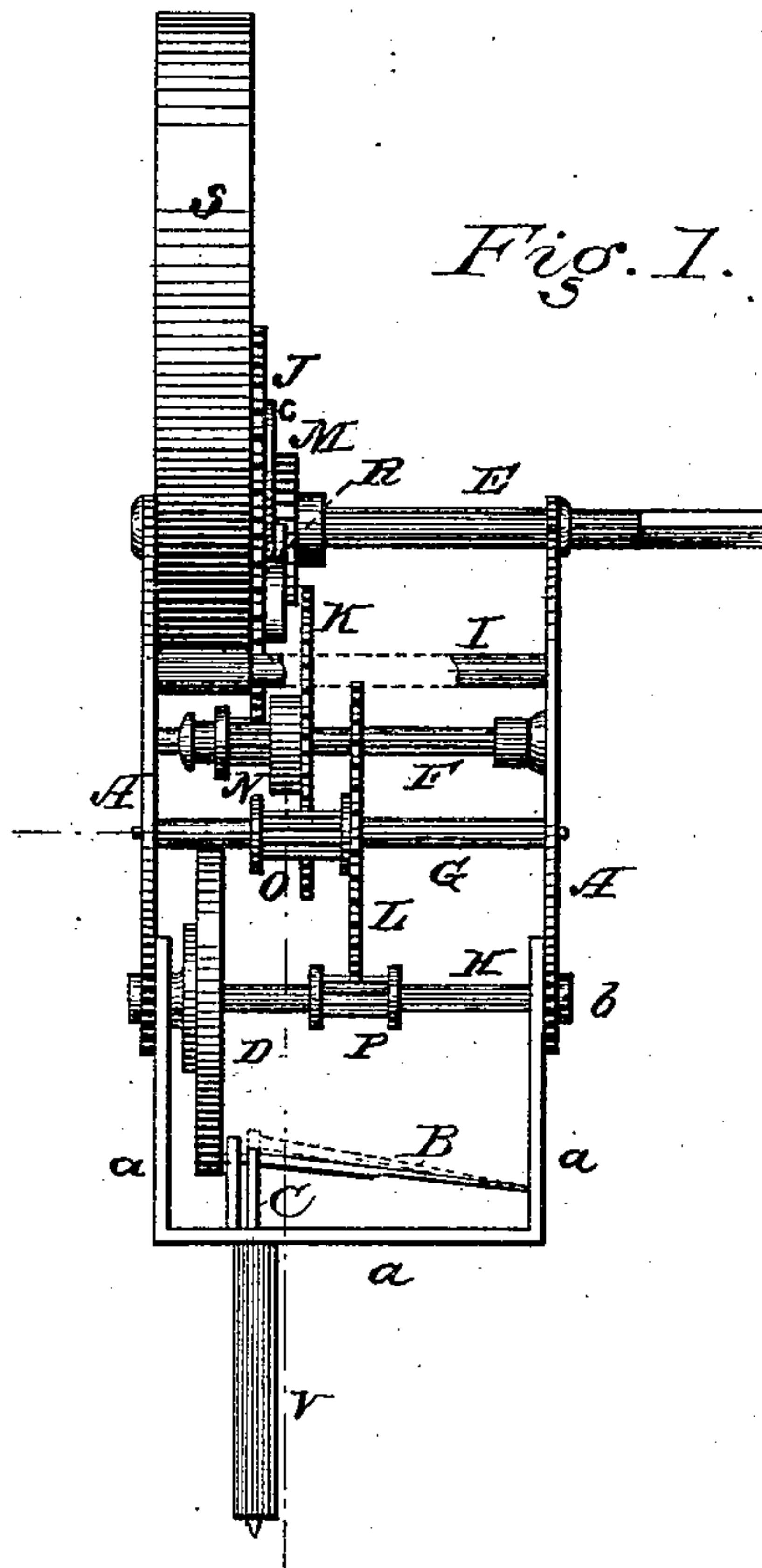


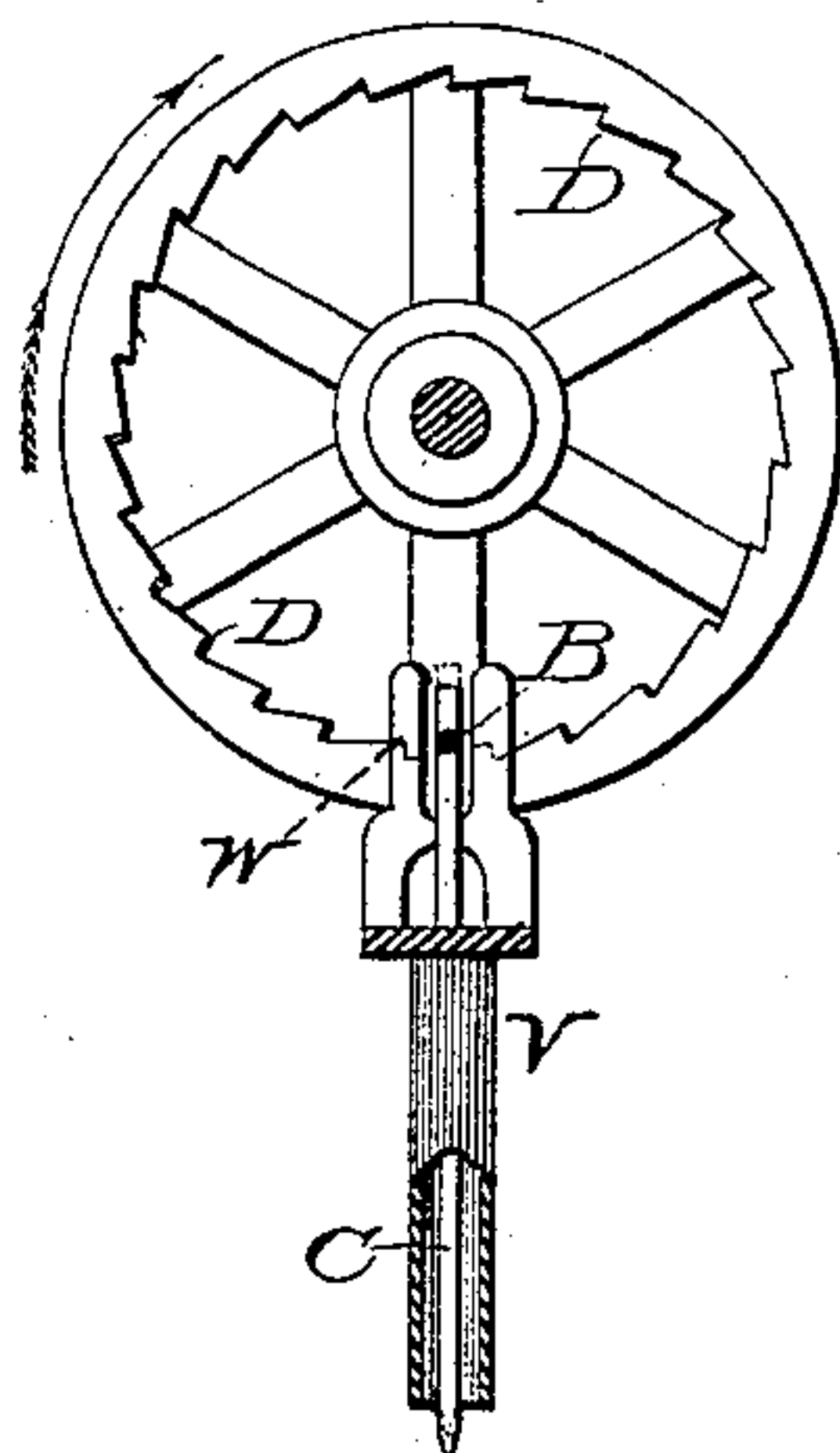
J. TRAINER.  
PERFORATING PEN.

No. 246,246.

Patented Aug. 23, 1881.



*Fig. 2.*



Witnesses:

John D. Seilerling  
Andrew N. Armstrong

Inventor:

