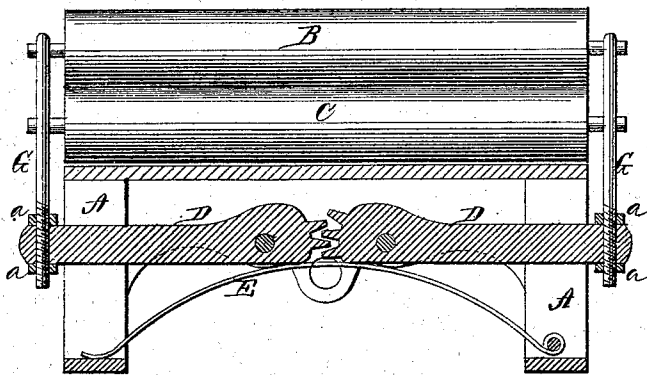


J. H. SHARP.

Feed-Rollers for Straw-Cutters.

No. 136,774.

Patented March 11, 1873.



Witnesses
John C. Davis
Wm. H. Ellis

Inventor
John H. Sharp.
Per
J. R. Alexander & Co.
attys.

UNITED STATES PATENT OFFICE.

JOHN H. SHARP, OF DOYLESTOWN, PENNSYLVANIA.

IMPROVEMENT IN FEED-ROLLERS FOR STRAW-CUTTERS.

Specification forming part of Letters Patent No. **136,774**, dated March 11, 1873.

To all whom it may concern:

Be it known that I, JOHN H. SHARP, of Doylestown, in the county of Bucks and State of Pennsylvania, have invented certain new and useful Improvements in Vibrating Rollers for Straw-Cutters and other purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a device connected with the rollers of a straw-cutter or other machine, where one roller is used on top of another, whereby both ends of the upper roller are caused to rise at the same time when anything is forced between the rollers at one end, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a longitudinal section of my invention.

A represents the frame or box of the machine, to which my invention is applied, B being the upper, and C the lower, rollers. D D represent two arms or levers, provided with cogs on their inner ends which gear in each other. E represents a single steel spring, supported in the frame A, and with its center bearing against the under side of the inner ends of the arms or levers D D, one end of said spring being held stationary by a pin or other suitable means. G G represent screw-

rods, screwed into and fastened by nuts *a a* to the outer ends of the arms or levers D D, and their upper ends fitting over the journals of the upper roller B, by which the tension of the spring may be adjusted.

If any substance is forced between the rollers B and C at one end, this end of the upper roller B will, of course, rise correspondingly with the thickness of such material, and, through the medium of the connecting-rods G G and arms or levers D D, the other end of said roller will also be forced up the same distance; or, in other words, at whatever point any material is forced between the rollers, the upper roller will rise perfectly level, and thereby prevent any strain on the gearing, which always takes place when one end of the roller is up and the other down.

This equalizing device is applicable to a variety of machines, and I do not confine myself in its application to any particular machine or machines.

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

The combination, with rollers B and C, of the cogged arms or levers D D, spring E, and rods G G, connecting the arms with the journals of the upper roller, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN H. SHARP.

Witnesses:

JAMES GILKYSON,
MATHEW GIBNEY.