

No. 672,501.

Patented Apr. 23, 1901.

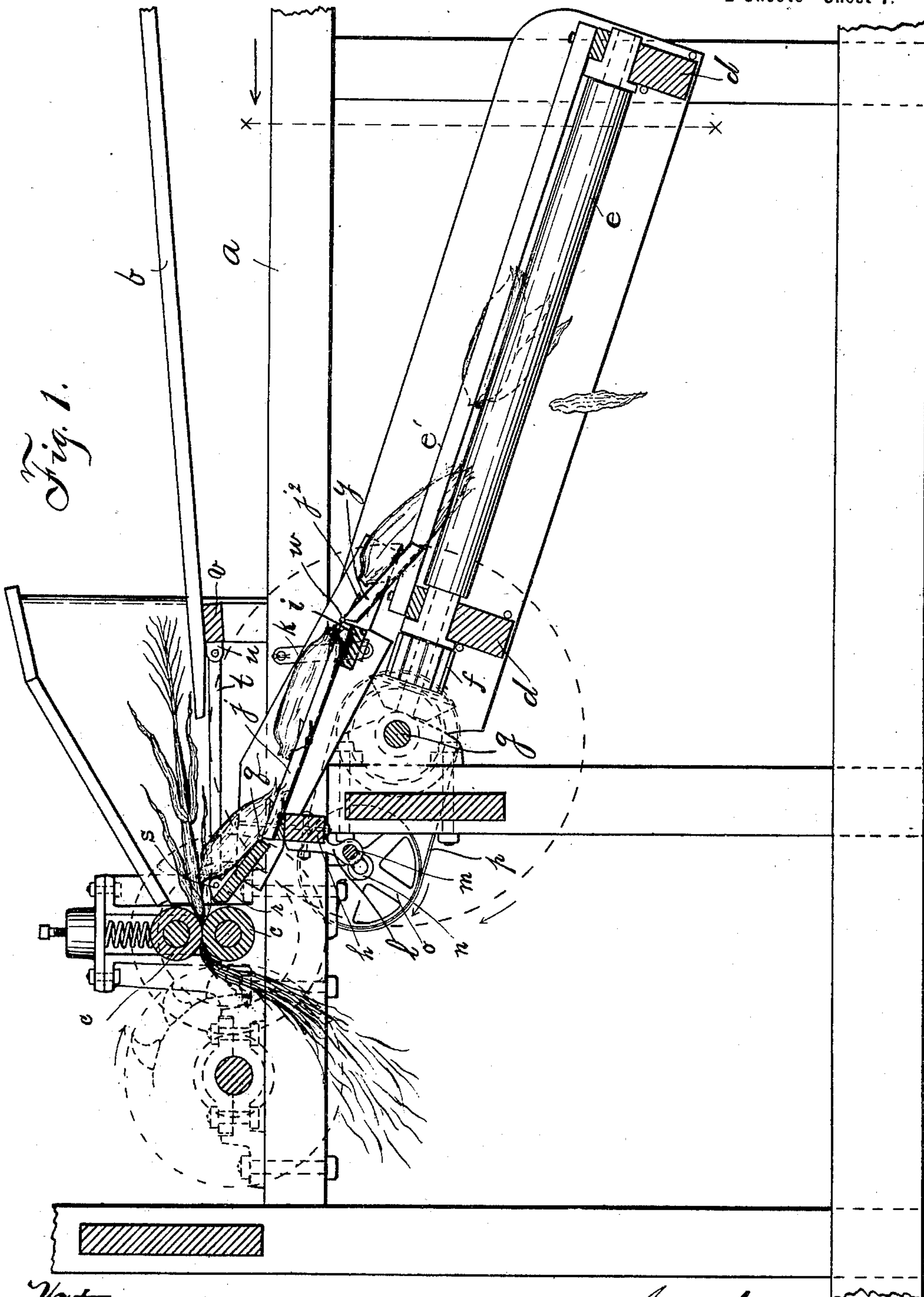
A. VAN NESS.

