H. CAMP.

Straw Cutter.

No. 7,592. Patented Aug. 27, 1850.

Fig. 1

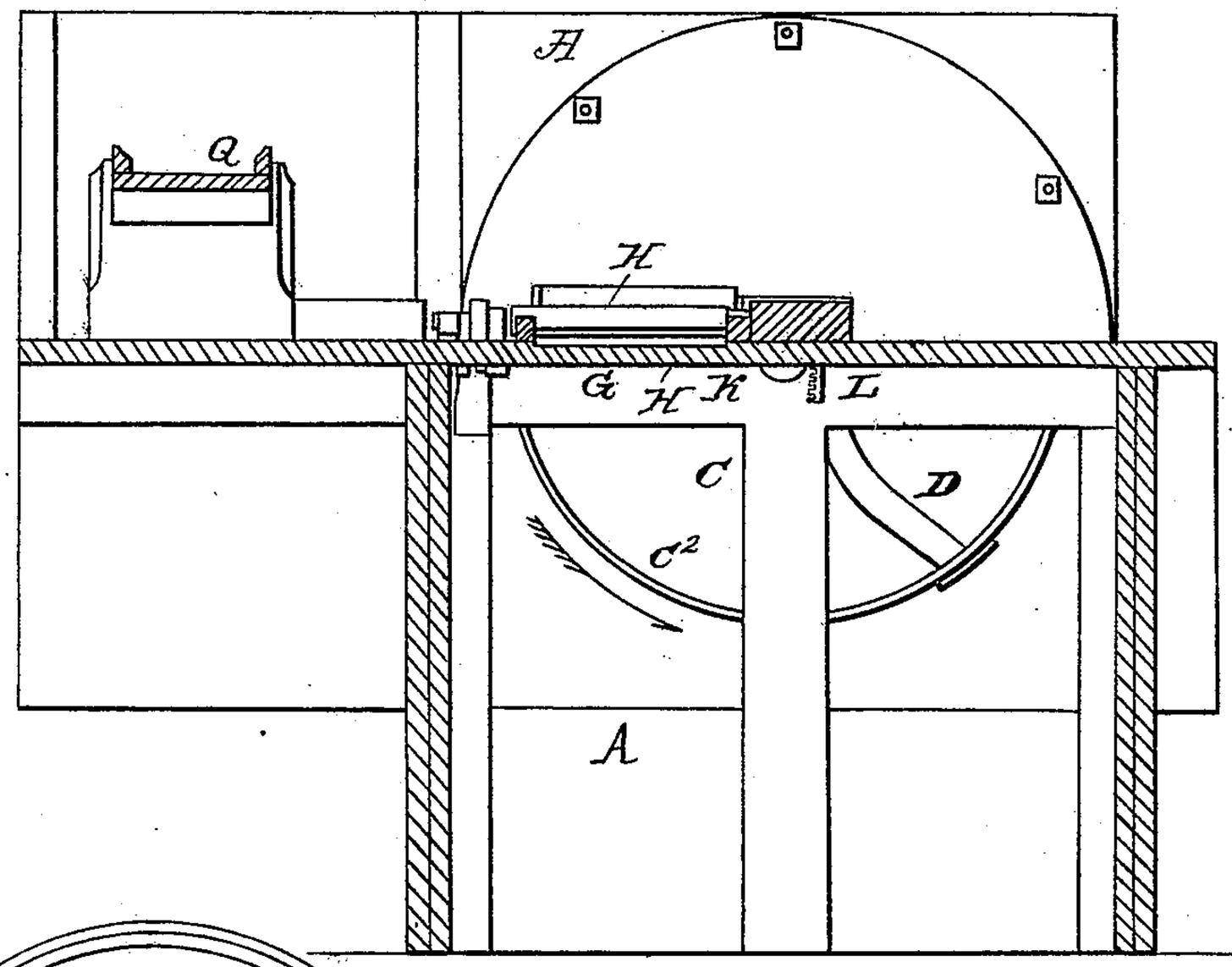
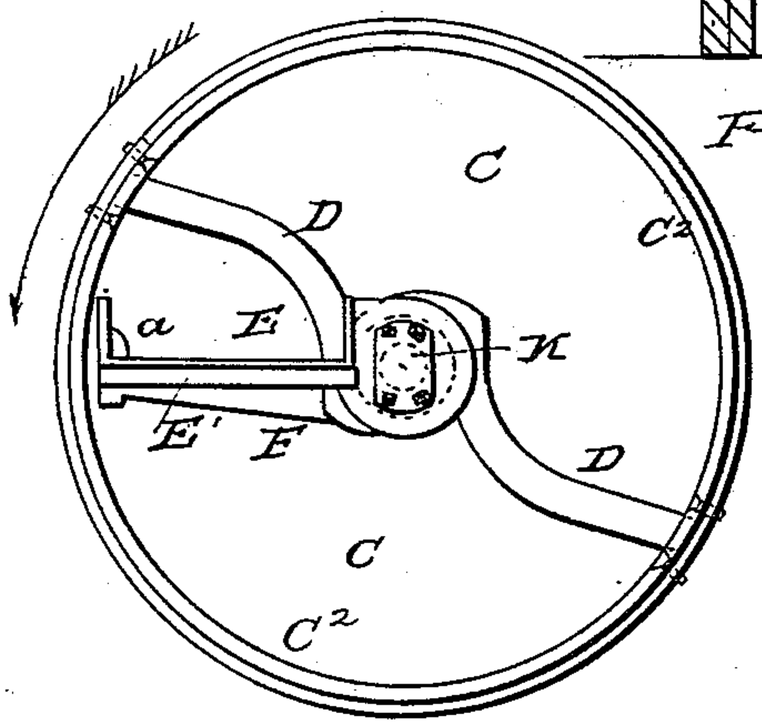


