

(No Model.)

J. C. SPRING.

MACHINE FOR BENDING GAS PIPE, &c.

No. 269,131.

Patented Dec. 12, 1882.

Fig. 1.

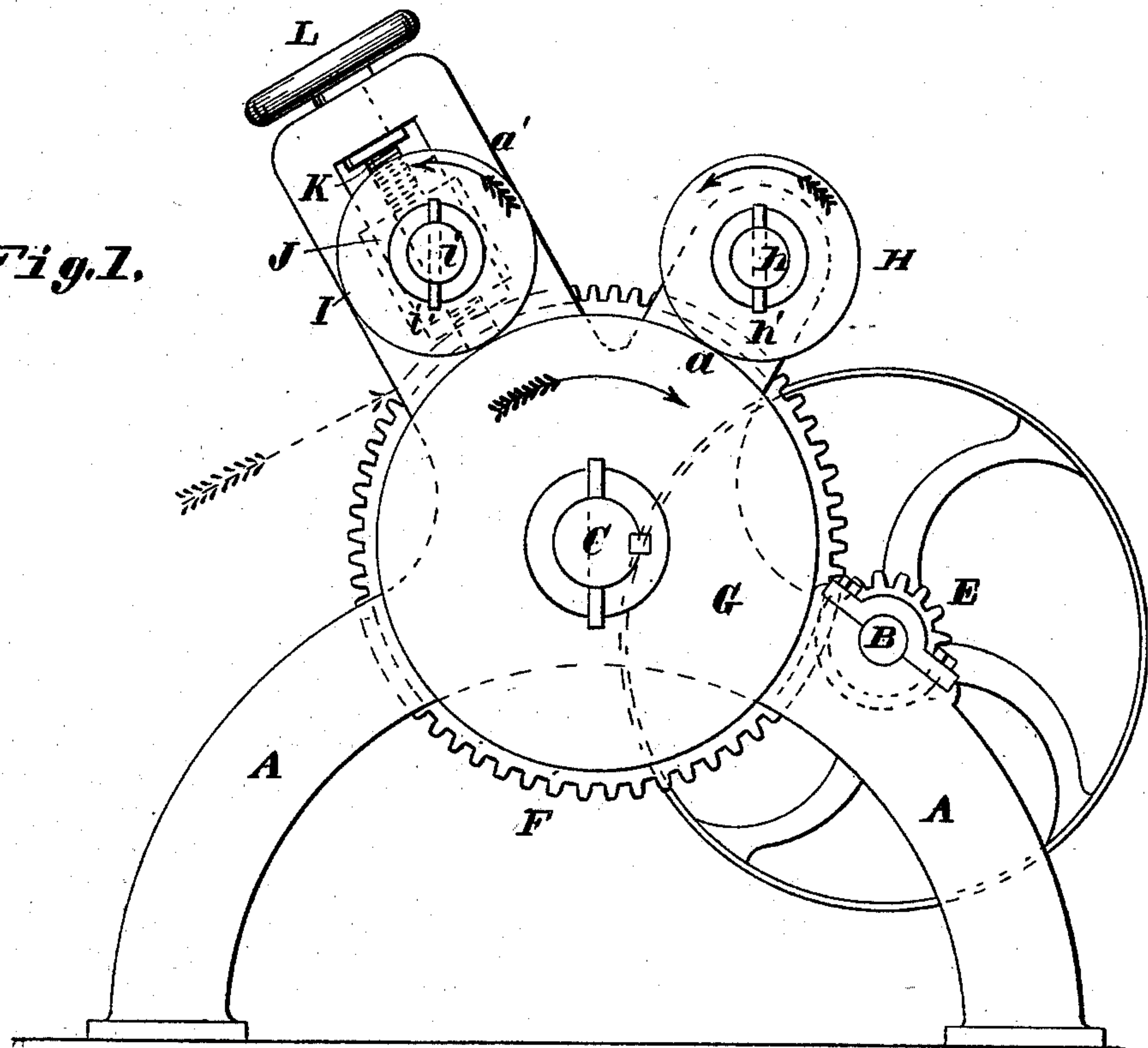


Fig. 2.

