

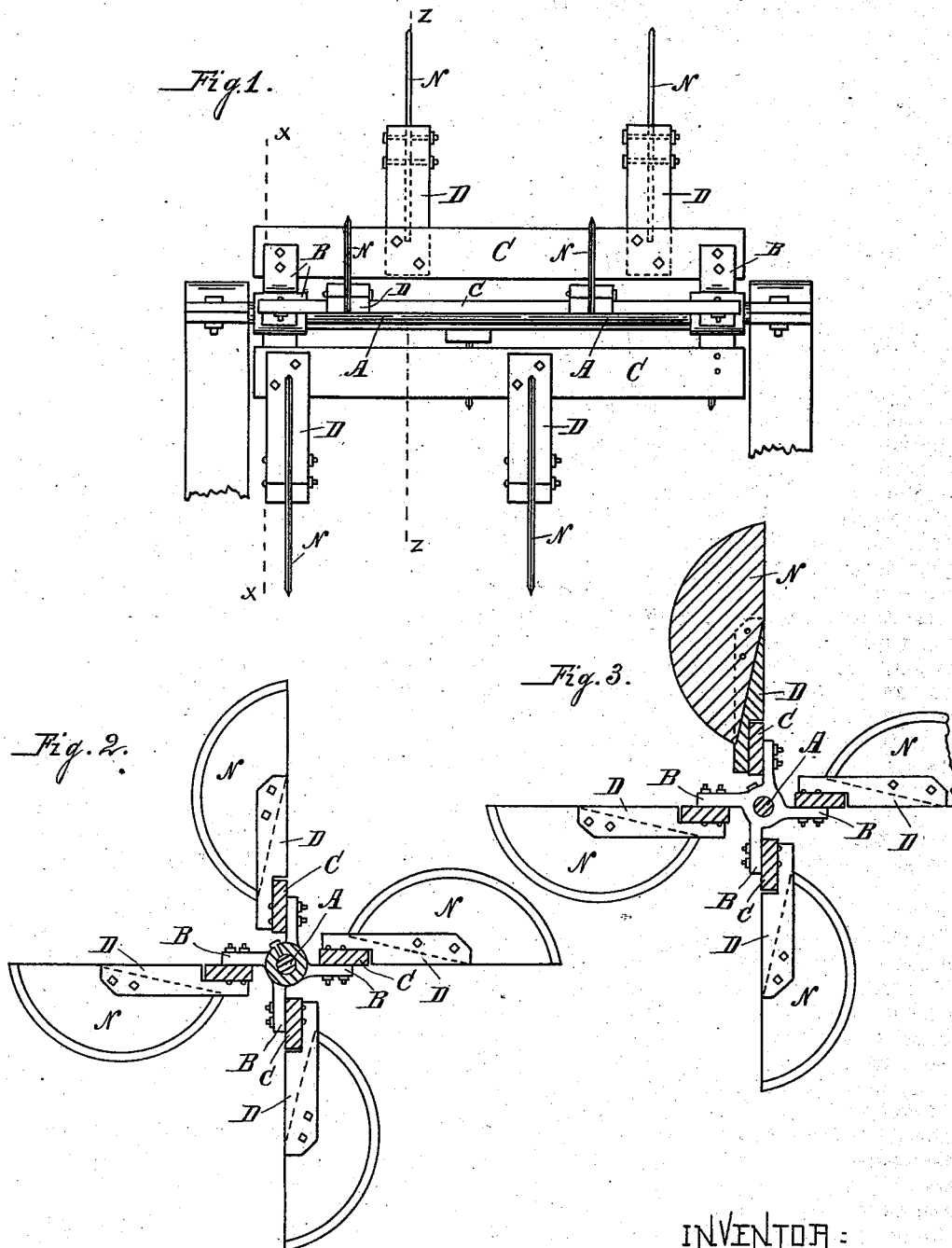
(No Model.)

J. BUCHANAN.

BAND CUTTER.

No. 382,686.

Patented May 15, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES BUCHANAN, OF INDIANAPOLIS, INDIANA.

BAND-CUTTER.

SPECIFICATION forming part of Letters Patent No. 382,686, dated May 15, 1888.

Application filed June 4, 1887. Serial No. 240,250. (No model.)

To all whom it may concern:

Be it known that I, JAMES BUCHANAN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Band-Cutters, of which the following is a specification.

The objects of my improvements are to provide a band-cutter such as are attached to thrashing-machines to cut the bands of the sheaves of grain, which can be easily adjusted in regard to the number of cutting-knives desired, which, without much trouble or loss of time, can be repaired when needed, and one that can be perfectly balanced, while it will not become clogged by the straw winding upon the cutter shaft. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved band-cutter; Fig. 2, a vertical cross section through the same on line *xx* on Fig. 1, and Fig. 3 a vertical cross section on line *zz* on Fig. 1.

Similar letters refer to similar parts throughout the several views.

A is the rotating shaft that supports the cutter-knives N N. The said knives N N are secured to the shaft in the following manner: Near each end of the shaft A a four-armed iron spider, B, is placed upon the shaft, the said spiders being slipped onto the shaft and secured to the same by set-screws or other suitable means. Then the lateral wooden guard-bars C C, extending from one end of the cutter-shaft to the other, are firmly secured by bolts or other means to the arms of the spiders. The spider-arms being short and the guard-bars consequently in close proximity to the shaft A, the straw when passing under the band-cutter is prevented from winding upon the shaft A. To the guard-bars C C are secured, at such points as desired, the wooden knife-holders D D by bolts, screws, or the like. To these knife-holders are bolted the half-circular thin knife-blades N N in such a manner that the sharp convex edge of each blade is to the front when the band-cutter is rotating.

Each blade N being secured to a separate holder D, as many blades and holders can be placed upon the guard-arms C C as will be needed to allow no sheaf of grain to pass the band-cutter without having all of its bands cut. This construction also permits the blades to be adjusted upon the cutter-shaft in such a manner that the entire cutter can be perfectly balanced, causing it to run smoothly when rapidly revolving. Further, when it becomes necessary to sharpen the knives or to replace broken ones, it can easily be done without taking the entire device apart, as each knife can be either disconnected from its holder or with the holder can be taken from the guard-arm. By using wooden guard-arms and wooden knife-holders and connecting the different parts, as described, the chances for breakages are reduced to a minimum.

While iron is liable to bend or break by a sudden jar or by coming in contact with a stone or other hard substance that may be concealed in the sheaves, wood will, on account of its greater elasticity and flexibility, last longer and endure rougher usage and harder work. The thin half-circular knife-blades N N are made from saw-blades, and will cut better and last longer than knives made in any other shape or of cast metal.

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

In a band-cutter for thrashing-machines, the combination, with the revolving cutter-shaft A, of the removable short-armed iron spiders B B, the wooden guard-bars C C, the removable wooden knife-holders D D, and the thin detachable metal knife-blades N N, all arranged as described, and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES BUCHANAN.

Witnesses:

THEODORE LANGBEIN,
ROBERT P. DAGGETT.