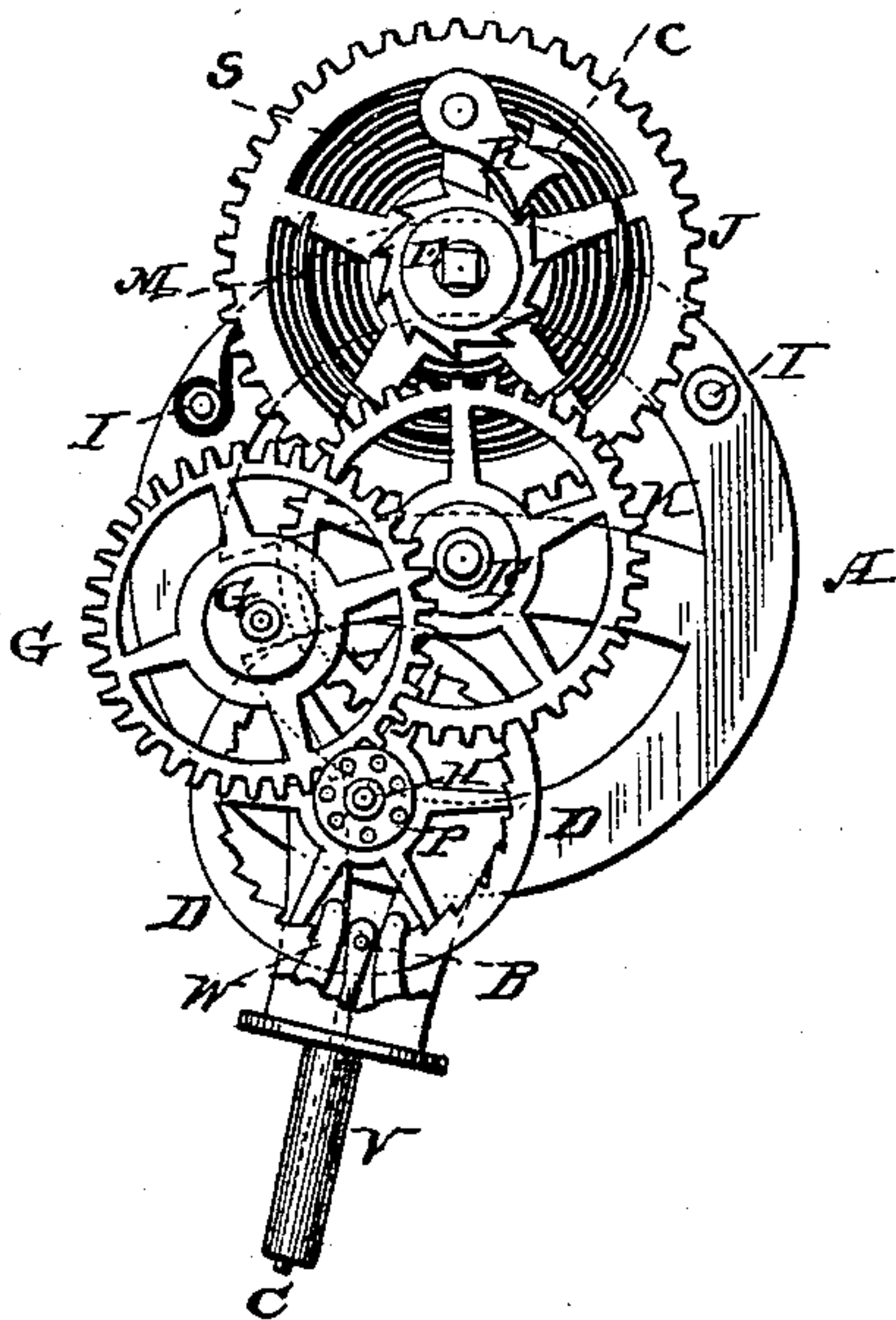
John Trainer

J. TRAINER.  
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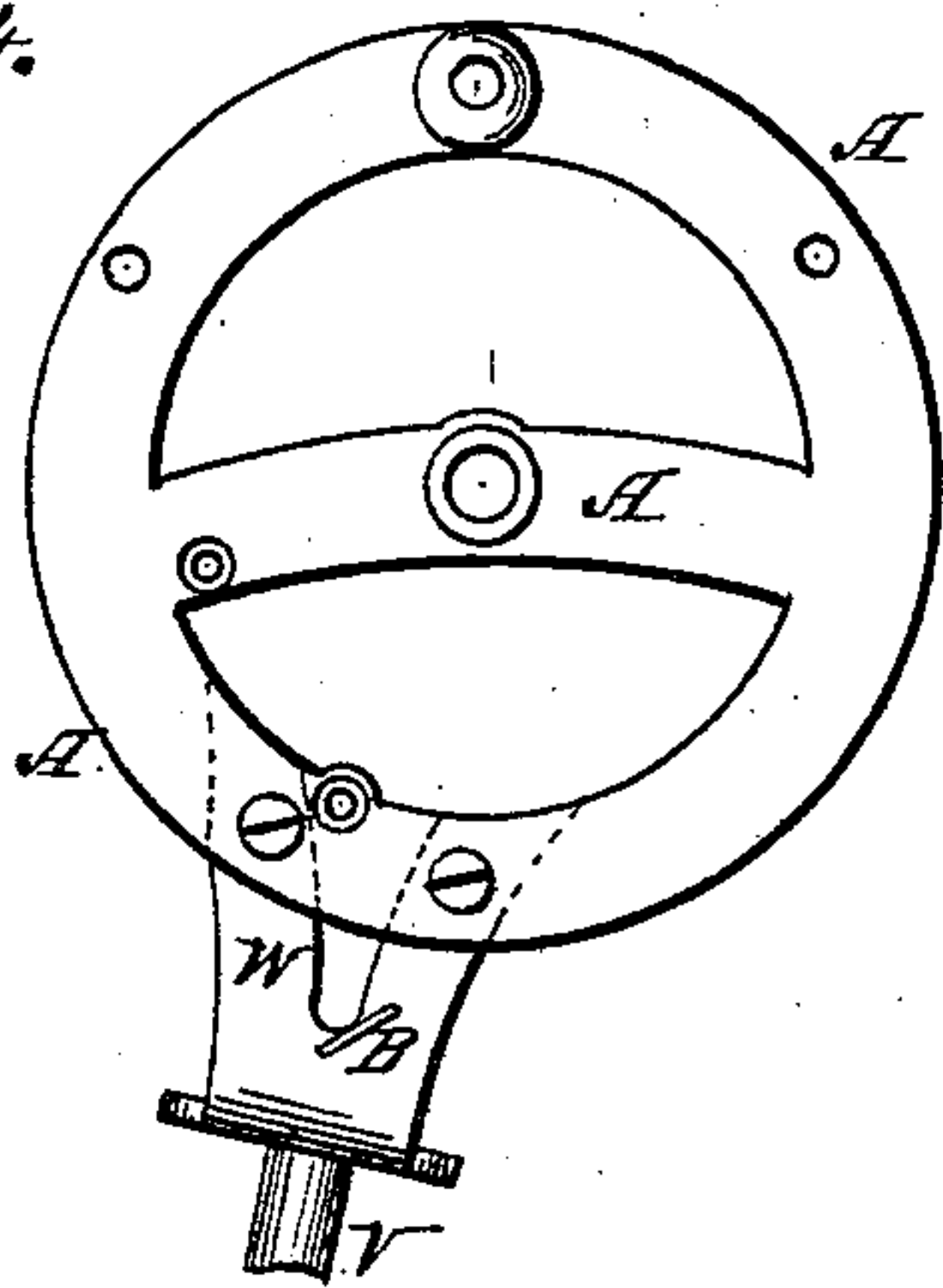
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*Fig. 3.*



