O. F. RUSS.

MACHINES FOR MARKING SCALE-BEAMS.

No. 195,654. Patented Sept. 25, 1877.

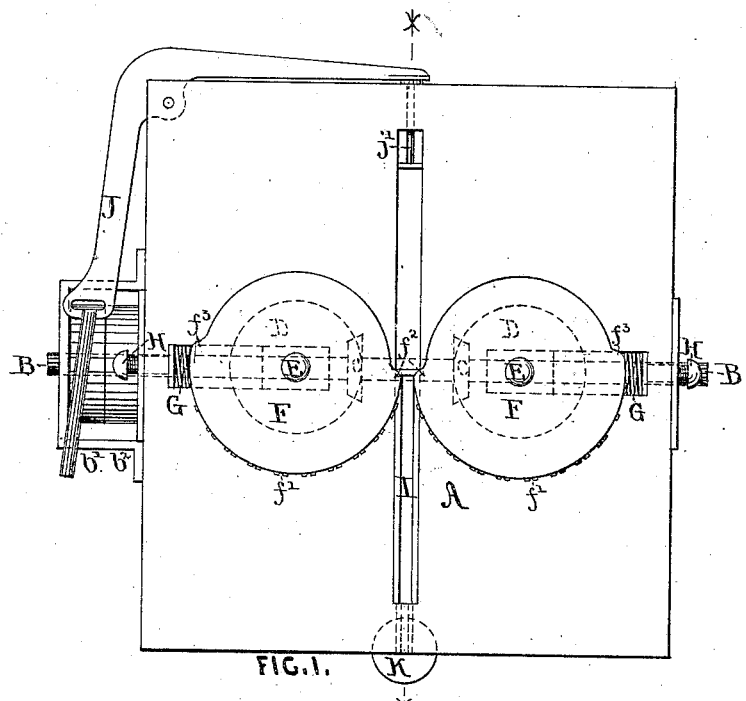

FIG. 1.

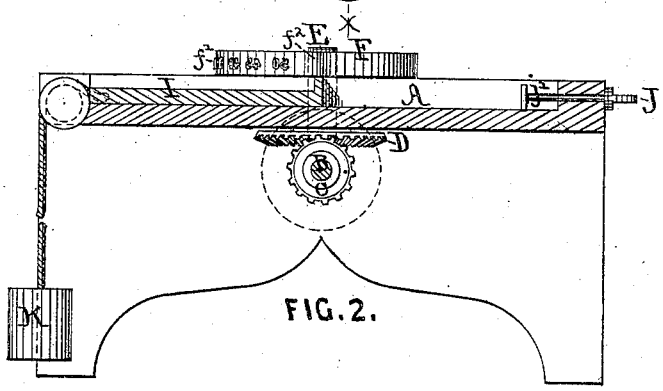

FIG. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

OSCAR F. RUSS, OF ALBANY, NEW YORK.

IMPROVEMENT IN MACHINES FOR MARKING SCALE-BEAMS.

Specification forming part of Letters Patent No. **195,654**, dated September 25, 1877; application filed July 24, 1877.

To all whom it may concern:

Be it known that I, OSCAR F. RUSS, of the city and county of Albany, and State of New York, have invented a new and useful Machine for Marking Scale-Beams, of which the following is a full and exact description, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of my invention, and Fig. 2 a vertical section at the line *x x*.

My invention consists in the mechanism herein shown and described for mechanically marking upon scale-beams the figures or characters used for indicating the weight.

As shown in the drawing, A is the bed-plate of the machine; B, the driving-shaft, provided with a fast pulley, b^1, loose pulley b^2, and the gear-wheels C. These wheels engage with the wheels D, which are secured to the vertical shafts E, revolving in bearings fitted to slide in slotted openings in the bed-plate A.

The impression-wheels F are secured to the upper ends of the shafts E above the top of the bed-plate. They are provided with suitable figures or other characters, f^1, arranged around a portion of their peripheries, and projecting therefrom a sufficient distance to produce the required impression in the surface of the scale-beam. These figures may be made on separate pieces of metal, to be fixed at prescribed distances in suitable grooves or openings around the periphery of the wheels; or they may form integral parts of the wheels.

The face of the periphery of each wheel above and below the figures and the spaces intervening between them is used, in the manner hereinafter set forth, to feed the scale-beams between the impression-wheels to receive the impress of the figures.

To facilitate the introduction and removal of the work, the impression-wheels are reduced in diameter between the points f^2 and f^3, so that they will not bear against the sides of the beams between these points, which are fixed at proper distances from the first and last figures to be imprinted to effect the required feeding of the work.

The bearings for the shafts E are forced toward each other by means of the springs G, to which additional compression, to increase their effect, may be given by the set-screws H.

A grooved slide or carrier, I, moving in suitable guides, is provided for receiving and guiding the work so that it will be properly fed to the impression-wheels.

J is a belt-shifting lever, operated automatically by the slide I, as hereinafter described.

The operation of my invention is as follows: The scale-beam is fixed in proper position in the slide I, and the machine set in motion by shifting the driving-belt, by means of the shifting-lever J, to the fast pulley b^1. The impression-wheels F are revolved in the direction indicated by the arrows in Fig. 1. Their peripheries, commencing with the points f^2, gripe the sides of the beam and feed it along between the two wheels, receiving in its course the impression of each of the projecting figures in turn. The slide I is carried along with the scale-beam as it is forced between the wheels F until the points f^3 are reached, whereupon the end of the slide is brought into contact with the stud j', bearing against one end of the shifting-lever J, whereby the lever is moved to shift the driving-belt to the loose pulley b^2, so as to stop the machine.

As soon as the points f^3 of the impression-wheels are released from contact with the work the slide I and the work held in it are returned to their first position by means of a counter-weight, K, so as to leave the machine in condition for a repetition of the operation.

When one side of the scale-beam only is required to be marked, the figures may be omitted from one of the impression-wheels.

It is manifest that my invention can be readily applied for the purpose of making rules, squares, and other graduated implements, and that it may also be used for ornamenting various kinds of work by impressing suitable designs thereon.

I claim as my invention—

The combination of the impression-wheels F, provided with projecting figures or other characters, with the carrier or slide I and the belt-shifting mechanism, substantially as and for the purpose herein specified.

OSCAR F. RUSS.

Witnesses:

ADDISON LOW,

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