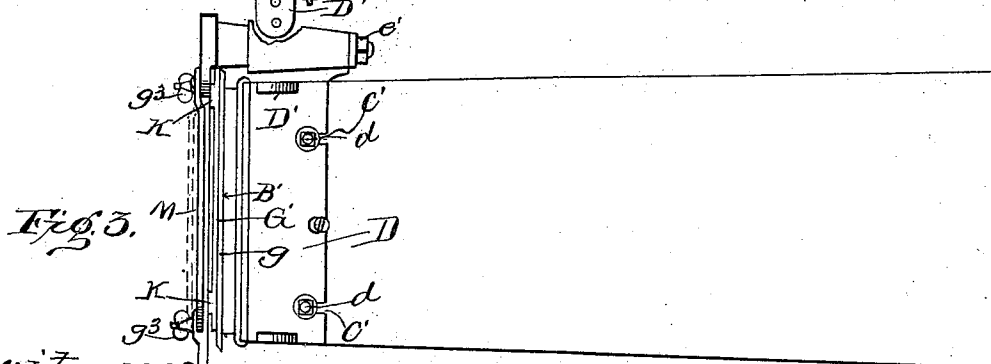
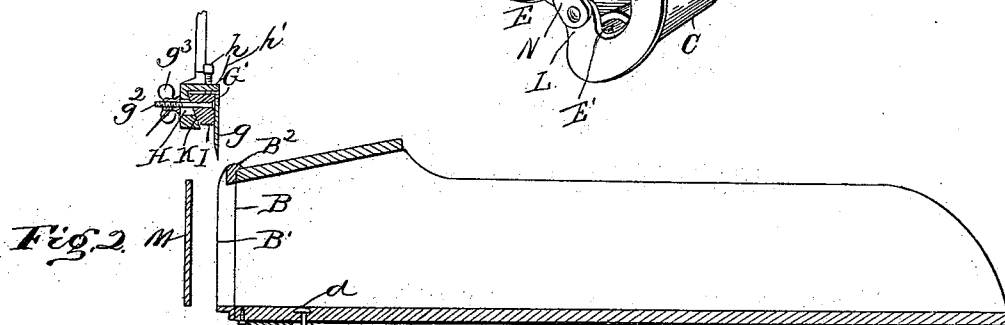
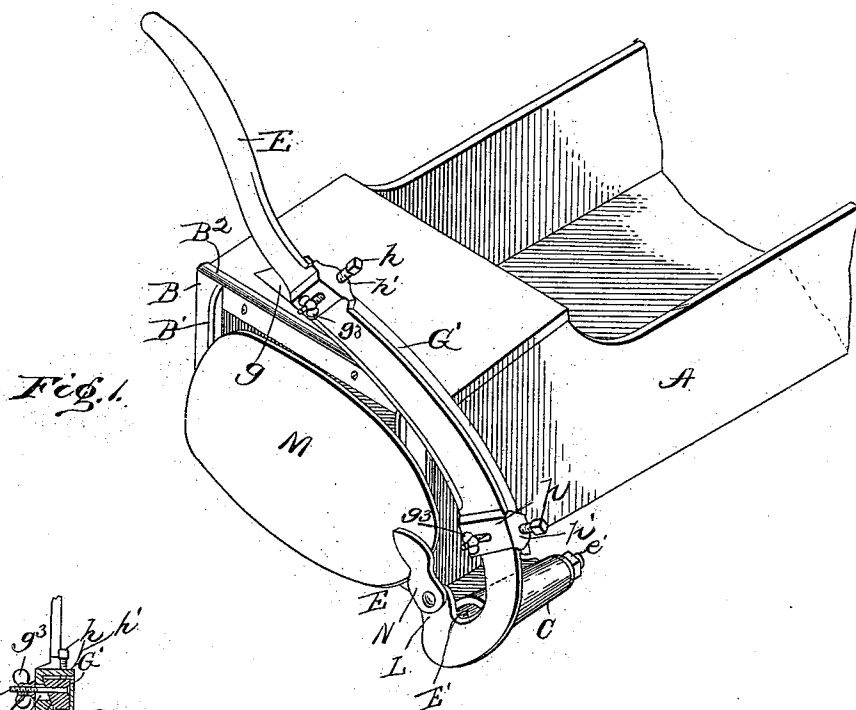


(No Model.)

E. LITTLE.
FEED CUTTER.

No. 553,925.

Patented Feb. 4, 1896.



witnesses
J. M. Fowler
Alfred Stewart

Inventor:
Edwin Little,
by *Charles H. Smith*
His Attorneys.

UNITED STATES PATENT OFFICE.

