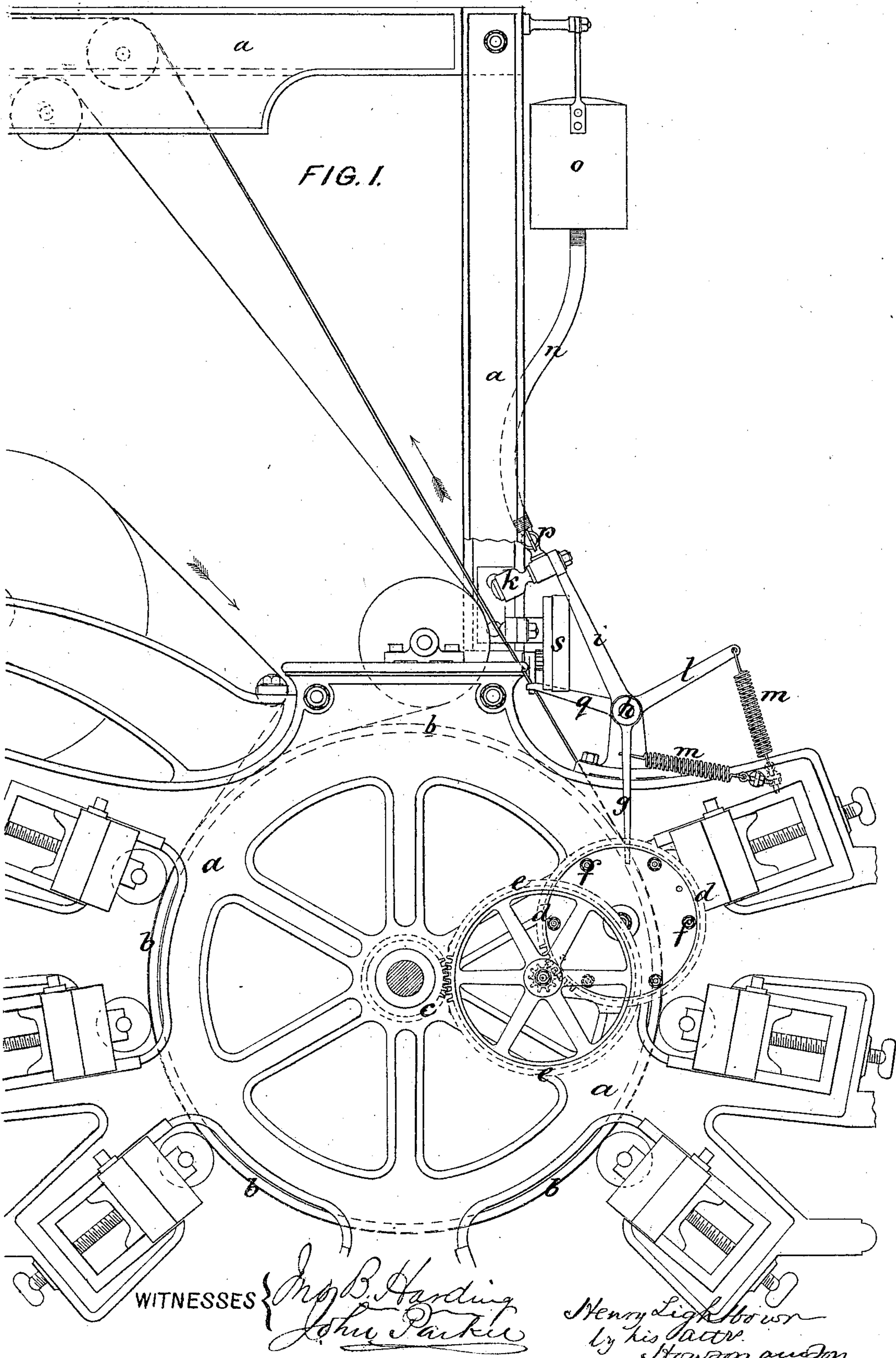
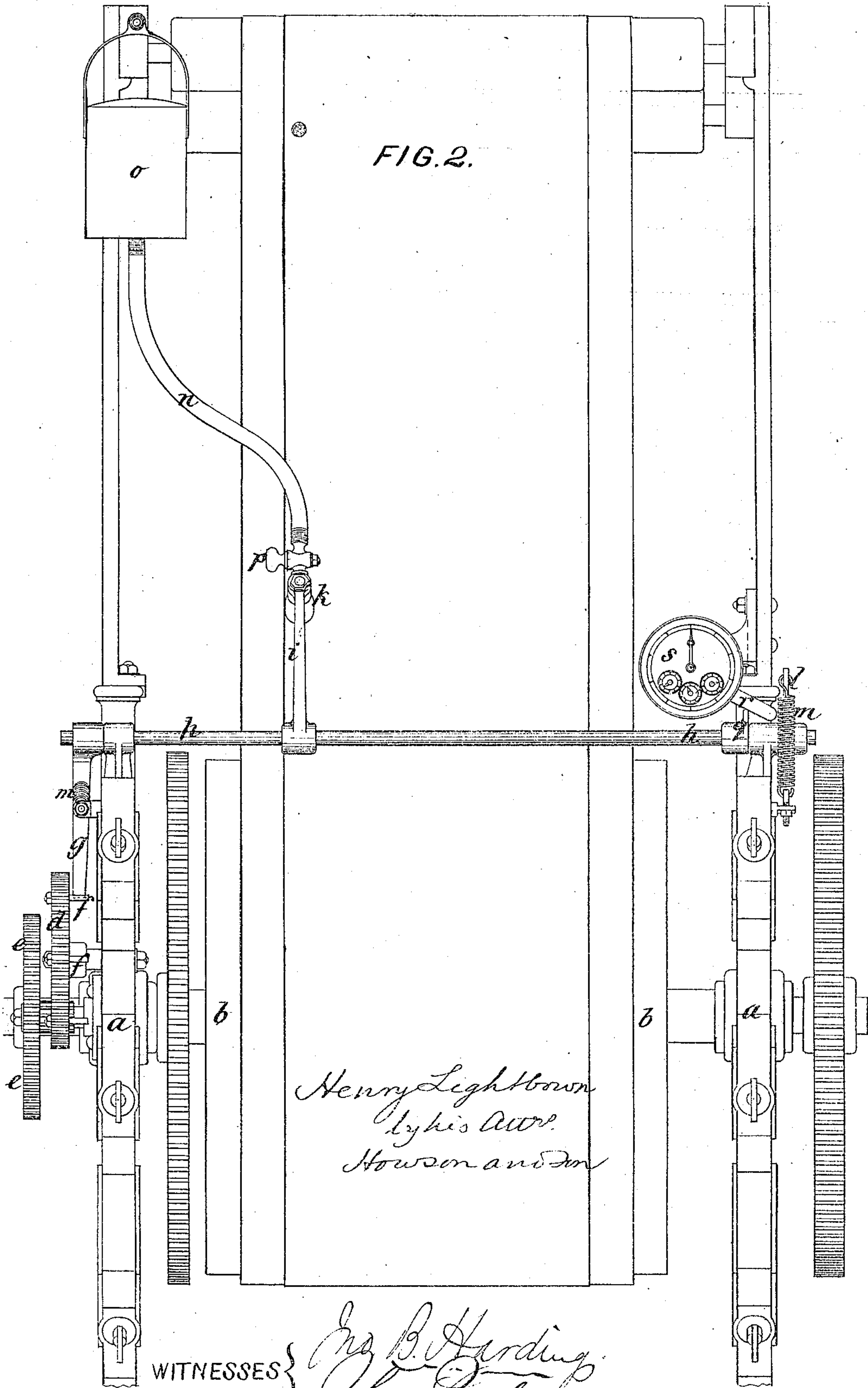


