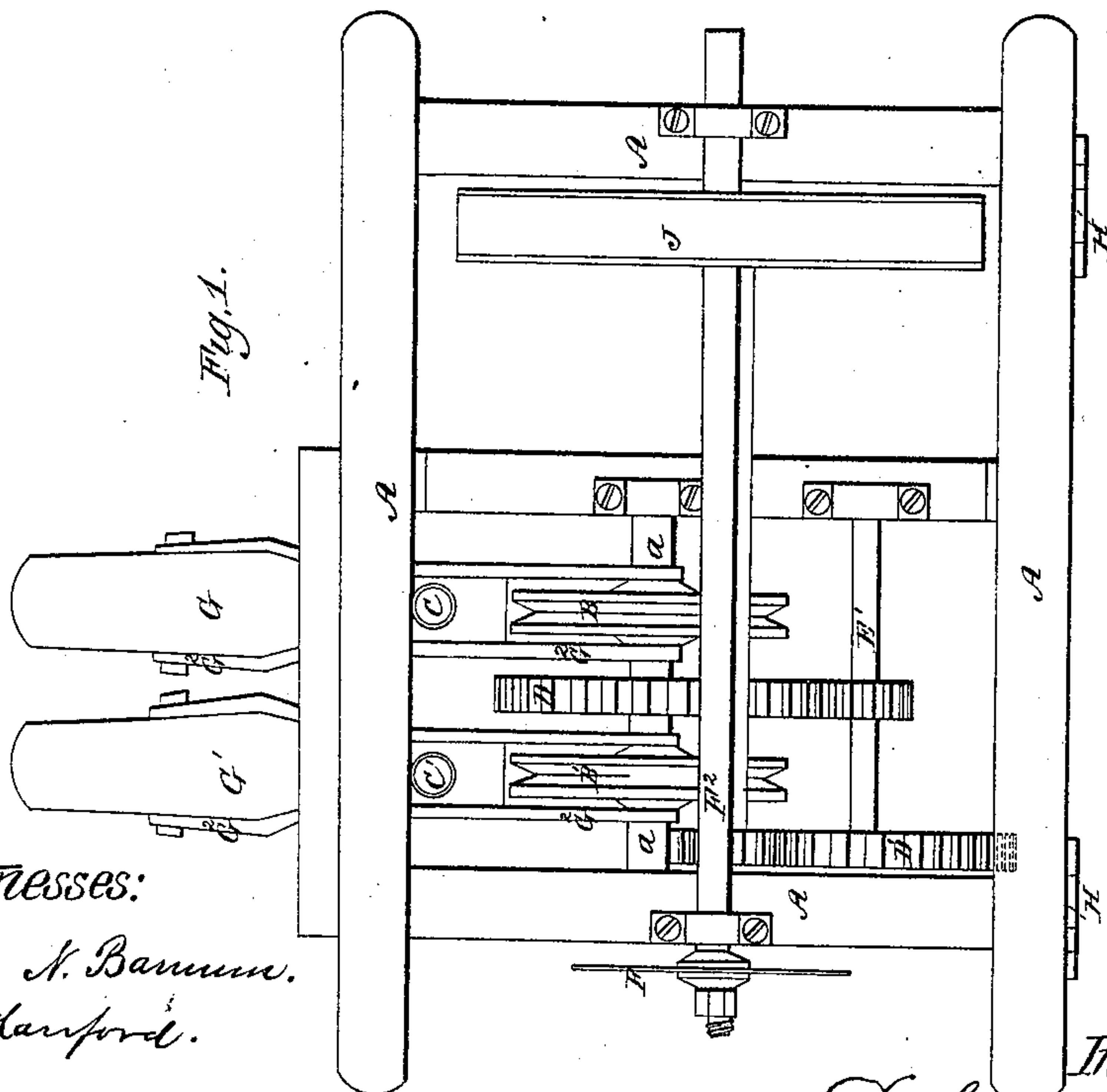
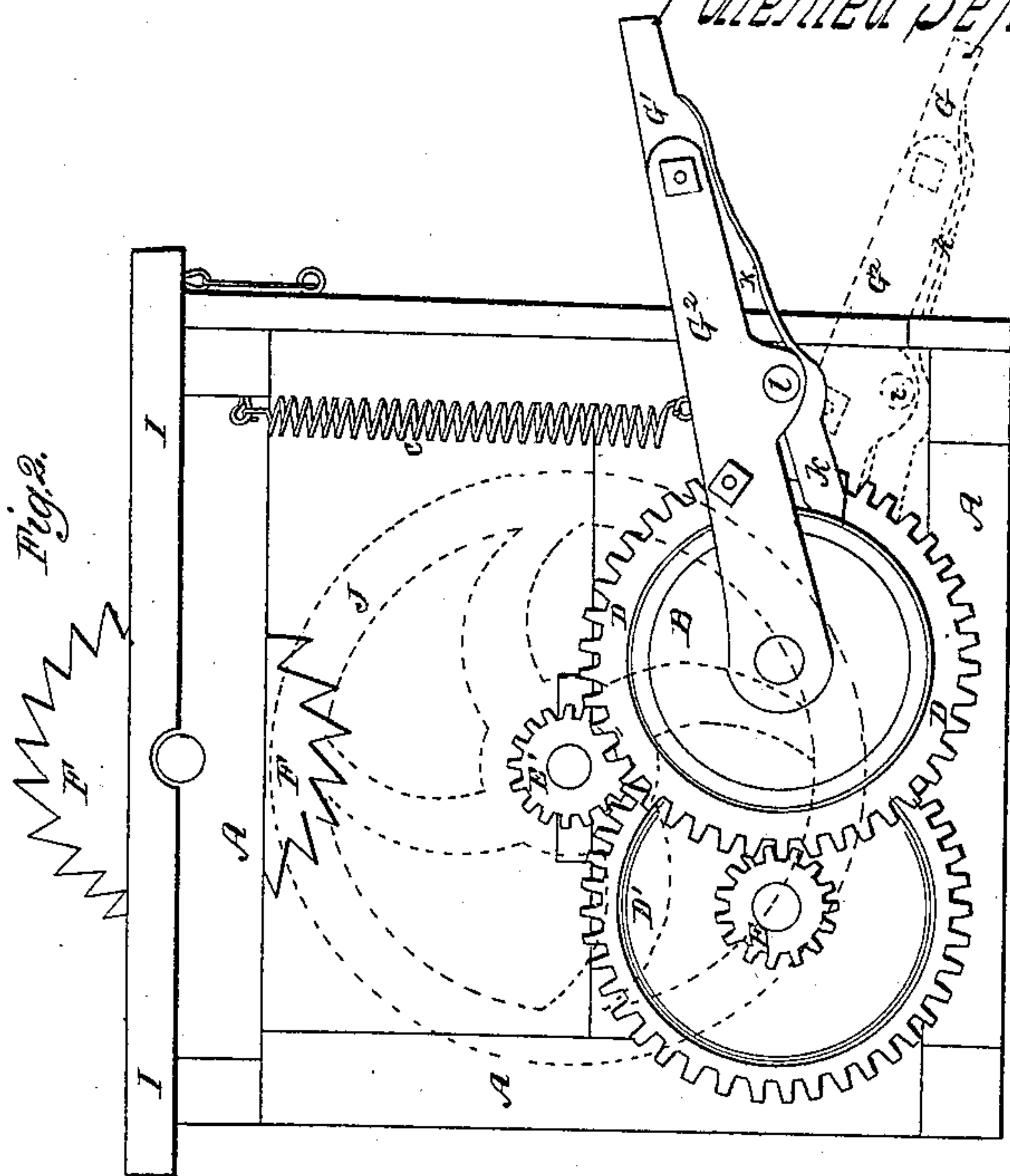