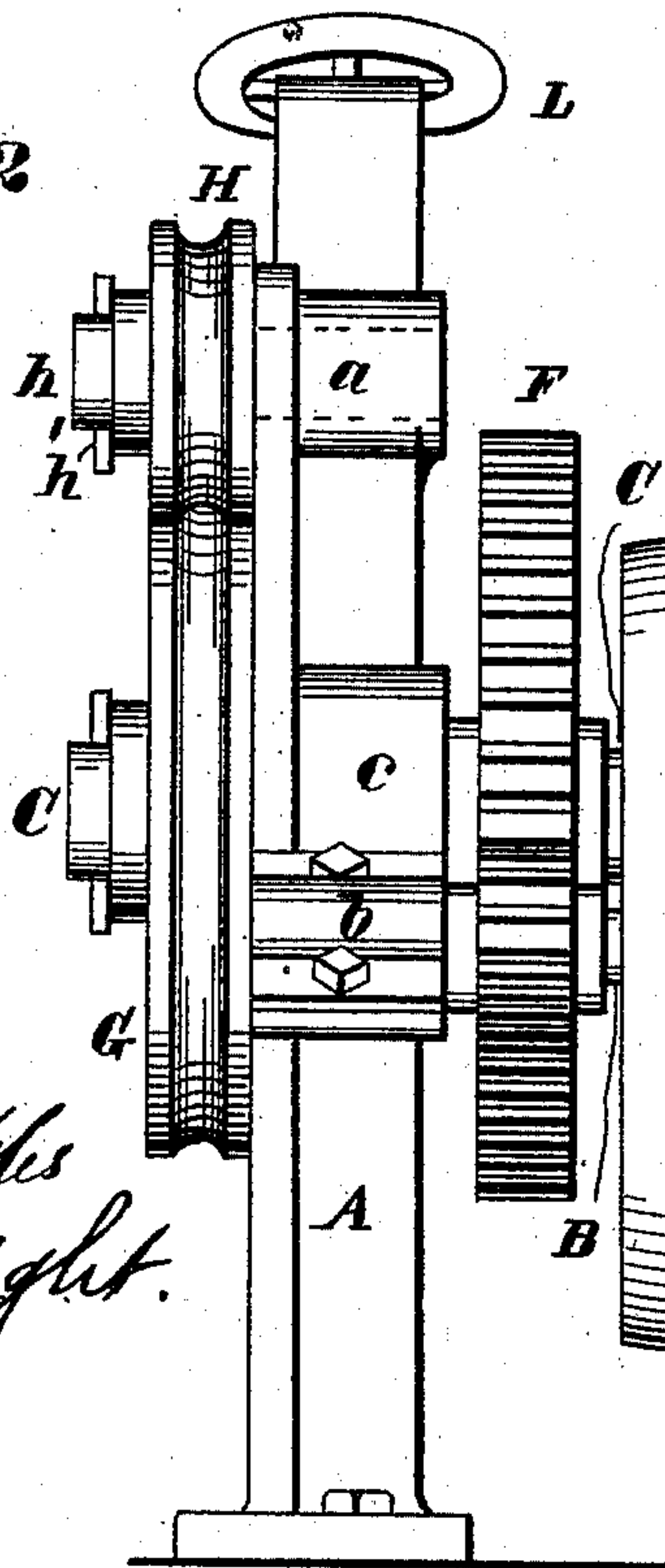
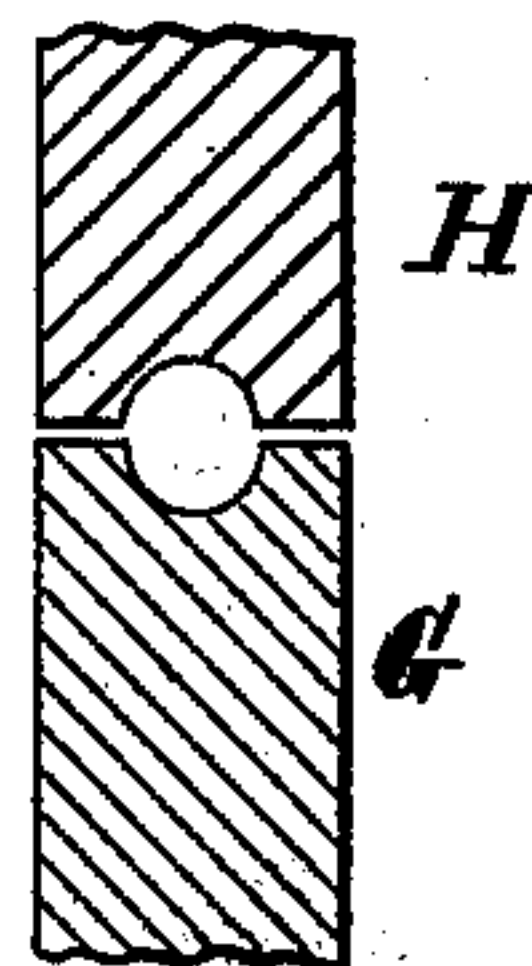


Fig. 3.



Attest.
Charles Pickles
Geo. H. Knight.

Inventor
Josiah C. Spring
By
Knight Bros.
Attys.

UNITED STATES PATENT OFFICE.

JOSIAH C. SPRING, OF ST. LOUIS, MISSOURI.

MACHINE FOR BENDING GAS-PIPE, &c.

SPECIFICATION forming part of Letters Patent No. 269,131, dated December 12, 1882.

Application filed February 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH C. SPRING, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Pipe-Bending Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a machine for bending gas-pipe, &c.; and it consists in the construction of the frame for supporting the three bending-rollers, in combination with the rollers themselves and their arrangement, as hereinafter set forth.

In the drawings, Figure 1 is a side elevation. Fig. 2 is an end view. Fig. 3 is a detail section of two of the rollers.

A represents the frame, supporting in suitable boxes, *b c*, shafts B and C. The shaft B carries a driving-pulley, D, and loose pulley D', and also a pinion, E, which engages with and drives a cog-wheel, F, on the shaft C. On one end of the shaft C is rigidly secured a grooved roller, G, above which are supported smaller but similarly-grooved rollers H and I on arbors *h* and *i*. The rollers H and I are loose upon their arbors and are held thereon by pins *h' i'*. The arbor *h* is supported on a projection, *a*, of the frame, and that, *i*, on a slid-

ing block, J, working in an opening of a projection, *a'*, of the frame. Thus the roller I can be adjusted relative to rollers G and H, to give more or less bend to the pipe.

I adjust the roller I by a screw-rod, K, supported and turning in the top of the projection *a'* and passing down through a screw-threaded hole in the block J. The rod has a hand-wheel, L, on its upper end, by which it is turned to adjust the roller. The direction in which the rollers turn is shown by arrows in full lines, and the direction in which the pipe is passed through the machine is shown by a dotted arrow.

It will be seen that the rollers can be easily removed and others with larger or smaller grooves be substituted, so that a pipe of any size can be bent without being mashed or split.

I claim as my invention—

The frame A, having projections *a a'*, shafts B C, pulley D, pinion E, wheel F, grooved rollers G H I, arbors *h i*, adjustable block J, screw-rod K, and hand-wheel L, all arranged substantially as and for the purpose set forth.

JOSIAH C. SPRING.

In presence of—

GEO. H. KNIGHT,
AUGUSTE WEBER.