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Improvement in Machines for Marking Paper-Hangings.
No. 129,573.
Patented July 16, 1872.



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UNITED STATES PATENT OFFICE.

HENRY LIGHTBOWN, OF PENDLETON, GREAT BRITAIN.

IMPROVEMENT IN MACHINES FOR MARKING PAPER-HANGINGS.

Specification forming part of Letters Patent No. 129,573, dated July 16, 1872.

SPECIFICATION.

I, HENRY LIGHTBOWN, of Pendleton, in the county of Lancaster, Kingdom of Great Britain and Ireland, have invented Improvements in Machinery and Apparatus for Measuring and Marking Lengths of Paper-Hangings, of which the following is a specification:

My invention consists of mechanism, fully described hereafter, whereby long strips of wall-paper, or paper to be made into wall-paper, is automatically measured and marked off into sections of suitable length to form the usual "rolls," the mechanism being capable of adjustment so as to divide the strip into sections of any desired length.

Figure 1 in the annexed drawing is a side elevation, and Fig. 2 a back view, of my improved apparatus.

a a is part of the frame of a machine for printing paper-hangings, and *b b* is the main drum or bowl of the machine. Upon the axle of this main drum I key a spur-pinion, *c c*, driving a spur-wheel, *d d*, by means of intermediate wheels *e e*. The face of this spur-wheel *d d* carries a series of projecting pins, *f f*, which act at intervals upon a lever, *g g*, keyed upon one end of the bar or shaft *h h*, extending across the machine. At or near the center is a second lever, *i i*, carrying an inking-pad, *k k*; and at the other end of the bar or shaft is a third lever, *l l*. The levers *g g* and *l l* are provided with helical springs *m m*, which, counteracting each other, hold the pad *k k* in the position shown in Fig. 1, excepting at the time when the lever *g g* is acted upon by one of the pins *f f* on the wheel *d d*. The inking-pad is supplied with ink by means of a flexible tube *n n*, connecting it to a can, *o o*, containing the ink or marking-fluid, and provided with a regulating-tap, *p p*.

The action of the apparatus is as follows: Upon every sixth of a revolution, or at the completion of every divisional section of the

spur-wheel *d d*, one of the projecting pins *f f* thereon will come into contact with the lower lever *g g*, pressing it upward and subjecting the spring *m* thereto attached to considerable tension, which tension is the means of sending the inking-pad *k k* forward upon the paper passing through the machine the moment the lever *g* is liberated from the action of the pin as it slides away beyond it, thus stamping and measuring the length of every "piece" as it issues over the main drum or bowl *b b* in a continuous strip. The number of pieces is registered by an ordinary registering apparatus worked by a lever, *g*, fixed on the cross-bar *h h*.

It will be seen that the marking arm or lever, instead of being operated by pins on the drum *b*, as in machines for cutting strips of paper into sheets, is operated through the medium of a disk driven at a reduced speed from the drum-shaft; the lengths of the sections measured off may, therefore, be greater or even less than the circumference of the drum, and may be determined at pleasure by adjusting the pins *f*, the measurements being accurate and uniform, and the marks legible, permanent, and invariably at the proper points.

Claims.

1. The combination of the drum *b*, wheel *d*, driven at a reduced speed from the drum-shaft, pins *f*, marking-lever *g i*, and indicating devices, all operating as set forth.

2. The combination, with the marking device, of an ink-reservoir, *o*, and connecting flexible tube *n*.

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

HENRY LIGHTBOWN.

Witnesses:

GEORGE DAVIES,
JNO. S. HUGHES.