*Fig. 4.*



*Witnesses:*  
*Fred. G. Dietrich*  
*P. C. Dietrich*

*Inventor:*  
*John Trainer*  
*By Daniel Breed Atty.*

# UNITED STATES PATENT OFFICE.

JOHN TRAINER, OF BLUE MOUND, ILLINOIS.

## PERFORATING-PEN.

SPECIFICATION forming part of Letters Patent No. 246,246, dated August 23, 1881.

Application filed August 25, 1879.

*To all whom it may concern:*

Be it known that I, JOHN TRAINER, of Blue Mound, Macon county, and State of Illinois, have invented a new and useful Improvement in Machines for Operating Stencil-Pens, which will be fully understood by the following description and claim.

In the accompanying drawings, Figure 1 is a side view of my improved machine. Fig. 2 is a detached view of the pen, ratchet-wheel, and spring. Fig. 3 is a front view of the machine. Fig. 4 is a side view of the frame.

The frame of my machine consists of the side plates, A A, connected by bolts I I, and a U-shaped plate, a, connected with said plates A A by four screw-bolts, b, Fig. 4. The U-plate has a tube, V, in which the pen C works, and a slotted guide, W, to prevent the spring B from being swung to one side by the action of the ratchet-wheel D in operating the pen.

Upon the frame A are arranged four horizontal shafts or axles, E, F, G, and H. The main axle, E, is provided with a coiled spring, S, one end of which is attached to said axle, and the other end is attached to one of the cross-bolts I of the frame. This axle also carries a gear-wheel, J, and ratchet-pinion M, having a pawl or dog, R, held in the usual manner by a spring, c. By a key or crank the axle E is turned and the coiled spring wound up in order to give motion to the machine, as will be soon explained. The gear-wheel J engages with a pinion, N, and thus gives motion to the central axle, F, and its gear-wheel K,

as shown in Fig. 1. The gear-wheel K in turn engages with pinion O on the third axle G, and thus transmits motion to said axle and its gear-wheel L, and the gear-wheel L engages with pinion P on the axle H, which carries the internal ratchet-wheel, D, to move the pen. Thus my machine employs four axles, three gear-wheels, three pinions, and two ratchet-wheels for operating the perforating pen. The pen is attached to and carried by a plate-spring, B, Fig. 1, which drives the pen downward. The end of this spring projects into and works upon the internal ratchet of wheel D. As the ratchet-wheel revolves each tooth of the ratchet raises the spring and pen, which makes a stroke at each notch in the ratchet, thus vastly multiplying the strokes of the pen, already made numerous and rapid by the multiplied gearing above described.

Having thus described my invention, what I claim is—

In a machine for operating a perforating-pen, the combination, with the ratchet-wheel D and operating mechanism, and the U-shaped plate having pen-tube V and the pen, of the intermediate slotted guide, W, and the plate-spring B, the several parts constructed and relatively arranged to operate substantially in the manner herein shown and described.

JOHN TRAINER.

Witnesses:

JOHN D. SEILERLING,  
ANDREW N. ARMSTRONG.