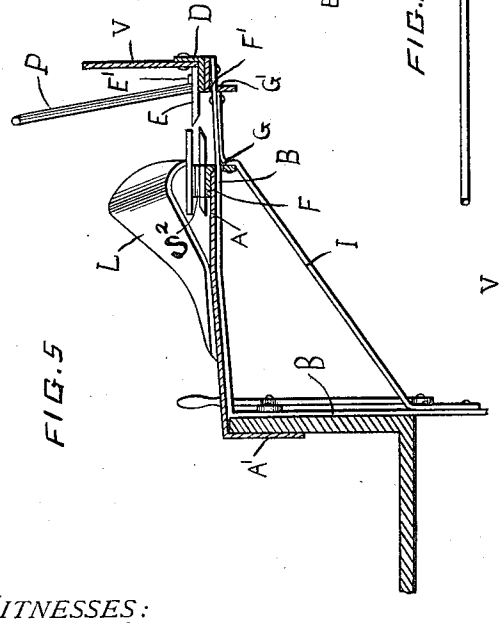


FIG. 5

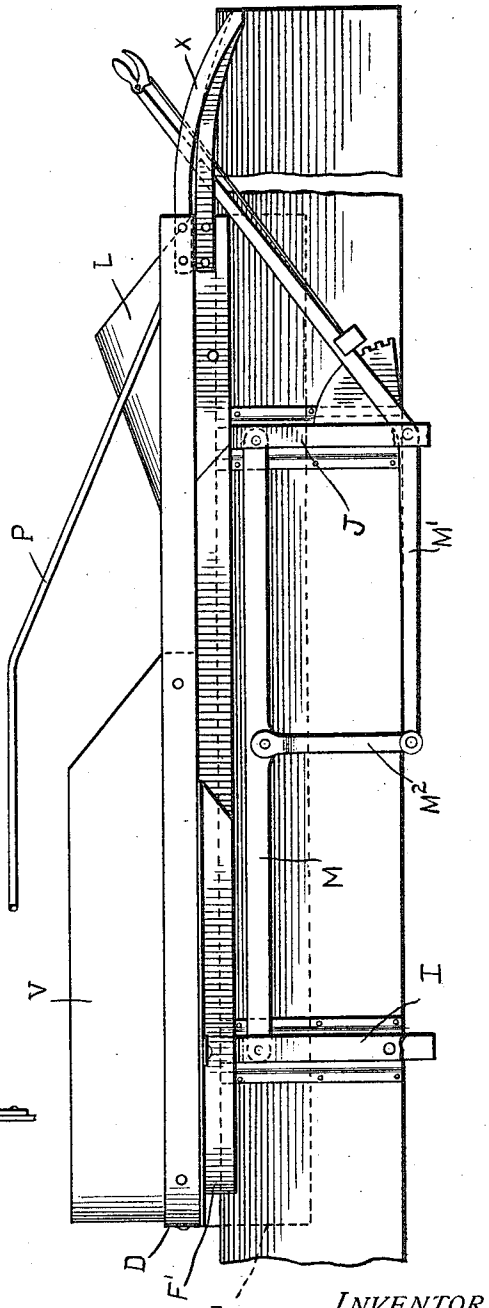


FIG. 2

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APPARATUS FOR HEADING KAFIR CORN, &c.

1,032,088. Specification of Letters Patent. Patented July 9, 1912.

Application filed January 16, 1912. Serial No. 671,425.

To all whom it may concern:

Be it known that I, THOMAS H. SPARKS, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Apparatus for Heading Kafir Corn, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in apparatus for heading Kafir corn and the object in view is to generally improve upon and render more efficient this type of apparatus and to improve upon the construction of apparatus of similar nature which is covered by Letters Patent No. 855,819, granted to me June 4, 1907.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation. Fig. 3 is a detail perspective view of the cutting knives. Fig. 3ª is a detail perspective view showing a cutting blade held in one of its adjusted positions. Fig. 4 is a sectional view on line 4—4 of Fig. 1, and Fig. 5 is a sectional view on line 5—5 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates a table having a vertically disposed wing A′ designed to fit over the edge of a wagon to which the apparatus is to be attached. Said table has upon its under surface braces B and B′, bolted or otherwise secured thereto. Fastened to the marginal edge of said table is an angled bar D, one arm of the bar forming a flange across the rear end and the long arm of the angled bar extending parallel to the edge of the table and spaced apart therefrom and adapted to carry the adjustable cutting knife E which is held upon the horizontally disposed portion of the long arm of the angle bar by means of bolts E′ which pass through registering slots in the knife and said bar. A reinforcing angle bar, designated by letter F, is fastened to the marginal edge of the table parallel to said long arm and said angle bar F is bent to form a short arm F′ which is fastened to the under surface of the long arm of the bar D.

The brace B, above referred to, passes through registering slots G and G′ formed in the arms of the curved angle bar F, and the end of the bar B is held by means of bolts or other suitable fastening means to the under surface of the long arm of the angle bar D. Said brace B is held against the bottom of the plate H, which is fastened to the upper surface of the horizontally disposed portion of the long arm of the bar D, and also to a flange of the bar F, which is secured to the upper surface of the table.