Fig. 2



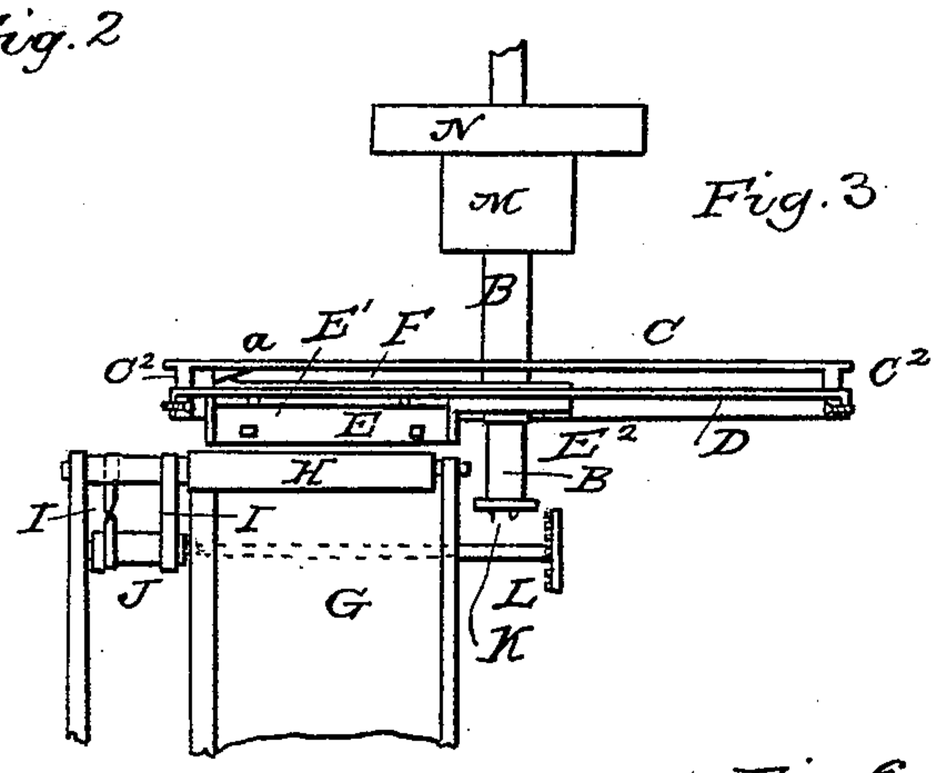


Fig. 3

Fig. 4.

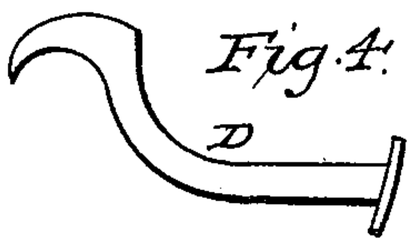


Fig. 5

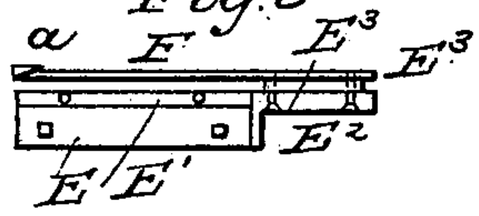
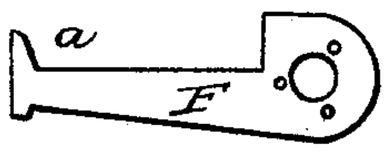


Fig. 6



UNITED STATES PATENT OFFICE.