EDWIN LITTLE, OF HAMPTON, VIRGINIA, ASSIGNOR OF ONE-HALF TO
S. H. SAYRE, OF SAME PLACE.

FEED-CUTTER.

SPECIFICATION forming part of Letters Patent No. 553,925, dated February 4, 1896.

Application filed June 4, 1895. Serial No. 551,639. (No model.)

To all whom it may concern:

Be it known that I, EDWIN LITTLE, of Hampton, in the county of Elizabeth City and State of Virginia, have invented certain new and useful Improvements in Feed-Cutters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in feed-cutters of the reciprocatory-knife variety, and has for its object to provide a cheap, strong, durable structure, in which the length of the feed cut may be readily varied and the knife adjusted to take up wear or to secure a cleaner cut.

The invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described and pointed out particularly in the appended claim.

Referring to the accompanying drawings, Figure 1 is a perspective view of a feed-cutter constructed in accordance with my invention without the legs. Fig. 2 is a vertical section taken longitudinally of the box. Fig. 3 is a bottom plan view with the parts of the knife-frame separated from the box and the adjustment of the gage-plate shown in dotted lines.

Like letters of reference in the several figures denote the same parts.

The box A for the long feed is of the usual or any preferred construction adapted to be supported at a convenient height on legs, as will be presently explained, or in any suitable manner, and it in turn supports the cutting mechanism at the front end. About the opening of the box I locate a metal frame B, which frame, in addition to the usual flange B' with which the knife co-operates in making the cut, has an inclosing flange B², within which the walls of the box are confined and whereby the strain on the fastening-screws is relieved. This confining-frame is preferably independent of the other metallic parts of the cutting mechanism, and the knife-bearing C is carried by or formed integral with a bottom plate D, extending across and adapted to be secured flat against the bottom of the box by

bolts or screws *d*, passing through slots *c'* to allow for the adjustment of the knife independently of the frame on the box. Plate D may, and preferably does, carry brackets D' for the attachment of the front legs, although, as before intimated, this is not at all essential.

The bearing C is preferably conical and extends toward the rear from the front end of the box. Thus there are no projections toward the front save the knife and gage frame E, which is provided with a journal E', fitting in the bearing, and a handle E², by means of which the frame and attached parts are reciprocated. It is preferred to secure the frame to the bearing by means of a nut *e'* on the end of the journal.

The knife proper (lettered *g*) is in the form of a flat blade, preferably having a curved cutting-edge, and is mounted on a strengthening piece or back G' in any suitable manner, the back G' being in turn provided with screw-bolts *g*² passing through slots H in the knife-frame, with thumb-nuts *g*³ thereon, thereby permitting of a vertical adjustment of the knife on its frame. The accuracy of such adjustment is secured by set-screws *h* passing vertically through lugs *h'* on the top of the knife-frame, and in order to secure a more accurate adjustment of the knife toward and from the mouth of the box I interpose between the knife and knife-frame inclines or inclined surfaces, which as the knife is forced down will move it toward the mouth of the box without destroying its parallelism therewith.

In the preferred construction I cast the inclines directly on the knife back and frame—that is to say, I form the projecting inclines I on the knife-back, with the bolts *g*² projecting through them and corresponding recesses K in the knife-frame. With this construction the knife may be quickly and accurately set to take up any looseness which may exist between it and the mouth of the box, or it may be removed for sharpening and replaced with the greatest facility.

For the purpose of regulating the length of the cut feed I form a lug L on the knife-frame near the journal projecting in a plane parallel with the knife-frame, and to this lug I at-

tach, by means of a bolt, a gage-plate M, adapted to stand in front of the mouth of the box when the knife is raised, and to form a stop for arresting the advance of the feed.
5 The adjustment to cut feed different lengths is secured by forming the attaching-lug N on the plate M in a plane to one side of the plane of the body of the plate and making provision to reverse the plate or attach it to either
10 side of the lug L, as shown clearly by the dotted lines, Fig. 3.

Provision may be made for cutting any desired four lengths of feed by varying the extent of the offset of the gage-plate and its lug
15 N and by varying the thickness of the lug L. Experience shows that four variations are all that are desirable in the practical use of the machines.

Having thus described my invention, what I claim as new is—

20 In a feed-cutter the combination with the box and knife-frame journaled thereon, the incline recesses therein, the knife, the knife-back carrying the knife and having the incline projection co-operating with the incline
25 recesses in the knife-frame, bolts passing through slots in the knife-frame for uniting the two and vertically-arranged set-screws passing through the top of the knife-frame
30 for holding the parts in adjusted position; substantially as described.

EDWIN LITTLE.

Witnesses:

JOHN J. SAYRE,
S. H. SAYRE.