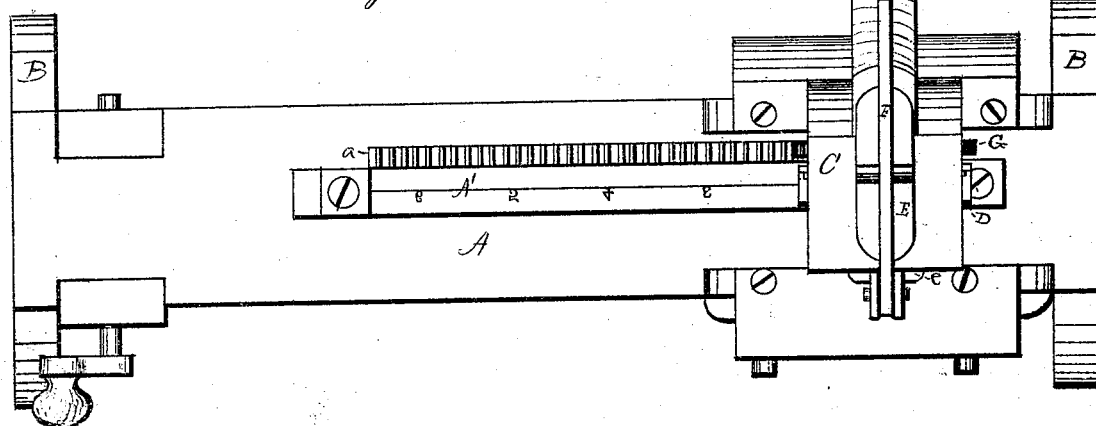


2. Sheets. Sheet 1.

No. 110,623.

Patented Jan. 3. 1871.

Fig. 2.



C. S. Bement,

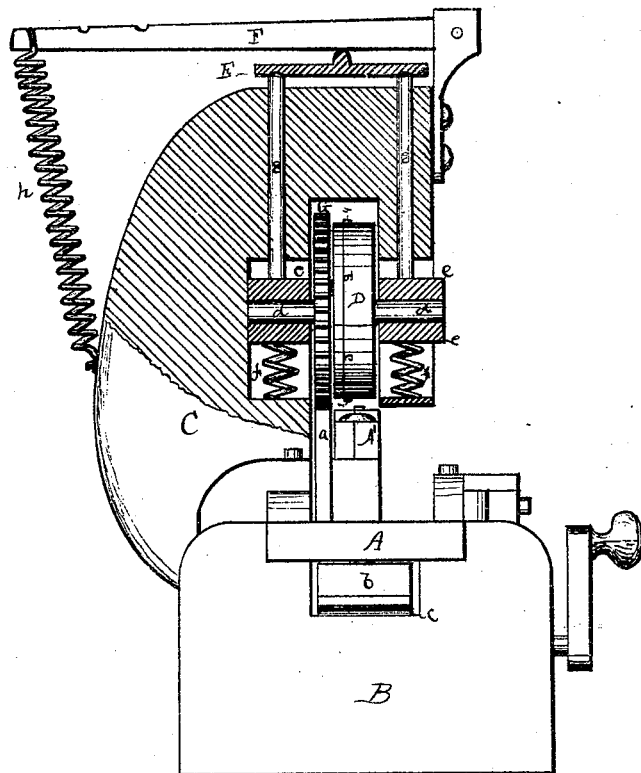
2, Sheets, Sheet 2.

Dividing Engine.

No. 110,623.

Patented Jan. 3, 1871.

Fig. 3.



Witnesses

Inventor.

F. S. Newquford

Charles S. Bement.

C. B. Alderslaw

By James Shepard Atty

United States Patent Office.

CHARLES S. BEMENT, OF SOUTHTON, ASSIGNOR TO HART MANUFACTURING COMPANY, OF KENSINGTON, CONNECTICUT.

Letters Patent No. 110,623, dated January 3, 1871.

IMPROVEMENT IN MACHINES FOR MARKING SQUARES.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES S. BEMENT, of Southington, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement in Machine for Figuring Squares, of which the following is a specification.

My invention consists of an improved machine for figuring squares, arranged as hereinafter described.

In the accompanying drawing—

Figure 1 is a front elevation of my invention;

Figure 2, a top view; and

Figure 3, a side elevation, partly in section, of the same.

A designates a bed, secured to uprights B B or supported in any proper manner.

To the bed A is secured another bed, A', provided with marking dies or figures, 1 2 3, &c., and fastened to the bed A by means of screws.

At one side of the bed A', and secured to the bed A, is a rack, *a*.

C designates a sliding carriage, which is arranged to slide back and forth on the bed A by means of the rack and pinion *b c*.

The carriage C is provided with a marking-roller, D, (which also carries dies or figures 1 2 3, &c.,) mounted on a shaft, *d*, having its bearings in sliding or adjustable boxes *e e*, which are held up by a spring, *f*.

Immediately above each box is a rod or slide, *g*, fitted to freely slide up and down through the frame of the carriage C.

Upon the upper end of each of the slides *g* is mounted a leveler, E, over which is a lever, F, forced downward by a spring, *h*, or a weight.

By the side of the roller D is a pinion, G, which meshes into the rack *a*.

For squares of nearly equal thickness the entire length of the blade, the bed A' is set level or parallel with the

bed A, but, if the squares to be marked are tapering in the direction of their length, one end of the bed A' can be blocked up more than the other, to accommodate said taper and bring the upper side of such tapering blade, when placed upon the bed, parallel to the line of motion of the carriage C.

The operation is as follows:

A square blade is placed in the proper position on the bed A', when, by any suitable power, motion is given to the pinion *b*, which moves the carriage C over the bed A', thus causing, by means of the rack *a* and pinion G, a rotary motion of the roller D, which passes over the square blade, the dies upon the roller imprinting the figures upon one side of the blade, while said roller also presses the blade against the dies in the bed A', and imprints the figures upon the opposite side of the square.

If one edge of the blade is thicker than the other at any part of its length, the leveler E, bearing equally upon both boxes *e e*, will allow the boxes at one end of the shaft *d* to rise more than at the other, whereby a rocking motion is imparted to the roller D, which will thus adjust itself to the inequalities of the work being marked.

My invention is designed as an improvement on the patent to H. K. Jones, June 30, 1865.

I claim as my invention—

The combination of the marking-roller D, shaft *d*, boxes *e e*, slides *g g*, leveler E, weighted or spring lever F, and the bed A' or its equivalent, the whole constructed and operating together substantially as described.

CHARLES S. BEMENT.

Witnesses:

J. T. HART,

JAMES SHEPARD.