

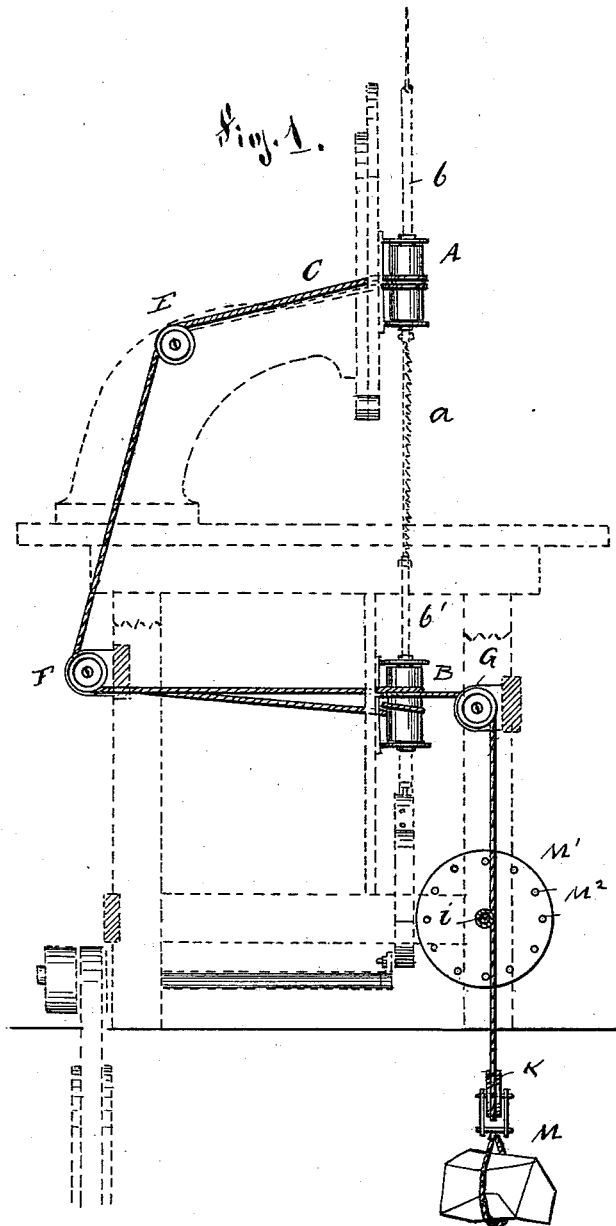
(No Model.)

2 Sheets—Sheet 1.

C. L. TARDENT.
SAWING MACHINE.

No. 420,319.

Patented Jan. 28, 1890.



WITNESSES:

Henry Huber
Weinberg

INVENTOR

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Chas. Louis Tardent
BY *G. P. & R. J. R.*
ATTORNEYS

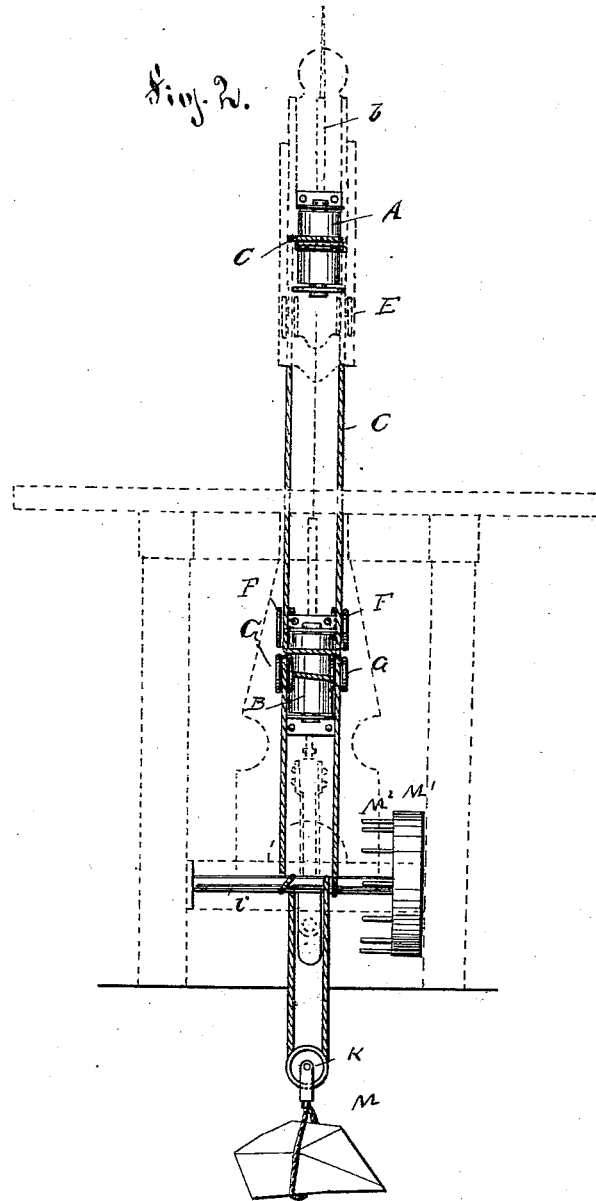
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UNITED STATES PATENT OFFICE.

