(No Model.)

F. MERZIGER.

BARK PEELING MACHINE.

No. 305,322. Patented Sept. 16, 1884.

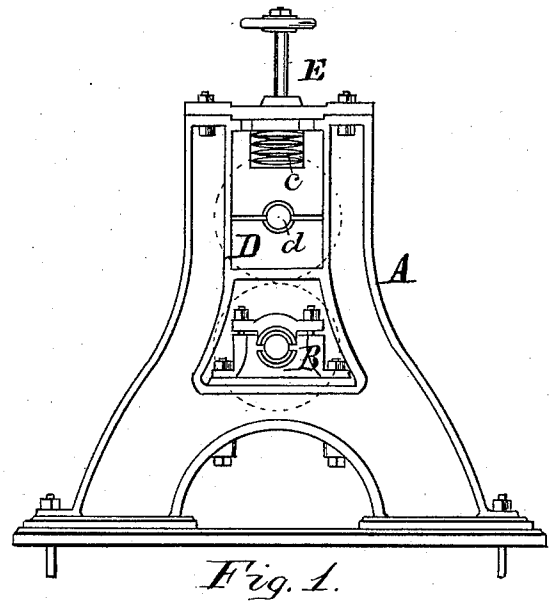


Fig. 1.

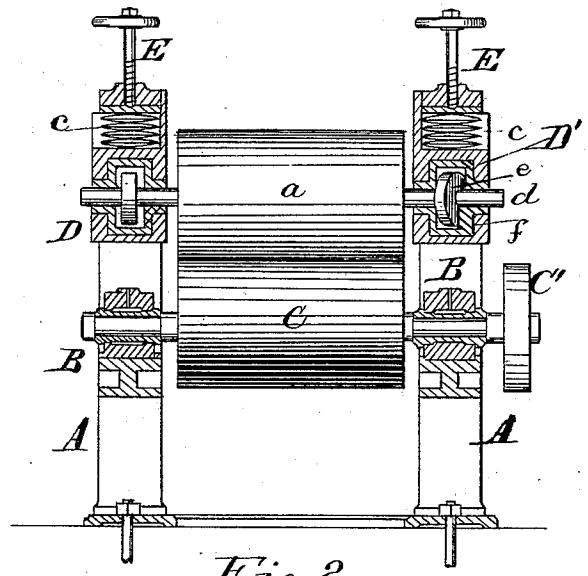


Fig. 2.

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UNITED STATES PATENT OFFICE.

FRANZ MERZIGER, OF TRIER, PRUSSIA, GERMANY.

BARK-PEELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 305,322, dated September 16, 1884.

Application filed September 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANZ MERZIGER, of the city of Trier, in the Kingdom of Prussia and German Empire, have invented certain new and useful Improvements in Rollers for Peeling the Bark from Wood, fully described in the following specification.

My invention relates to improvements in rollers for peeling the bark from wood.

In operating on wood by means of my improved machine, as described in my application for Letters Patent dated November 3, 1882, it has been found advisable to subject the wood (trunks of trees, parts of the same, and such like) to a preliminary or preparatory operation, which operation consists in subjecting the wood to the pressure of a pair of rollers, which rollers revolve with like rapidity and act simultaneously on the wood. The barking or peeling off the bark from the wood is effected by pressure when it is desired not to injure the wood and to keep the bark free from particles of wood. This operation is effected by by the pressure of the preliminary rolling operation employed according to my invention. In order that this operation be effectually carried out and pressure exercised on each part of the wood by the preparatory rollers, they must be of such shape or the movement of the same be so arranged that the wood receives a rotary motion in passing the rollers. The form of the rollers is varied according to the different material to be operated on. If it is desired to prevent the bark or rind from being damaged or injured, plain rollers are employed; but if the bark or rind is to be split or divided, milled rollers or rollers provided with knives or cutters or sharp edges are employed, which cutters or sharp edges are arranged parallel to the ends of the rollers. If it is desired to separate or cut up the said bark or rind into small pieces, or to partially grind off the same, the rollers are provided with spirally-milled or other appropriately-formed surfaces. If the woods are specially adapted to the purpose, the bark or rind will be entirely loosened from the wood, so that the further operations on the same are rendered superfluous.

Figure 1 is an elevation of one end of my improved bark-peeling machine. Fig. 2 is a sectional elevation of the machine.

In the annexed drawings, A A designate standards, which are adapted to support the peeling-rollers, and B B are fixed journal-boxes, in which the shaft of the lower horizontal roll, C, has its bearings, on which shaft is a belt-wheel, C'. The roller C is a right cylinder, and its surface may be smooth or roughened, according to the character of the work to be operated on. Above this roll is a roll, *a*, the shaft *d* of which is parallel to the shaft of the roll C, and this shaft *d* has its bearings in journal-boxes D D', which are allowed vertical movement, and which are preferably held down by springs *c c*, the tension of which may be regulated by means of hand-wheel screws E E, tapped through the heads of the standards A A, as shown in the drawings. The journal-boxes D D' are movable vertically in guides, which prevent them from receiving endwise movement. On the shaft *d* of the roll *a* is keyed a cam, *e*, which is a disk placed obliquely on said shaft, the outer surface of which impinges against the outer oblique side of the journal-box D', so that during the rotation of the upper roll it will be caused to reciprocate endwise. A horizontal arrangement of the two rolls is preferable when they are employed as preparatory rolls, in combination with my improved machine described in my Letters Patent above referred to.

I am aware that it is not new in osier or bark peeling machines to employ endwise-movable peeling-rolls, nor is it new in rotary planing-machines to give endwise movement to the rotary cutters, and such devices I do not broadly claim.

Having described my invention, I claim—

In a bark-peeling machine, the combination, with the standards A A, of the lower roll, the shaft of which is journaled in stationary boxes, an upper roll, the shaft of which is journaled in vertically-movable boxes, a cam, *e*, obliquely fixed on the shaft of the upper roll, and a box, D', which co-operates with said cam for giving the said upper roll endwise movement during its rotation, substantially as described.

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Witnesses:
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