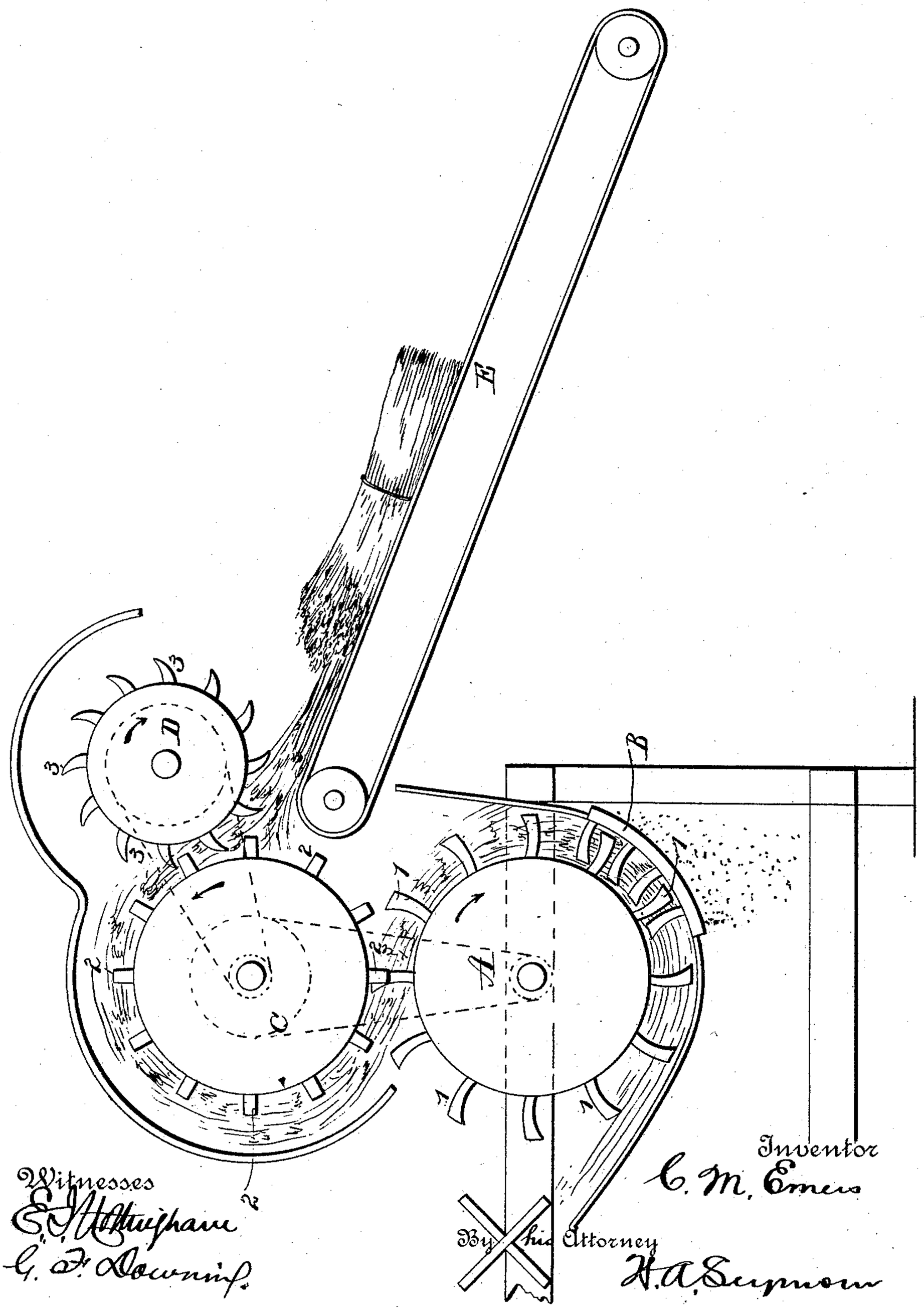
(No Model.)

C. M. EMEIS.

BAND CUTTER AND FEEDER.

No. 442,964. Patented Dec. 16, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES M. EMEIS, OF DAVENPORT, IOWA.

BAND-CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 442,964, dated December 16, 1890.

Application filed June 26, 1890. Serial No. 356,865. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. EMEIS, of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Band-Cutters and Feeders; and I do hereby 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.

My invention relates to an improvement in band-cutters and feeders for thrashing-machines, the object being to provide improved mechanism for cutting the bands of grain-sheaves and scattering and spreading the straw, so that it can be reached and effectually stripped of its grain.

With this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

The accompanying drawing is a sectional view through the machine, showing the feeding cylinders.

A represents the ordinary thrashing-cylinder, it having teeth 1 1 secured thereon and operating in the usual way with the concave B to remove the grain from the heads. Above cylinder A is a second cylinder C, preferably having shorter teeth 2 2, which assist in separating and distributing the straw in the cylinder-chamber. Still another cylinder D is journaled slightly above and in front of cylinder C, and this cylinder is also furnished with knives 3 3, which operate to cut the band and also to hold the straw, so that between the two cylinders C and D the straw is thoroughly loosened and spread within the cylinder-chamber, so as to be in the most convenient position for the separation of the grain. Gearing is furnished the several cylinders to regulate the relative speed of each, the speed of cylinder A being preferably about ten times as fast as the speed of cylinder C, and that of cylinder C about ten times as fast as the speed of cylinder D, so that the speed of cylinder A is very rapid and the speed of cylinder D is slow, and the movement of the grain consequently is gradually accelerated as it passes through the feeding apparatus.

An endless belt E is located in the throat of the machine, preferably upon a slight inclination, and the bundles or loose grain are simply thrown onto the belt, and thence the entire operation of cutting, spreading, or distributing, and finally thrashing and separating, is automatic.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. The combination, with a thrashing-cylinder and concave, of a toothed cylinder geared to operate at less speed than the thrashing-cylinder, a second toothed cylinder adapted to prepare the grain for its entrance between the other cylinders and geared to operate at less speed than the rest, and an endless feed-belt for carrying the grain to the cylinder, substantially as set forth.

2. The combination, with a thrashing-cylinder and concave, of a toothed cylinder located in proximity to the thrashing-cylinder and geared to operate at less speed than the thrashing-cylinder, a second cylinder located in advance of the upper cylinder and adapted to prepare the grain for its entrance between the other cylinders and geared to operate at less speed than the rest, and an endless feed-belt for carrying the grain to the cylinder, substantially as set forth.

3. The combination, with a thrashing-cylinder and concave, of a toothed cylinder located in proximity to the thrashing-cylinder and geared to operate at less speed than the thrashing-cylinder, and a second toothed cylinder located in front of the upper cylinder and adapted to prepare the grain for its entrance between the other cylinders and geared to operate at less speed than the rest, running in the same direction at the point of contact, substantially as set forth.

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

CHARLES M. EMEIS.

Witnesses:
MONROE EBI,
GEORGE F. NEUMAN.