A bracket arm I is fastened to the brace B and passes over the marginal edge of the curved angle bar F to which it is bolted or otherwise fastened and its end is secured to the under surface of the brace B at a location intermediate the two arms of the angle bar F, as shown clearly in the cross sectional view of the drawings. By this means, it will be noted that the parts which carry the knives will be securely braced and held rigidly. A similar bracket arm J is fastened at its lower end to the upright portion of the brace B′ and its other end fastened to the upper end of the brace B′ near the long arm of the curved angle bar F.

Secured to the flange of the long arm of the angle bar F is a plate K and mounted upon the latter is a second plate N which is held in an adjustable position by means of the bolts K′ passing through slots formed transversely in the plate N. One edge of the plate N is angular and the other, which is adjacent to the cutting edge of the knife E, is straight and disposed at an inclination to the cutting edge of said blade or knife E.

Adjustably mounted upon the upper surface of the flange of the long arm of the curved angle bar F is a short cutting blade S, having a cutting edge S′ upon one edge which is longer than a similar cutting edge T upon the opposite edge. The cutting blade S is held in place upon the bar F by means of a clamp S² which is held to the bar by means of a bolt W passing through the bar and, when drawn tight by means of a nut upon the threaded end of the bolt, will serve to hold the clamp frictionally against

the blade, the inner end of which is adapted to contact with the adjacent end of the plate K. It will be noted that the shape of the blade S and the rear end of the plate N correspond to each other, the blade S having an oblique edge S^3 corresponding to the oblique edge R.

It will be noted upon reference to Fig. 3 of the drawings that the cutting edge T is at an angle to the cutting edge S' and when the blade is reversed from the position shown in Fig. 1, the angled edge T will be positioned at an obtuse angle to the cutting edge E and which will allow more space between the cutting edge T and the rear end of the recess intermediate the two angle bars upon which the cutting knives are mounted, this extra space being desirable where the stalks in a row are unusually thick and numerous, it necessarily requiring more room for their reception.

Fastened to the forward end of the long arm of the curved angle bar F is a deflecting shield L which has an upright portion which curves over the table and is downwardly inclined with its free end positioned adjacent to the table.

A guard, designated by letter V, is fastened to the upright flange of the angle bar D about the outer and rear edge thereof and conforms in shape thereto and extends a slight distance over the table. A curved rod P is fastened at one end to the long arm of the angle bar D and extends over the space intervening between the knives and is provided for the purpose of throwing the heads of corn laterally upon the table after having been cut by the knives. The curve of the rod is such as to cause the head, after being severed, to be thrown laterally on the table.

Fastened to the two braces is a member M which is pivotally connected to the angle lever M' through the medium of the link M^2, said lever serving as means for holding the table at different elevations, as may be desired. Fastened to the inner marginal edge of the long arm of the angle bar D and to the corresponding end of the long arm of the angle bar F are the outwardly curved rods X which serve to cause the stalks of corn to be deflected toward each other and into the space intermediate the knives as the machine moves over a field.

The operation of my invention is as follows:—The apparatus is adapted to be fastened in any suitable manner to a wagon box and the table and cutting knives adjusted at proper elevation with the space between the cutting knives so positioned as to receive a row of stalks, the tops of which are to be cut by the apparatus. As the knives draw against the stalks adjacent to the tops thereof, they will be severed and caused to be thrown over upon the table by the curved arm which is fastened to the angle bar D and rolling down the inclined table will be caught in the box of the wagon to which the apparatus is fastened.

What I claim to be new is:—

1. An apparatus for heading Kafir corn comprising a table, two apertured angle bars fastened thereto and spaced apart, angled bracket members fastened to the table and adapted for vertical adjustment, one of which passes through registering apertures in the angle bars, braces fastened to said angled bracket members, one of which braces is secured to one of the angle bars and has its upper end secured to the under face of one of said bracket members, and blades mounted upon the angle bars, as set forth.

2. An apparatus for heading Kafir corn comprising a table, two apertured angle bars fastened thereto and spaced apart, angled bracket members fastened to the table and adapted for vertical adjustment, one of which passes through registering apertures in the angle bars, braces fastened to said angled bracket members, one of which braces is secured to one of the angle bars and has its upper end secured to the under face of one of said bracket members, and adjustable blades fastened one to each of said angle bars, as set forth.

3. An apparatus for heading Kafir corn comprising a table, an inner and an outer angle bar fastened thereto and spaced apart, angled bracket members fastened to the table and adapted for vertical adjustment, one of which passes through registering apertures in the angle bars, braces fastened to said angled bracket members, one of which braces is secured to one of the angle bars and has its upper end secured to the under face of one of said bracket members, a cutting blade adjustably mounted upon the outer of said angle bars, plates adjustably fastened to the inner of said angle bars and of different lengths and spaced apart, a double-edged cutting knife with cutting edges at angles to each other, and means for clamping the same intermediate one of said plates and said inner angle bar, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

THOMAS H. SPARKS.

Witnesses:
A. L. HOUGH,
A. R. FOWLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."