CORN HUSKING AND SHREDDING MACHINE.

(Application filed Mar. 5, 1900. Renewed Dec. 24, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
O. P. Nelson.  
A. V. Clark.

Inventor  
Albert Van Ness.  
By David H. Fletcher  
his Atty.

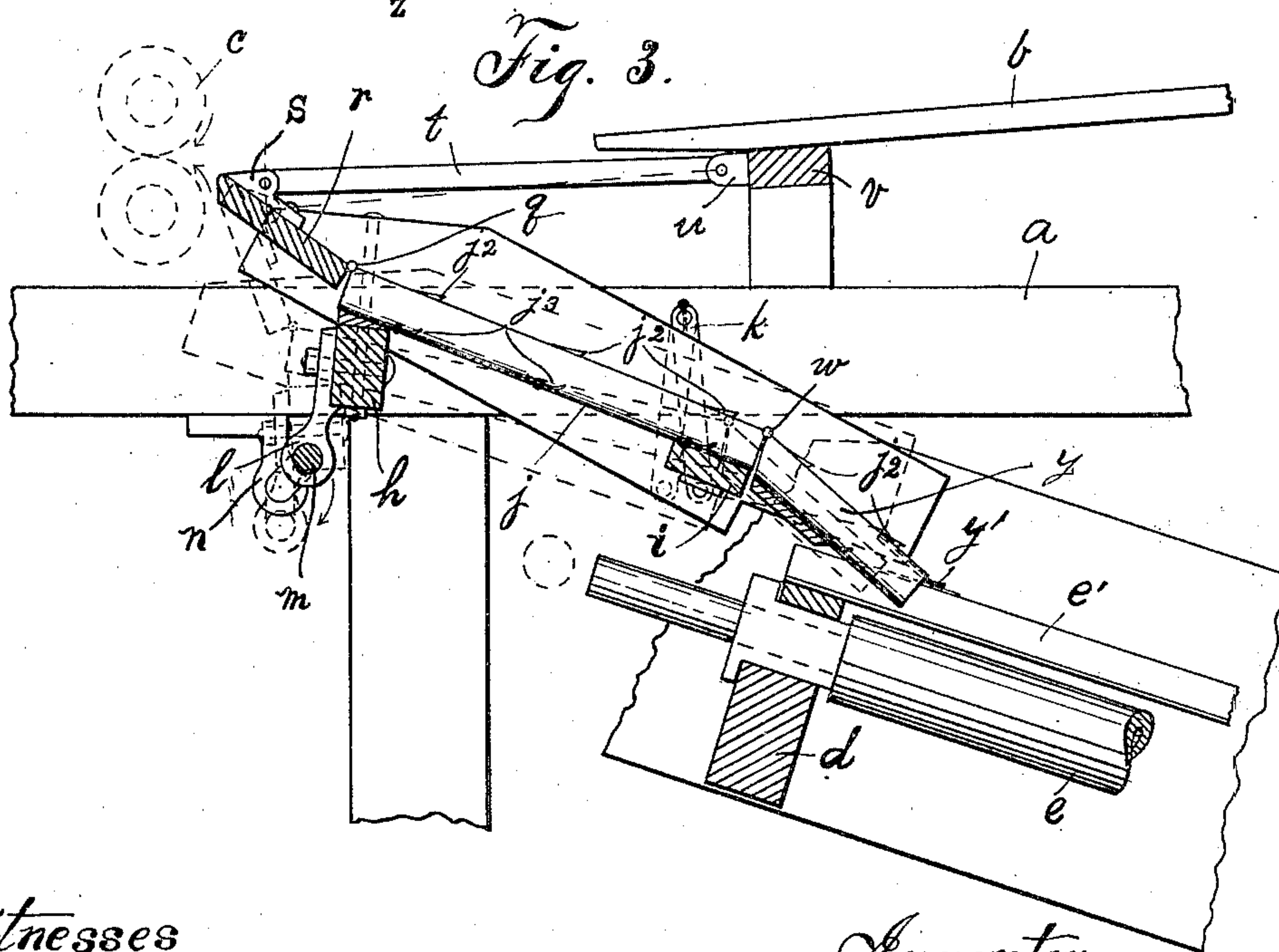
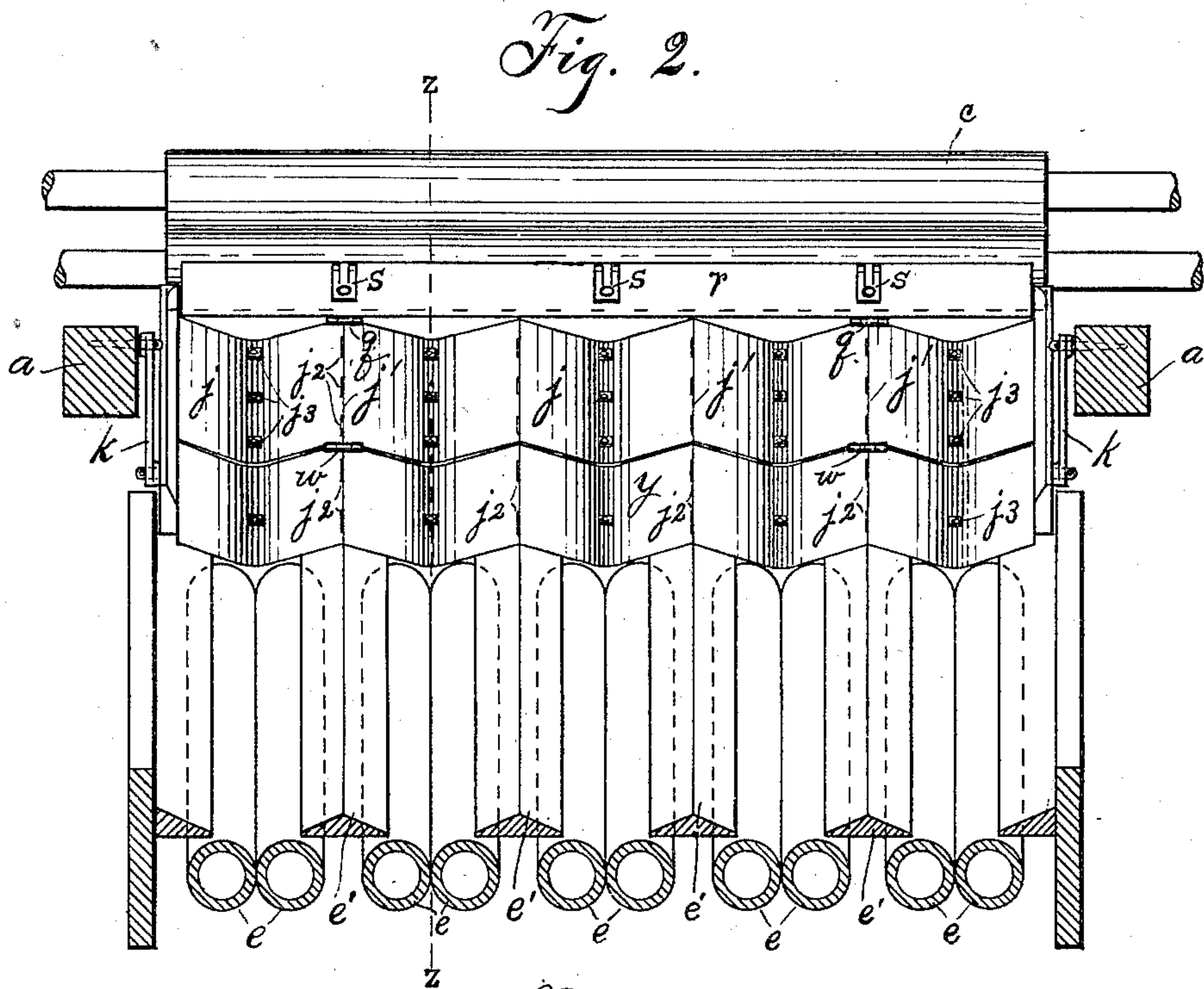
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2 Sheets—Sheet 2.