D. Dursey,
Converting Motion.

N^o 25,361.

Patented Sep. 6, 1859.



Witnesses:
John N. Bannum.
J. E. Harford.

Inventor:
Delectus Dursey.

UNITED STATES PATENT OFFICE.

DELECTUS DURFEY, OF FORT SENECA, ASSIGNOR TO HIMSELF, L. A. LYON,
AND H. P. TYLER, OF CLARKSFIELD, OHIO.

IMPROVEMENT IN THE MODE OF APPLYING POWER TO MACHINERY.

Specification forming part of Letters Patent No. **25,361**, dated September 6, 1859.

To all whom it may concern:

Be it known that I, DELECTUS DURFEY, of Fort Seneca, county of Seneca, and State of Ohio, have invented a new and Improved Mode of Applying Power to Machinery; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a plan view. Fig. 2 is a sectional side elevation.

The nature of my invention consists in the manner of applying power to machinery by the groove-wheels, levers, and springs, as hereinafter described.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

In the construction of my machine, in Fig. 1, where the machinery is applied to driving a circular saw, A is the frame; B, the grooved driving-wheels; C, the springs to raise the treadle-levers; D, large gear-wheel on same shaft with wheels B; E, small gear-wheel on shaft E' for increasing the motion; D', the large gear-wheel on shaft E', gearing into gear-wheel F' on shaft F², on which is hung the band-wheel I; F, the saw; G, the treadle-levers; G², arms hanging loosely on the shaft *a* and extending out to receive the treadle-arms which are bolted firmly between them; H, the hinges of the lid.

In Fig. 2 the same letters designate like parts as in Fig. 1. K is the spring-brace operating in the grooved wheels B; J, the cover or top platform, and *l* the fulcrum-bolts of spring-braces K.

In the operation of my invention it will be seen that the spring-braces K, being attached to fulcrum *l* on treadles *g* and hung on the shaft *a*, are suspended by springs C. When thus arranged, the V-shaped ends of the braces K fit into the V-grooves on the wheels B. When not in use, the treadles are drawn up by the coiled springs C.

To operate, it is necessary for a man to take his position on the treadles *g*, with a foot on

each, and then to stand with one foot on one of the treadles. This weight will cause the end of the brace to catch into the groove, which will revolve the wheel. Then by changing the pressure of his weight to the other foot the other wheel is operated in the same way, and thus before the impulse first given is expended the other wheel is operated on in like manner, and by thus continuing to throw his weight alternately on the treadles *g* a constant motion is given to the machine. It will be further seen that by means of my invention the whole weight of the man is at all times on the machine, and at no point is any of the weight lost. No effort of the muscles in pressure is needed. He only has to raise his foot and change the weight of his body alternately from one foot to the other, thus producing a constant power on the machine. By this invention a faster or slower motion can be given to the saw or other machinery to which it may be applied. If a slow motion be required, let the power be applied at the extremity of the levers, and if a quicker motion be required then let power be applied clear up to the machinery, and it is obtained, and it will be found that in this arrangement one man by the use of his whole weight on the machine is equal at least to the power of three men as ordinarily applied to a treadle of ordinary construction.

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

1. The shaped groove in driving-wheel B, in combination with friction spring-brace K, fitting into the same, operating as described, and for the purposes set forth.

2. The combination of the treadle-levers *g*, arms *g*², and spring C with the grooved wheel B and spring-braces K, operating as described, and for the purposes set forth.

DELECTUS DURFEY.

Witnesses:

JOHN N. BARNUM,
J. E. HANFORD.