

(No Model.)

G. W. PACKER.
FEED SHREDDER AND CHOPPER.

No. 553,314.

Patented Jan. 21, 1896.

Fig. 1.

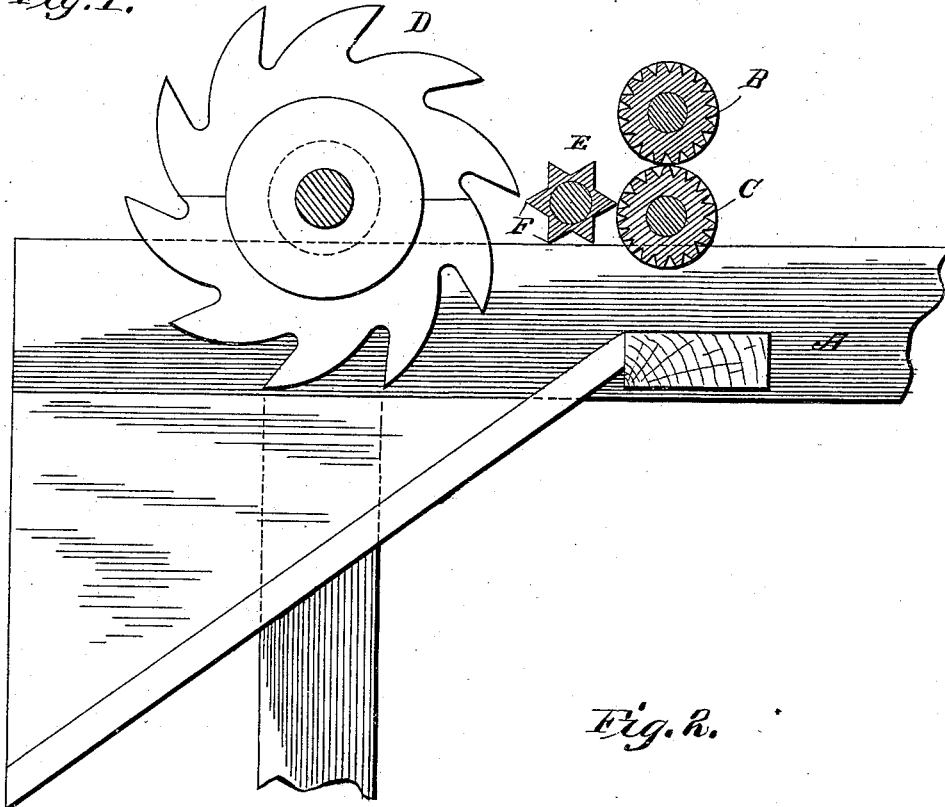
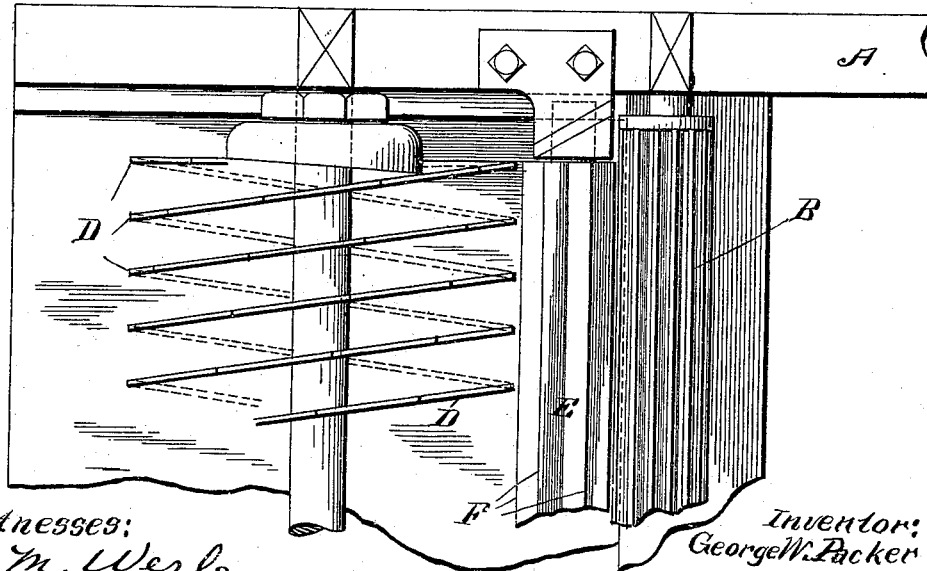


Fig. 2.



Witnesses:
C. M. Werle.
Hubert D. Beck.

Inventor:
George W. Packer
By John G. Manahan.
Atty.

UNITED STATES PATENT OFFICE.

GEORGE W. PACKER, OF ROCK FALLS, ASSIGNOR TO THE KEYSTONE
MANUFACTURING COMPANY, OF STERLING, ILLINOIS.