HARRY CAMP, OF NEWTON, GEORGIA.

MACHINE FOR CUTTING STRAW.

Specification of Letters Patent No. 7,592, dated August 27, 1850.

To all whom it may concern:

Be it known that I, HARRY CAMP, of Newton, in the county of Newton and State of Georgia, have invented a new and useful Improvement in Machines for Cutting Straw, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a front elevation of the machine. Fig. 2, is a front elevation of the circular plate, cutters, mouth piece, clearer, and part of the feed gear. Fig. 3, is a top view of the feed rollers, hopper, feed gear, cutters or knives, mouth piece, clearer, pulleys and a segment of the wheel. Fig. 4, is a plan of one of the knives, detached from the wheel. Fig. 5, is a top view of the mouth piece and clearer. Fig. 6, is a plan of the clearer detached.

Similar letters in the several figures refer to the same parts.

A, is the frame.

B, is the shaft of the circular plate to which plate the cutters are affixed for cutting the straw, having its bearings or boxes in the frame.

C, is the circular plate, having the straw cutters on one side and corn shellers on the opposite, and a rim C^2 near its periphery to which the cutters are affixed, and which serves to impart to the plate the effect of a fly wheel and in which rim are made oblong openings through which are passed the knives previously to their being bolted to the said rim. This rim and plate are cast in one piece.

D are the cutters for cutting the straw or other substance. These are made of cast steel in the form represented in Fig. 4, each turned nearly at right angles at its outer or widest end forming a flange by which it is bolted or secured to the rim of the wheel as shown in Figs. 1, 2, and 3, the curved or inner end being made of a bill hook shape, and passing over a circular collar of the mouth piece in the manner shown in Fig. 2, by dotted lines, without touching, except when there is an undue pressure upon its cutting edge. This part of the knife curves in a contrary direction to the cutting part as shown in Fig. 4. The back of the knife is of a uniform thickness from one end to the other.

E, is the cast iron mouth piece fastened to the mouth of the cutting box, cast in a single piece, and faced with a steel lip E′ against which the straw is severed, as the plate revolves, let into a rebate or groove cast in the mouth piece. On the end of the mouth piece next the center, is cast a segmental projection E^2 through which the shaft B passes, but without touching it; and on this projection is cast a circular collar E^3 to the face of which is screwed the clearer F, hereafter described. This collar performs a twofold office, namely, to form a circular bearing for the back of the knife to rest against when the cutting edge meets with that degree of resistance as to spring the knife back; and as a bearing or support for the clearer F, and to sustain it at the required distance from the steel lip of the mouth of the cutting box, so as to leave sufficient space for the knives or cutters to pass through as the wheel is revolved without touching the lip or the clearer.

F, is the clearer for clearing the cut straw from the space between the knife and plate C; said clearer also serving as a rest for the straw whilst the knives are passing through. This clearer is made of cast steel in the form represented in Figs. 5 and 6, and is bolted by its inner end to the collar or projection E^3 on the projecting end of the cast iron mouth piece of the feed trough, whilst its outer end is detached having a triangular head (*a*) for guiding the knife as it enters the space between it and the mouth piece.

G, is the feed box or apron over which is passed the substance to be cut.

H, H, are the two feed rollers, between which the substance to be cut is drawn.

I, I, are the bands and pulley J, for causing the feed rollers to move simultaneously.

K, L, are gears for turning the feed rollers—one of which K, being on the end of the main shaft B, the other L, being on the axle of the roller J, so arranged as to move the feed rollers and then pause whilst the cutters are passing through the straw.

M, is a pulley on the main axle to receive the band from the propelling power.

N, is a pulley for another band to operate a cleaner and thresher.

Q, is the hopper of the thresher, or feed box.

The bundles of grain having been subjected to the operation of the cleaner, the straw is collected and spread out upon the apron G, and conveyed thence by the feed

rollers to the revolving knives when it is cut up into small particles, which are thrown down by the action of the machine upon the floor, or into a proper receiver. The curved flange of the clearer which projects beyond the periphery of the collar prevents the loose ends of the cutters from springing from the mouth of the hopper while cutting the straw.

Having thus described the nature of my invention and improvement, what I claim, and desire to secure by Letters Patent is,

1. The manner of hanging the knives to the wheel as described.

2. Forming the knives with a hook shaped end in the manner and for the purpose set forth.

3. The collar on the projecting end of the mouth piece forming a support for the detached end of the knife to rest against as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

HARRY CAMP.

Witnesses:
LUND WASHINGTON,
WM. P. ELLIOT.