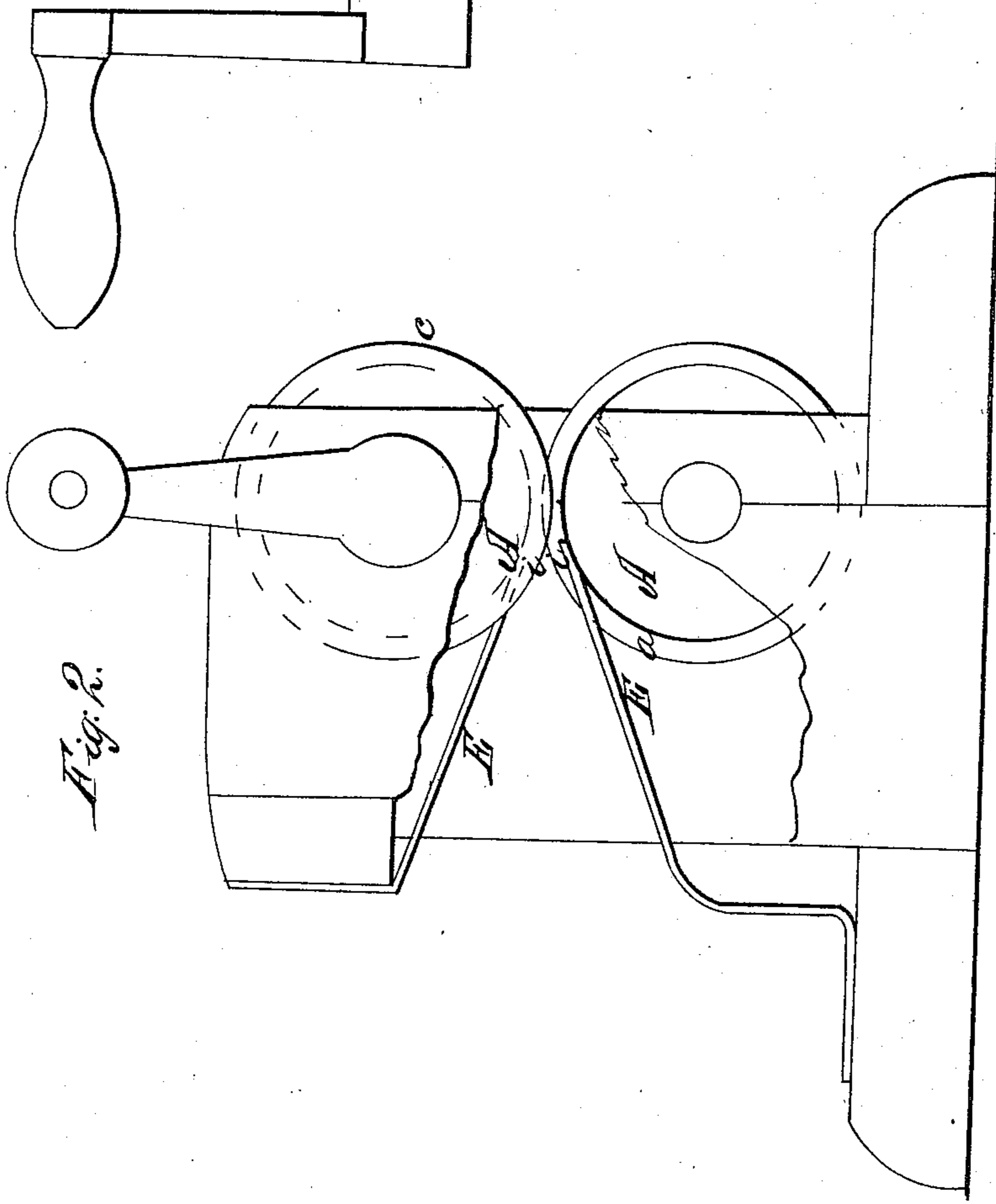
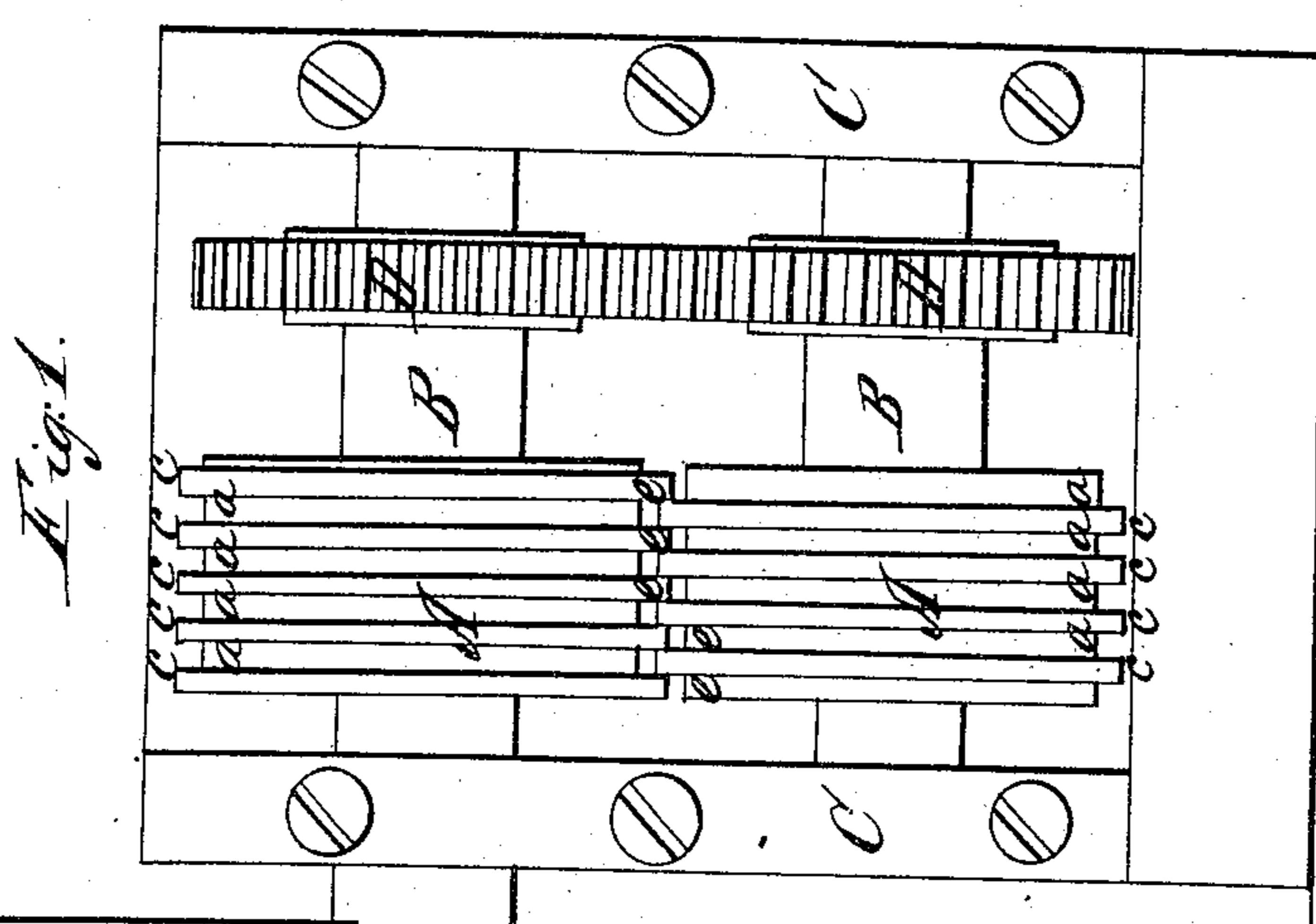