CHARLES LOUIS TARDENT, OF LAUSANNE, SWITZERLAND.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 420,319, dated January 28, 1890.

Application filed December 5, 1889. Serial No. 332,727. (No model.) Patented in Switzerland February 16, 1889, No. 626; in France July 8, 1889, No. 199,443, and in Belgium October 15, 1889, No. 87,855.

To all whom it may concern:

Be it known that I, CHARLES LOUIS TARDENT, of the city of Lausanne, canton of Vaud, and Republic of Switzerland, a citizen of Switzerland, have invented certain new and useful Improvements in Sawing-Machines, (for which Letters Patent were granted to me in Switzerland, No. 626, dated February 16, 1889; France, No. 199,443, dated July 8, 1889; and Belgium, No. 87,855, dated October 15, 1889,) of which the following is a specification.

This invention relates to improvements in vertically-reciprocating saws; and the object of my invention is to provide an attachment for guiding a saw-blade and turning the same in either direction as necessity may require, thereby greatly facilitating the cutting of wood or metal without necessitating the turning or shifting of wood or metal around the saw, as is frequently necessary.

The invention consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally pointed in the claims.

In the accompanying drawings, Figure 1 is a side view of a saw provided with my improvement, parts being in section and other parts in dotted lines. Fig. 2 is a front view of the same, parts being in section and parts in dotted lines.

Similar letters of reference indicate corresponding parts.

The saw-blade *a* is secured to the bars *b b'*, which are rectangular in cross-section and of which the latter is connected with suitable mechanism for operating—that is, reciprocating—the blade. The bars *b b'* are guided in corresponding axial apertures in two drums *A B*, mounted in suitable brackets on the frame of the machine in such a manner that they can turn axially—that is, they can turn on the axis of the saw. An endless rope *C* is passed around the drum *A* in opposite directions, and is passed over guide-pulleys *E*, and *F* on the frame of the saw, is then passed

around the drum *B* in opposite directions, then over a guide-pulley *G*, then around a shaft *i* in opposite directions and around a pulley *K*, which is suspended from said rope. From said pulley *K* a weight *M*, is suspended by means of a suitable hanger, which weight serves to keep the endless rope taut. A wheel *M'* is secured on the shaft *i* and is provided with laterally-projecting pins *M²* or with other suitable projections to permit of rotating said wheel *M'* by means of the foot.

The operator can turn the wheel *M'* in one direction or the other a greater or less distance by placing his foot on one of the pins, and thereby the motion of the shaft *i* is transmitted by the rope *C* to the drums *A* and *B*, which are turned axially either in one direction or the other a greater or less distance, as circumstances may require, and with them the bars or guides *b b'* and the saw-blade *a* attached thereto will also turn and the saw be thus brought into the most desirable position for the purpose.

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

The combination, with a saw-blade, of two axially-rotative drums, rods secured to the ends of the blade and guided to reciprocate through and turn with said drums, an endless rope passed around both drums in opposite directions, a shaft around which said rope is also passed in opposite directions, a wheel fixed on said shaft and provided with projections, and a weight suspended from said rope to keep it taut, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES LOUIS TARDENT.

Witnesses:

HENRI GRAM,
JEAN BOULENAZ.