J. M. WHITCOMB.

BAND KNIFE.

APPLICATION FILED JAN. 8, 1914.

1,107,004.

Patented Aug. 11, 1914.

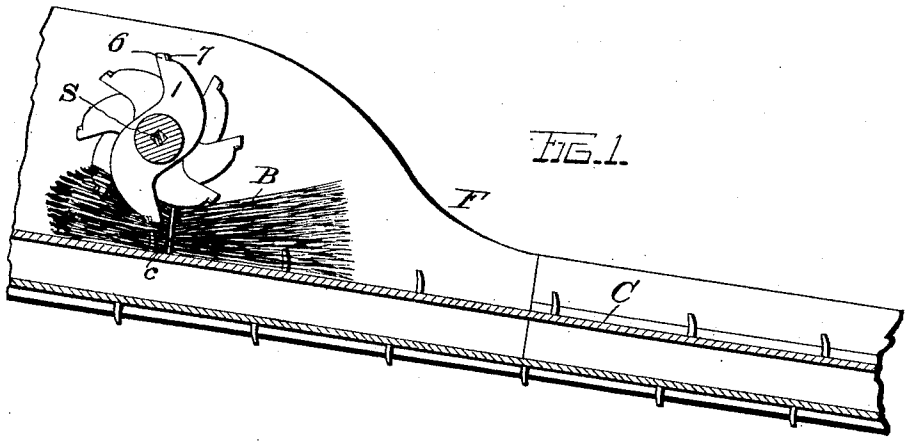


FIG. 1.

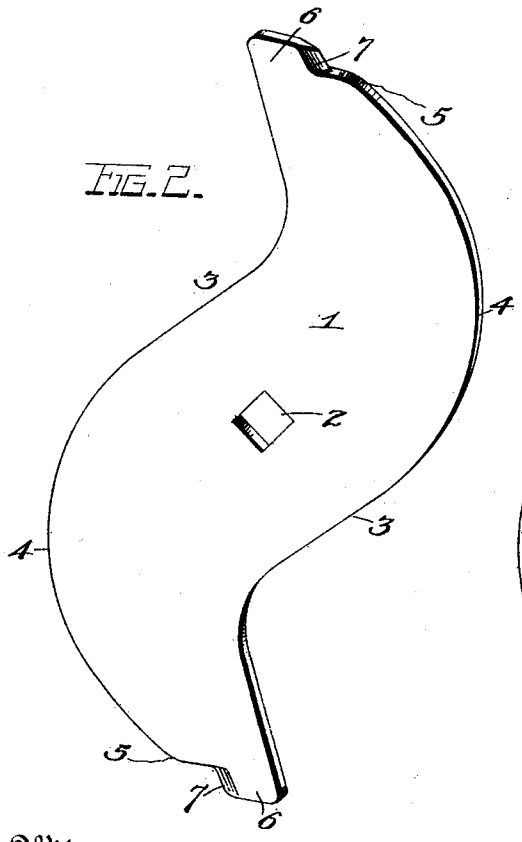


FIG. 2.

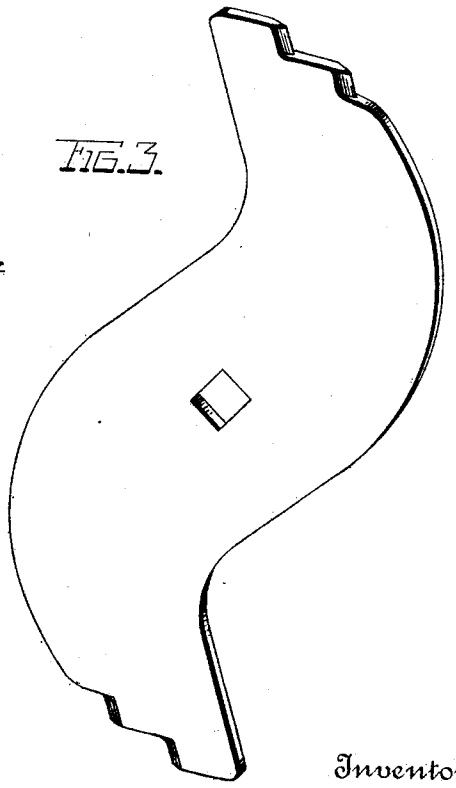


FIG. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN M. WHITCOMB, OF REDWOOD FALLS, MINNESOTA.