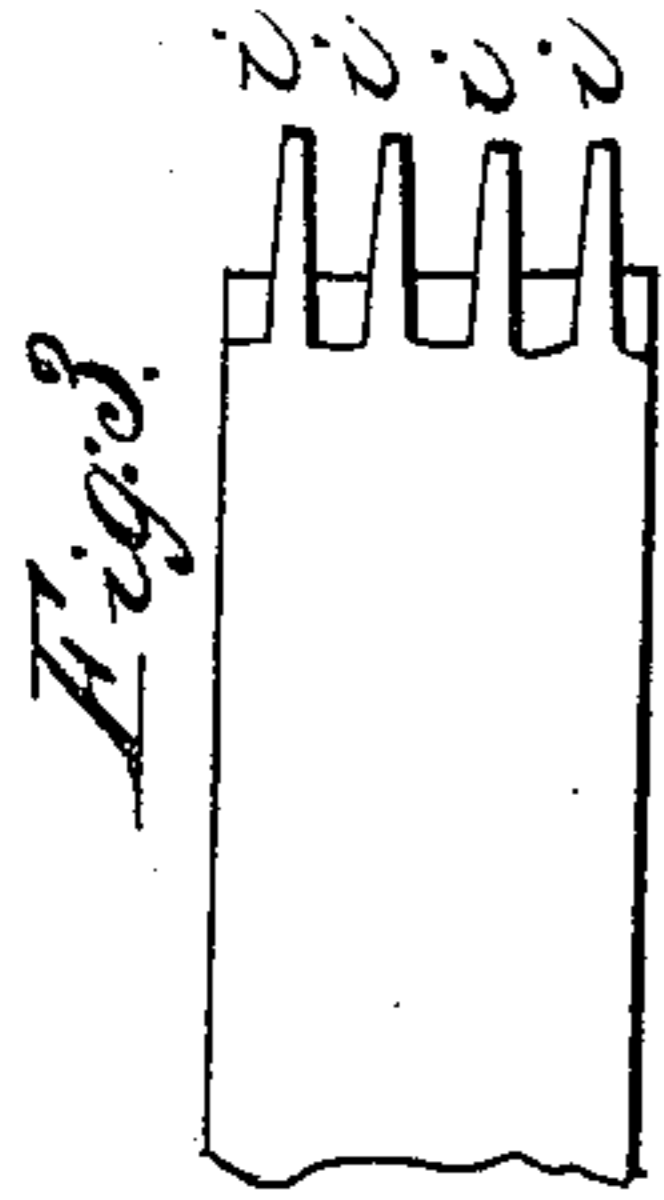


