L. COSSITT.

STRAW-CUTTER.

No. 172,393. Patented Jan. 18, 1876.

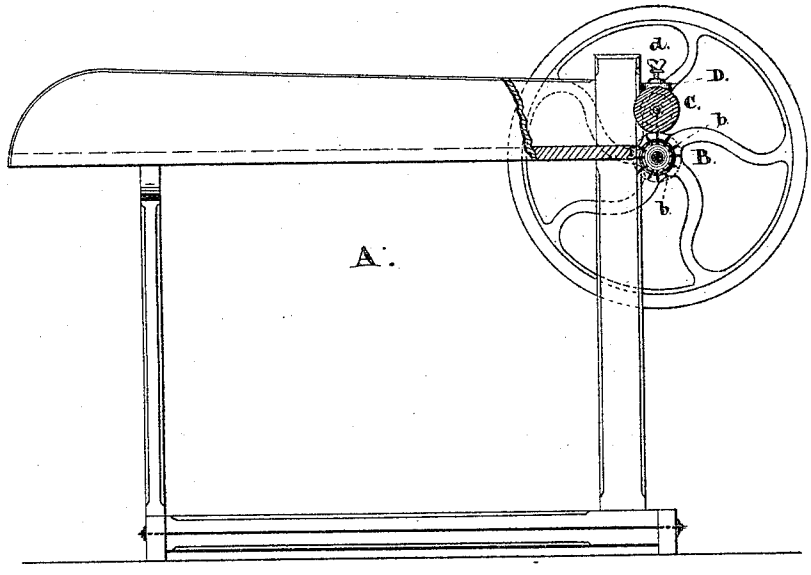

Fig. 1.

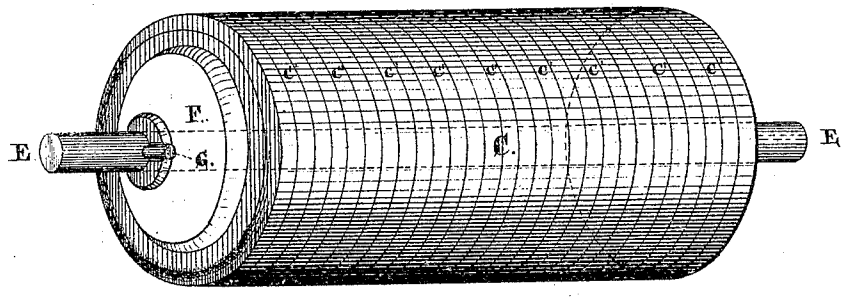

Fig. 2.

Witnesses:

Joseph Taylor

Robt Kilpatrick

Inventor:

Levi Cossitt

per Ridout, Maybee & Co.

Attys.

UNITED STATES PATENT OFFICE.

LEVI COSSITT, OF GUELPH, CANADA.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. **172,393**, dated January 18, 1876; application filed December 8, 1875.

To all whom it may concern:

Be it known that I, LEVI COSSITT, of the town of Guelph, in the Province of Ontario, Canada, have invented Improvements in Feed-Cutting Machines, of which the following is a specification:

My invention has relation more particularly to an improvement in that class of hay and straw or feed cutters in which a series of spirally-arranged knives are secured to a roller or shaft in such manner that they all radiate from the center of the said roller, and, acting in combination with an upper roller, not only cut but feed the hay or straw forward.

My invention consists of a paper roller formed from a number of disks of paper of any thickness, and of equal diameter, which disks are mounted upon a central shaft and subjected to great pressure, compressing them to form a close solid roller of paper. The disks are held together by washers and pins, or any equivalent contrivance, placed in position before the pressure is removed.

The object of my invention is to provide a cheaper and more durable roller for the knives on the under roller to act against in cutting than has hitherto been in use.

In the accompanying drawings, Figure 1 is a sectional side view of a hay and straw cutter fitted with my improved upper roller. Fig. 2 is a detail in perspective of the paper roller.

A is the cutter built in the ordinary style of this class, in which B is the knife-roller provided with the radially and spirally placed knives *b*. C is the upper roller, occupying the usual position, and performing the usual duties of an upper roller on this class of machine—that is, feeding, in connection with the under roller, the hay or straw forward, and acting as a cutting-bed for the knives. D are standards, within which the roller-shafts revolve, *d* being the spring compression-screw for the upper roller. The paper roller C is composed of a number of disks of paper, C^1, of, say, equal diameter, or slightly reduced toward each end of the roller, centrally perforated, and mounted upon a shaft, E, under pressure sufficient to compress them into a close solid roller of paper. The disks are secured when compressed, and before the pressure is removed, by the end plates F and pins G, which pins pass through tapering holes drilled through the shaft E.

It is evident that there are various ways in which the paper disks could be confined under pressure on the shaft, such as by a nut and screw at each end, or by bolts passing longitudinally through the disks; therefore, I do not limit my claim to the exact manner of clamping shown, although I believe it to be the best and cheapest.

The great objection to the rawhide roller at present in use is its expense, in the first place, and the rapidity with which it wears out under the constant action of the knives *b*.

The advantages accruing to my roller are, it is cheap, and easily made, and it is very durable, as the knives do not have the same chopping effect on the surface of the tough compacted paper that they have on the rawhide.

I claim as my invention—

The upper feed and knife bed roller C, consisting of one or more centrally-perforated disks of paper, C^1, mounted on the shaft E, and compacted under pressure to form a close solid roller of paper, the said disk or disks being retained in a compressed state by the washers F and pins G, or their equivalent, substantially as shown and described.

LEVI COSSITT.

Witnesses:

JNO. MARTIN,

H. MARTIN.