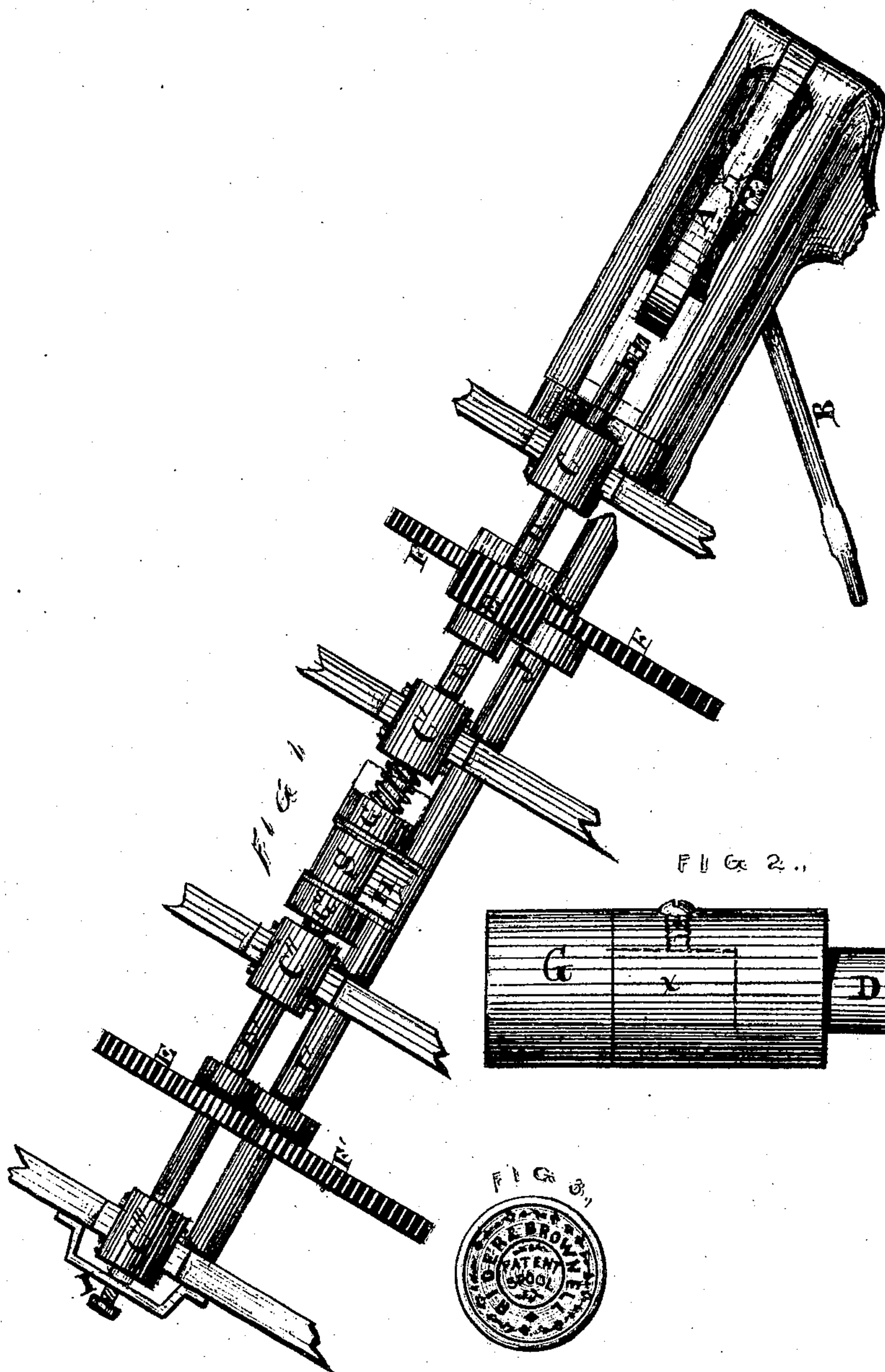


Rider & Brownell,

Spool Machine.

No. 105250.

Patented July 12. 1870.



WITNESSES..

INVENTORS

Justus Lester
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UNITED STATES PATENT OFFICE.

JOHN F. C. RIDER, OF SOUTH NEW MARKET, NEW HAMPSHIRE, AND
EMERSON P. BROWNELL, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SPOOL-MACHINES.

Specification forming part of Letters Patent No. 105,250, dated July 12, 1870.

To all whom it may concern:

Be it known that we, JOHN F. C. RIDER, of South New Market, in the county of Rockingham and State of New Hampshire, and EMERSON P. BROWNELL, of Providence, Rhode Island, have invented certain Improvements in Spool-Machines, of which the following is a specification:

Our invention consists in combining with the cutting mechanism a powerful compressing device, and suitable dies for embossing and ornamenting the heads of the spools.

In the accompanying drawings, Figure 1 represents a view of the machine when looking down upon the same.

A is a toggle-joint connected with the movable spindle. B is a lever working the toggle-joint; C C' C'' C''', the rests upon which work the spindles; D D', the spindles; E and E', the small cog-wheels attached to the spindles D and D'; F and F', the lower cog-wheels, which are attached to the spindle of the pulley. G and G' are the embossing-dies, which are attached to the inner ends of the spindles D and D'. The faces of these dies are engraved with any desirable figures or designs, and, when the dies are placed in forcible contact with the spool-heads, they reproduce the same design by embossing it thereon; S, the spool-stock; H, the tool-post; I, a screw which adjusts the fixed spindle D'; J, the lower spindle.

Fig. 2, the die G, a socket, *x*, and screw *y*, for holding the die to the spindle; Fig. 3, a finished spool-head.

Power is applied to a pulley attached to the lower or under spindle, to which are fastened the larger gears, which work into the small

gears, both so adjusted as to carry the two spindles D and D' with an equal speed. The spindle D' may be called fixed—that is, it is adjusted by the screw I. The die G' is attached thereto; and the spool-blank, being held against said die G', power is applied to the lever B, which, working the toggle-joint A, throws the spindle D, which is movable, with its die G, forward and against the spool-blank S, with a power sufficient to stamp upon the heads of the spool (one or both of them) any device or trade-mark, and, holding the stock firmly in place, the carriage, with the tool-post, is moved in the usual manner, and the tools, brought into contact with the stock, cut away the wood from the revolving stock until the desired shape is attained, and the finished spool is loosened from its place by the reversed action of the lever B, which, by means of the toggle-joint, draws the spindle D and its die G away from the spool.

The finished spool being removed, another blank is placed between the dies, as before, and the same operation of fashioning and stamping the spool is repeated.

What we claim as our invention, and desire to secure by Letters Patent, is—

The engraved embossing-dies G and G' and compression mechanism, substantially as herein described, in combination with the sliding spindle and cutting device of a spool-machine, as and for the purposes specified.

JOHN F. C. RIDER.

EMERSON P. BROWNELL.

Witnesses:

J. ERASTUS LESTER,
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