UNITED STATES PATENT OFFICE.

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WOOD-CUTTING MACHINE.


Application filed June 3, 1901. Serial No. 52,953. (No model.)

To all whom it may concern:

Be it known that I, EMIL WUHRMANN, a citizen of the Republic of Switzerland, and a resident of 18 Kinkelstrasse, Zurich, Switzerland, have invented new and useful improvements Relating to Wood-Cutting Machines, of which the following is a specification.

The subject-matter of this invention is a cutting-machine by which wood blocks can be cut into prisms such as are used for the construction of inlaid or parquet blocks.

The invention is illustrated, by way of example, in the accompanying drawings, in which—

Figure 1 is a longitudinal elevation, partly in section. Fig. 2 is a plan corresponding thereto, and Fig. 3 is a transverse section.

As illustrated in the drawings, two spindles b b' are located beneath the table or frame a of the machine, and on each of these spindles a group of eleven circular saws c are mounted and protrude through slots a', provided in the table a. The table is provided lengthwise with ledges a" a"', within which a slide d is capable of sliding to traverse the length of the table a. The slide d is provided with an upwardly-projecting flange or boss d', within which is formed a circular aperture e, in which is inserted a perforated sheet-metal disk f, as well as a plate i, provided with pins g and a spindle h, carrying said plate, as well as a cover k, surmounting the plate i aforesaid.

The operation of the machine is as follows: The slide d is cut away at e, Fig. 1, for the introduction beneath the perforated disk f of the cross-grained wood block of which the prisms are to be formed. The cover k is carried, by means of pins k' in slots d", within the flange or boss d', and on movement of the handles k k' in the direction of the arrow the cover k is lowered. By this movement the plate i, provided with pins g, descends and the pins are forced into the cross-grained wood block. As the latter in consequence of this movement would press too greatly on the table a, and thus impede the forward movement of the slide d, the slots d" are made in such a way that they cause the pins g, and with them the cover k and plate i, to rise a little at the extremity of the turning movement, thereby diminishing the pressure on the table without allowing the pins g completely to pass out of the block. The pins g, however, only pass into the block to a small extent, less than the distance left by the saws c. The lever h', by which the rotation of the plate i is effected, is placed against the stop d', provided on the flange or boss d'; and the slide d, together with the cross-grained wood block, is conducted over the first set of saws c into the position indicated in dotted lines in Fig. 2. The wood block is thus cut into strips in a longitudinal direction to a width equal to that of the prisms to be produced. The lever h' is then turned, for example, to an angle of ninety degrees, if cubes are to be produced, so that it rests against the stop d' on the flange or boss d'. As the cover k and the plate i are independent of each other, it will be understood that only the latter is turned by the movement of the lever h', the wooden strips of the block being at the same time moved. The slide d is now passed over the second set of saws till it reaches the position above the aperture a" in the table a. The wooden strips are thereby cut in another direction, and prisms are formed of a shape corresponding to the determined angle. The cover k is now turned back by the handles k' k' and is thereby lifted by the pins k passing into a higher position in the slots d''. The cover strikes under the lever h' and also lifts the plate i, with the pins g, by means of which the wooden prisms are also lifted. The upward movement of the prisms, however, is arrested by the perforated sheet-metal disk f, which strips the prisms from the pins on their further upward movement. It will therefore be understood that the prisms can be collected from beneath the aperture a" in the table a or be transmitted, by means of a conveyer, to another machine to be further operated upon. The sheet-metal disk f is movable in a groove d" and is turned by the rotation of the lever h', as the pins g are never completely extracted from i. After the wooden block has thus been completely cut into prisms the slide is returned to its former position and the lever h' put back against the stop d', whereupon the machine is ready to operate upon another wooden block.

The machine can be equipped with two sets of circular saws, so that one movement of the slide suffices to completely cut the block into
prisms. One set, however, may suffice, as by conducting the slide repeatedly over the saws after successively turning the blocks the same result can be effected.

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

1. In a machine for cutting prismatic blocks in combination, a table, circular saws mounted thereon, a slide traversing said table, and means within said slide for rotating the wood block from which the prismatic blocks are cut.

2. In a machine for cutting prismatic blocks in combination, a table, circular saws mounted thereon, a slide traversing said table, and means within said slide for rotating the wood block from which the prismatic blocks are cut consisting of a plate provided with pins on its under face.

3. In a machine for cutting prismatic blocks in combination, a table, circular saws mounted thereon, a slide traversing said table, a cover within said slide capable of downward movement, and a plate mounted within said cover, so as to be capable of independent rotation, said plate being provided with pins on its under face.

4. In a machine for cutting prismatic blocks in combination, a table, circular saws mounted thereon, a slide traversing said table, a cover having pins thereon for entry within curved slots in the boss of the slide, said slots permitting a downward movement, and then a slight upward movement on turning the cover in one direction, a plate mounted within said cover, so as to be capable of independent rotation, said plate being provided with pins on its under face.

5. In a machine for cutting prismatic blocks in combination, a table, circular saws mounted thereon, a slide traversing said table, means within said slide for rotating the wood block from which the prismatic blocks are cut consisting of a plate provided with pins on its under face, and a perforated disk to carry the extremities of said pins, said disk being capable of rotation but vertically fixed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EMIL WUHRMANN.

Witnesses:

H. A. GIBZ,
A. UBERZEIGER.