Witnesses  
O. P. Nelson.  
A. V. Clark.

Inventor  
Albert Van Ness  
By David H. Fletcher  
his Atty.



# UNITED STATES PATENT OFFICE.

ALBERT VAN NESS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ADVANCE  
THRESHER COMPANY, OF BATTLECREEK, MICHIGAN.

## CORN HUSKING AND SHREDDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 672,501, dated April 23, 1901.

Application filed March 5, 1900. Renewed December 24, 1900. Serial No. 40,971. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT VAN NESS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful  
5 Improvements in Corn Husking and Shredding Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

10 Figure 1 is a longitudinal vertical sectional view of a portion of a corn husking and shredding machine embodying the features of my invention, taken upon the line *z z*, Fig. 2. Fig. 2 is a transverse vertical sectional view taken  
15 upon the line *x x*, Fig. 1, viewed in the direction of the arrow there shown; and Fig. 3 is a similar view to that shown in Fig. 1, but indicating the different relative positions of the parts.

20 Corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a mechanism for use in corn husking and shredding machines which will not only aid in  
25 feeding the cornstalks to the snapping-rolls, but will also serve to properly adjust and present the ears of corn to the husking-rolls, so as to insure uniformity of action and prevent any ears from passing through the machine without being husked.

To these ends my invention consists in providing a peculiar shaking mechanism which will not only act upon the stalks in feeding them to the machine, but will also serve to  
35 adjust the ears and control the movement thereof for the purpose stated, all of which is hereinafter more particularly described, and definitely pointed out in the claims.

Referring to the drawings, *a* represents that  
40 portion of the frame of the machine which is intended to support the usual snapping and feeding rolls, while *b* indicates the table upon which the cornstalks are placed for the purpose of feeding them to the machine.

45 Mounted in suitable bearings in the frame are the usual snapping-rolls *c c*, which may be constructed in any well-known manner, said rolls being arranged in the usual way transversely of the machine. In front of the  
50 snapping-rolls and journaled in suitable bearings supported by cross-bars *d d*, Figs. 1 and

3, are the husking-rolls *e*, which are arranged in pairs, according to a well-known construction, each pair of rolls throughout the series being connected by means of gears *f*, Fig. 1, 55 the shaft of one of said rolls being connected by means of a beveled gear (indicated in dotted lines in said figure) with a similar beveled gear mounted upon the shaft *g*, which is in turn connected with a source of power 60 by means of suitable gears, as indicated in dotted lines in Fig. 1. The husking-rolls *e* are indicated in the usual way. Between the snapping-rolls *c* and the upper ends of the husking-rolls is located my improved com- 65 pound shaking mechanism, which is constructed and arranged as follows:

Mounted upon and supported by cross-bars *h i* at the respective ends is an inclined apron *j*, which is preferably made from sheet metal 70 and arranged to extend entirely across the machine, as shown in Fig. 2. The bar *i* is suspended at its respective ends by means of links *k*, the upper ends of which are loosely attached to the frame *a*. The cross-bar *h* is 75 supported at its respective ends by means of arms *l*, which are rigidly bolted, as shown, to said cross-bars, while the lower ends are in operative connection with and supported upon crank-arms *m*, formed upon a shaft *n*, upon 80 which is mounted a pulley *o*, Fig. 1, driven by means of a belt *p*, which is trained over a corresponding pulley upon the shaft *g*, as indicated in dotted lines in said figure. Hinged at *q* to the main apron *j* is a headboard *r*, to 85 the upper edge of which I have bolted lugs *s*, which are loosely connected by means of horizontal links *t* to lugs *u*, rigidly bolted to a cross-bar *v*, forming a part of the frame and serving as a support for the feeding-table *b*. 90 It will thus be seen that as the crank-shaft *n* is rotated a peculiar shaking motion is imparted to the apron *j*, the upper end of which nearly describes a circle, while the lower end vibrates back and forth, supported by the 95 links *k*. A still different movement is imparted to the headboard *r*, the lower edge of which conforms to the movement of the upper end of the apron *j*, while the movement of the upper edge of the headboard is limited by that of the links *t*. The peculiar vi- 100 bratory movements of the two parts are indi-