FEED SHREDDER AND CHOPPER.

SPECIFICATION forming part of Letters Patent No. 553,314, dated January 21, 1896.

Application filed September 26, 1895. Serial No. 563,719. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PACKER, a citizen of the United States, residing at Rock Falls, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Feed Shredders and Choppers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to

10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 My invention has reference to improvements in feed shredders and choppers; and it consists essentially of a movable cutter-bar seated between the feed-rolls and reducing mechanism.

20 Objections and difficulty are experienced under some conditions in the use of the present stalk choppers and shredders from the tendency of the blades and husks, when green or damp, to wedge down between the lower
25 feed-roll and the usual stationary cutter-bar adjacent thereto. The side of the lower feed-roll next said bar moves downwardly and the adhesive quality of the corn-blades and small inner husks, when in a green or damp condition, causes them to adhere to the periphery
30 of such roll, resulting in gradually wedging an accumulation of husks and blades between said roll and cutter-bar to such an extent as to greatly impede the machine and increase the
35 friction of the parts, necessitating more power to drive the same, until such accumulation reaches a choke, when it becomes impossible to satisfactorily operate the machine without first stopping and taking out such wound or
40 wedged mass.

In my invention, by the interposition of a movable cutter-bar between the feed-rolls and reducing mechanism, I prevent such accumulation by precluding its inception. Both walls
45 of the interval between the cutter-bar and the feed-roll being movable it is simply impossible for an accumulation to occur therein.

I attain the above purpose by the mechanism illustrated in the accompanying drawings, in which—

50 Figure 1 is a vertical longitudinal section

of a portion of a stalk-shredder embodying my invention. Fig. 2 is a partial plan view of the same.

Similar letters refer to similar parts in both views.

In this application my invention is shown as embodied and employed in a cornstalk-shredder, but it is obvious that with easily adopted and unimportant changes my invention can be equally as well utilized in a stalk or straw, hay, or other chopping machine.

As my invention is adapted for use in any of the many types of feed-choppers which employ feed-rolls in front of reducing mechanism, and the general construction of such machines is well known, I do not deem it necessary to show or describe an entire machine nor more thereof than will suffice to render intelligible my description of the construction, location, relation, and operation of my invention.

A is the frame of the machine supported on suitable standards or legs and provided with the transverse coacting feed-rolls B and C journaled thereon and rotated in any suitable manner.

D is a shredder head or cylinder journaled on the frame A a suitable distance behind the feed-rolls B and C in position to engage and reduce the cornstalks as they are projected or fed to it through between said feed-rolls. In the interval between the said feed-rolls and the shredder-head there is suitably journaled transversely in the frame A the cutter-bar E, preferably provided longitudinally with ridges F on its perimeter. The cutter-bar E may be separately journaled in the frame A without any connection to any part of the positively-acting machinery, and be therefore moved entirely by the contact of the moving material with its points F, or, if preferred, said bar E may be positively and uniformly rotated or oscillated by a belt or gear connection with some other suitable part of the machine.

The operation of my invention is as follows: The cornstalks fed in the usual way between the rolls B and C pass over the upper surface of the bar E and being pushed by their engagement between said feed-rolls impart a slow rotary movement to the bar E suffi-

cient to lift and carry over toward the shredder D any loose husks or blades which otherwise dropping down between the lower feed-roll C and said bar, if the latter was stationary, would eventually cause a choke as aforesaid. If any considerable amount of such obstructing material should at one time be carried down by the rear of the roller C with sufficient force to overcome the friction of the cornstalk on the upper surface of said cutter-bar, the latter will rotate axially reversely and thereby prevent such choking, such material being in such instance carried either upward or downward, as the degree of its pressure may compare with that of the moving cornstalk on the top of said cutter-bar. Said cutter-bar is seated sufficiently near the rear side of the lower feed-roller, C, that the apex of the ridges F on said bar will engage any loose material tending to pass downward on the rear side of said feed-roller.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. In combination with the feed-rolls B and C, and the shredder head D, the movable cut-

ter bar E, loosely journaled in the frame of the machine in the interval between said shredder head and rolls and sufficiently near the latter to intercept and remove any incipient accumulations thereon, substantially as shown and for the purpose described. 30

2. In a feed shredding or chopping machine, the combination with the feeding and reducing mechanism of a movable cutter bar seated loosely between the feeding and reducing mechanism thereof, substantially as shown and for the purpose specified. 35

3. In a feed shredding or chopping machine, provided with positively driven feeding and reducing mechanism an angular sided cutter bar seated loosely on the frame of the machine between such feeding and reducing mechanism, substantially as shown and for the purpose described. 40 45

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

GEORGE W. PACKER.

Witnesses:

JOHN G. MANAHAN,
CHATTIE L. MANAHAN.