J. W. WHEELER.

MACHINE FOR PREPARING SPLINTS FOR BROOMS, &c.

No. 19,971.

Patented Apr. 13, 1858.



UNITED STATES PATENT OFFICE.

J. W. WHEELER, OF CLEVELAND, OHIO, ASSIGNOR TO HIMSELF AND C. D. WILLIAMS, OF SAME PLACE.

MACHINE FOR MANUFACTURING SPLINTS FOR BROOMS.

Specification of Letters Patent No. 19,971, dated April 13, 1858.

To all whom it may concern:

Be it known that I, JOHN W. WHEELER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and
5 useful Improvements in Machinery for Preparing Splints for Manufacturing Brooms; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, refer-
10 ence being had to the accompanying drawings, and to letters of reference marked thereon, making part of this specification.

Figure 1 is a front view of the machine. Fig. 2 is an end view, with a part of the
15 frame removed, for the purpose of showing the various parts in their proper proportions and relations. Fig. 3 represents the comb.

The purpose for which this machine is intended is to divide the splints made from
20 the ash tree or other timber into narrow strips of uniform width, thus preparing them for manufacture of brooms, brushes, or similar structures.

A, Figs. 1 and 2, represent the cylinders,
25 which should be made of iron or steel, from two and a half to three inches in diameter, and about three inches length. These cylinders are placed upon shafts B, B, which are supported by journals resting in the frame
30 of the machine, C. A pair of cog gears D, D, are placed upon the shafts. These gears work into each other and cause the cylinders to move in concert. The cylinders A, should be made of steel, and the face
35 of each turned in a lathe into a series of grooves, as seen at *a, a, a, a*, and having a depth of one fourth of an inch or more. The tongue or rib, *e, e, e, e*, that occupies the space between the grooves is in width
40 just equal to the grooves, and the cylinders are so placed upon the shaft that the tongues or ribs of one fit into the grooves of the other, as seen at *e, e, e, e*, leaving about two thirds of the space of the depth of the
45 groove between the face of the tongue and

the bottom of the groove. The sharp angles of the two sets of tongues thus revolving in contact at their peripheries, and their edges or angles passing each other, as seen
50 *e, e, e*, any substance that is passed between them when they are in motion will be divided into narrow strips having just the width of the grooves and tongues. In other words, if a splint of wood or other tissue is
55 passed between them they will be cut into strips of a uniform width, corresponding to the width of the groove and tongue. For the purpose of preventing these strips from becoming wedged into the grooves into
60 which they are necessarily pressed in the working of the machine, as the cylinders revolve, I introduce two steel combs E, E, seen in Fig. 2 in their proper position and in section in Fig. 3. The teeth of these
65 combs, seen at *i, i, i, i*, Figs. 2 and 3, fit closely into the bottom of the grooves, and by this means the cut splints or strips are removed from the grooves into which they
70 have been pressed by the working of the machine. Otherwise these grooves would soon become filled, which would prevent the further action of the machine.

The cylinders may be propelled by hand power, by means of a crank, or by any other
75 motive power, as may be found most convenient.

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

The grooved cylinders A, A, the periphery of whose tongues or ribs *e, e, e, e*,
80 pass each other as seen at *e, e, e, e*, the edges being in contact and acting like revolving shears, when arranged in combination with the delivering combs E, E, all operating in the manner and for the purpose set forth. 85

JOHN W. WHEELER.

Witnesses:

CHARLES D. WILLIAMS,
JOHN BRAINERD.