cated by the full and dotted lines in Fig. 3. Hinged at *w* to the lower end of the apron *j* is a supplemental or extension apron *y*, also made from sheet metal, the lower edge of which is provided with shoes *y'*, Fig. 3, adapted to slide upon the upper surface of bars *e'*, which are arranged above and in vertical planes between the respective pairs of rollers *e*, as clearly shown in Fig. 2. The apron *j* and the supplemental apron *y* are corrugated, so as to form a series of depressions or troughs, the lowest lines of depression of which are in planes lying between the meeting faces of the rolls *e*, respectively, while the highest portions between the troughs are shown at *j'*, Fig. 2, which are in alinement, respectively, with the dividing-bars *e'*. The bars *e'* are beveled laterally, as shown in said last-named figure, preferably to conform to the pitch of the troughs in the aprons *j y*. This construction of the troughed aprons and the beveled bars *e*, arranged as shown, causes the ears of corn when separated from the stalks to assume positions parallel to the husking-rolls, so that the husks may be readily grasped thereby. The vibratory movement of the aprons helps to insure this result, and in order that said movement may prove more effectual, so as to prevent any tendency of the ears to clog, I provide teeth *j<sup>2</sup> j<sup>3</sup>* in the bottoms and upon the ridges between, which tend to force the ears along with each downward movement of the aprons.

The result of the improved construction and operation of my machine is that all clogging both of the ears and stalks is prevented and a regular uniform movement of the ears is insured, the axes of the ears being parallel with that of the rolls, so that no ears are permitted to slide past the rolls unhusked.

Aside from the advantages stated the vibratory or four-motion movement of the apron serves to prevent the clogging of the stalks as they are fed to the snapping-rolls and insures a regular and uniform feed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the feed and husking rolls respectively of a corn shredding and husking machine, of an inclined headboard arranged parallel to and immediately in front of the feed-rolls, the upper edge of said headboard being connected by means of substantially horizontal links *t* to a stationary frame, and means for imparting a rotary movement to the lower edge thereof, whereby a continuous vibratory up-and-down movement may be imparted to the upper and a rotary movement to the lower edge of said board thus serving to prevent the stalks from becoming clogged as they are fed to the machine, substantially as described.

2. The combination in a machine of the class described, of feed and husking rolls respectively, an inclined headboard arranged parallel to and immediately in front of the feed-rolls, horizontal links *t* for pivotally connecting the upper edge of said headboard to a stationary frame, a movable inclined apron hinged to the lower edge of said headboard, and means for imparting a rotary movement to said apron at its upper edge, substantially as described.

3. The combination in a machine of the class described, of feed and husking rolls respectively, an inclined headboard arranged parallel to and immediately in front of the feed-rolls, horizontal links *t* for pivotally connecting the upper edge of said headboard to a stationary frame, a movable inclined apron hinged to the lower edge of said headboard, means for imparting a rotary movement to said apron at its upper edge, links for supporting said apron at its lower edge and a supplemental apron *y* hinged to the lower edge of said first-named apron, substantially as described.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 1st day of March, 1900.

ALBERT VAN NESS.

Witnesses:

D. H. FLETCHER,

ROBERT K. S. CATHERWOOD.