

H. Marx.
Wood Grinding App's.
N^o 84,640. Patented Dec. 1, 1868.

Fig: 1.

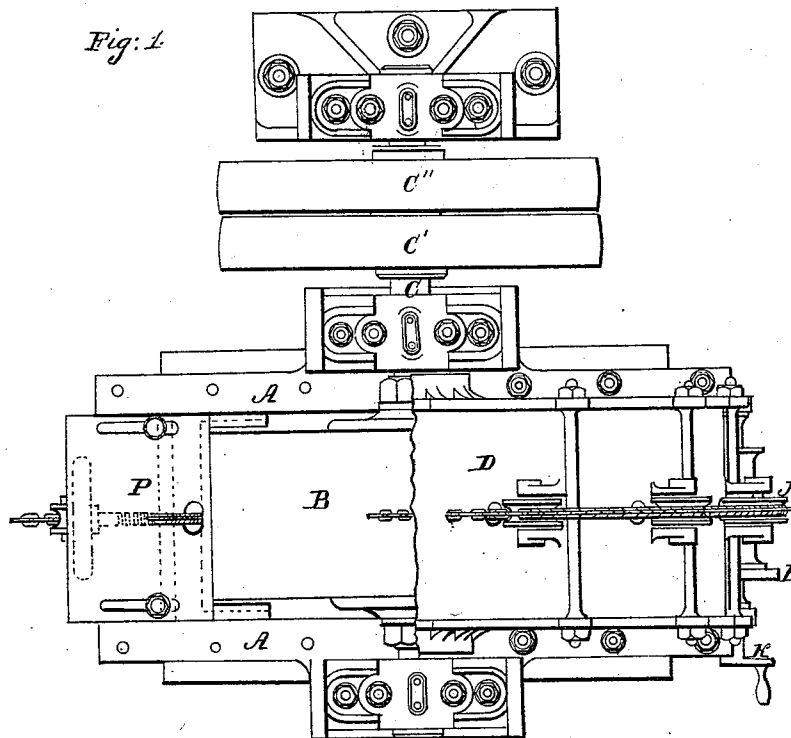
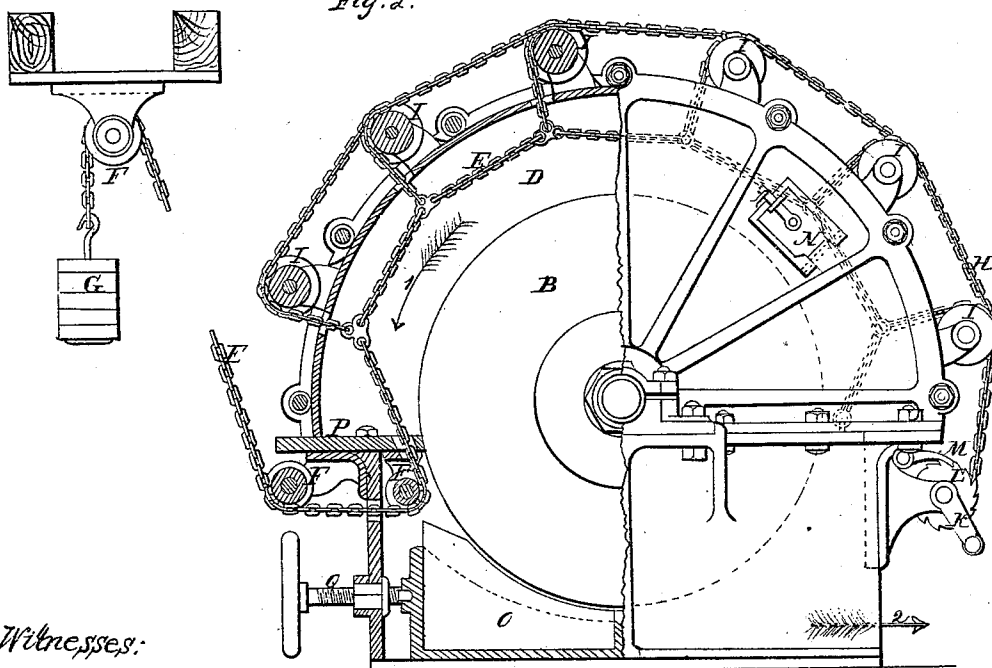


Fig: 2.



Witnesses:
Chas. H. Paulding,
W. B. Deming

Inventor:
Henry Marx
By [Signature]

UNITED STATES PATENT OFFICE.

HENRY MARX, OF PIKESVILLE, MARYLAND.

IMPROVED APPARATUS FOR REDUCING WOOD TO PAPER-PULP.

Specification forming part of Letters Patent No. **84,640**, dated December 1, 1868.

To all whom it may concern:

Be it known that I, HENRY MARX, of Pikesville, in the county of Baltimore and State of Maryland, have invented a new and useful Apparatus for Making Paper-Pulp; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are made a part of this specification.

My invention consists in certain improvements in machinery for grinding wood for the production of paper-pulp.

My improvements consist, first, in a provision whereby the wood separated from the blocks is reground by the same stone, and thus made so fine that sieves may be dispensed with; second, in an arrangement by which the stone may be made to act around a larger portion of its periphery; third, in devices for holding and pressing the blocks of wood against the stone, and permitting their ready insertion and removal.

In the drawings, Figure 1 is a plan view of my improved apparatus with a part of the casing removed. Fig. 2 is an end elevation of the same, partly in section.

A A may represent various parts of the stationary frame, in which is mounted a grind-stone, B, driven by a shaft, C, which is preferably provided with fast and loose pulleys C¹ C².

The blocks to be ground are placed in the box or casing D surrounding the upper part of the stone, and are held and pressed against the surface of the stone by a chain, E, partially surrounding the stone and blocks and passing around pulleys F, so that the weight G, acting upon the said chain, will cause the blocks to press toward the center of the stone from all directions.

A counter-chain, H, passing over pulleys I and having a number of branches connected to the chain E at proper intervals, serves to draw the said chain E away from the stone, when required, for the introduction of fresh blocks.

The counter-chain H may be wound up by

a windlass, J, operated by a crank, K, and held by ratchet-wheel L and pawl M while blocks are being introduced.

Any number and arrangement of doors N may be employed in the casing for the introduction of the blocks of wood, and the said doors may be secured by any suitable device.

The lowest block on that side toward which the stone revolves is supported by a plate, P, which may be adjustable to suit varying diameters of the stone.

The wood-fibers, as they are separated from the blocks by the stone B, descend to a stationary, but adjustable, stone, O, between which and the stone B they are reground. By this means they are made so uniformly fine that sifting or straining is unnecessary.

As the stones wear away the stone O is set up to the stone B by a screw, Q, or other suitable means.

Arrow 1 indicates the direction in which the stone B revolves.

Water may be supplied to the stone in any convenient way from above, and the pulp is discharged from the casing below, as shown by arrow 2.

Straps or cords may be substituted for either or both the chains E and H, if preferred.

What I claim, and desire to secure by Letters Patent, is—

1. The stone O, employed for regrinding fragments separated from the blocks by the stone B, substantially as and for the purpose explained.

2. The chain E, employed to hold or press the blocks to the surface of the stone B, substantially as explained.

3. The counter-chain H, for retracting the chain E for the insertion of fresh blocks.

To the above specification of my invention I have signed my hand this 5th day of November, 1868.

HENRY MARX.

Witnesses:

OCTAVIUS KNIGHT,
W. B. DEMING.