BAND-KNIFE.

1,107,004. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed January 8, 1914. Serial No. 811,055.

To all whom it may concern:

Be it known that I, JOHN M. WHITCOMB, a citizen of the United States, residing at Redwood Falls, in the county of Redwood and State of Minnesota, have invented certain new and useful Improvements in Band-Knives; 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 which it appertains to make and use the same.

This invention relates to improvements in band knives to be used in connection with automatic feeders for threshing machines.

The primary object of the invention is to so construct a knife of this character as to render back lashing practically impossible.

A secondary object is to provide a knife of this character having means for stretching the cord around the bundle of grain and thereby facilitating the cutting thereof.

With the above and other objects in view, the invention resides in certain novel features of construction and combination herein described and claimed and shown in the drawings wherein—

Figure 1 is a vertical section through a portion of an automatic feeder showing the application of my improved band knife; Fig. 2 is a perspective view of one form of my invention; and Fig. 3 is a similar view showing a slightly different form.

In the embodiment illustrated, I have shown a portion of an automatic feeder F having the usual conveying belt C for conveying the bundles B beneath the rotating shaft S on which my improved cutters are mounted in any suitable manner.

In Figs. 1 and 2 I have shown my invention as constructed of a flat metal plate 1 having a polygonal hole 2 at its center, its opposite edges being cut substantially on ogee curves as shown at 3, thus forming cam faces 4 on the forward edges of the plate. One end of each edge of the plate is curved in rather abruptly as shown at 5 for a purpose to appear and spaced a suitable distance from the curved portion 5 is a cutting blade 6 whose active edge 7 is disposed at an angle to the edge of the plate which it faces. It is to be noted that the edges of the plate 1 are not sharpened, the active edges 7 of the blades 6 performing the cutting actions while the cam faces 4 merely compress the cord *c* around the bundle B. This action on the part of the cam faces 4, will of course draw the cord very tight around the bundle and when the cutter has revolved to such an extent as to allow the cord to spring past the curved portion 5, said cord will come into forcible engagement with the cutting edge 7 of the blades 6.

It is a well known fact that when many forms of cutters are used in connection with self feeders, the cutting edge of the cutter is prone to catch the cord *c* around the bundle B and thus tend to wind said cord around the cutter supporting shaft S. This is due to the fact that the majority of cutters for the above purpose have a continuous cutting edge throughout their length, and when said edge becomes dulled or nicked, it will catch, as above stated, on the cord and produce the undesirable effects before stated. In order to overcome the difficulties heretofore experienced with knives of this character, I have devised the herein described band knife which as shown, has a comparatively small cutting surface, the majority of its length being entirely smooth for the above mentioned purposes.

Although I have described my invention with considerable minuteness, I do not wish to be unduly limited to details. As illustrative of this, I have shown my improved band knife in Fig. 3 as provided with two sets of cutting blades at each of its ends, the obvious reason being to insure the cutting of the band before the bundle enters the thresher, the second blade cutting the band should the first one fail to do so.

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

1. A device of the character described comprising a flat plate having its edges cut substantially on ogee curves and integral cutting blades projecting from the opposite ends of said plate and of less width than said ends, said curved edges forming oppositely

disposed compressing cams and the cutting edges of said blades facing said cams and being spaced therefrom.

2. A band cutter knife comprising a flat plate having a dull curved cam compressing edge terminating at one end in a cutting edge which is spaced from and disposed at an angle to said compressing edge.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN M. WHITCOMB.

Witnesses:
ISABELLE HATCH,
A. D. MCRAE.

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