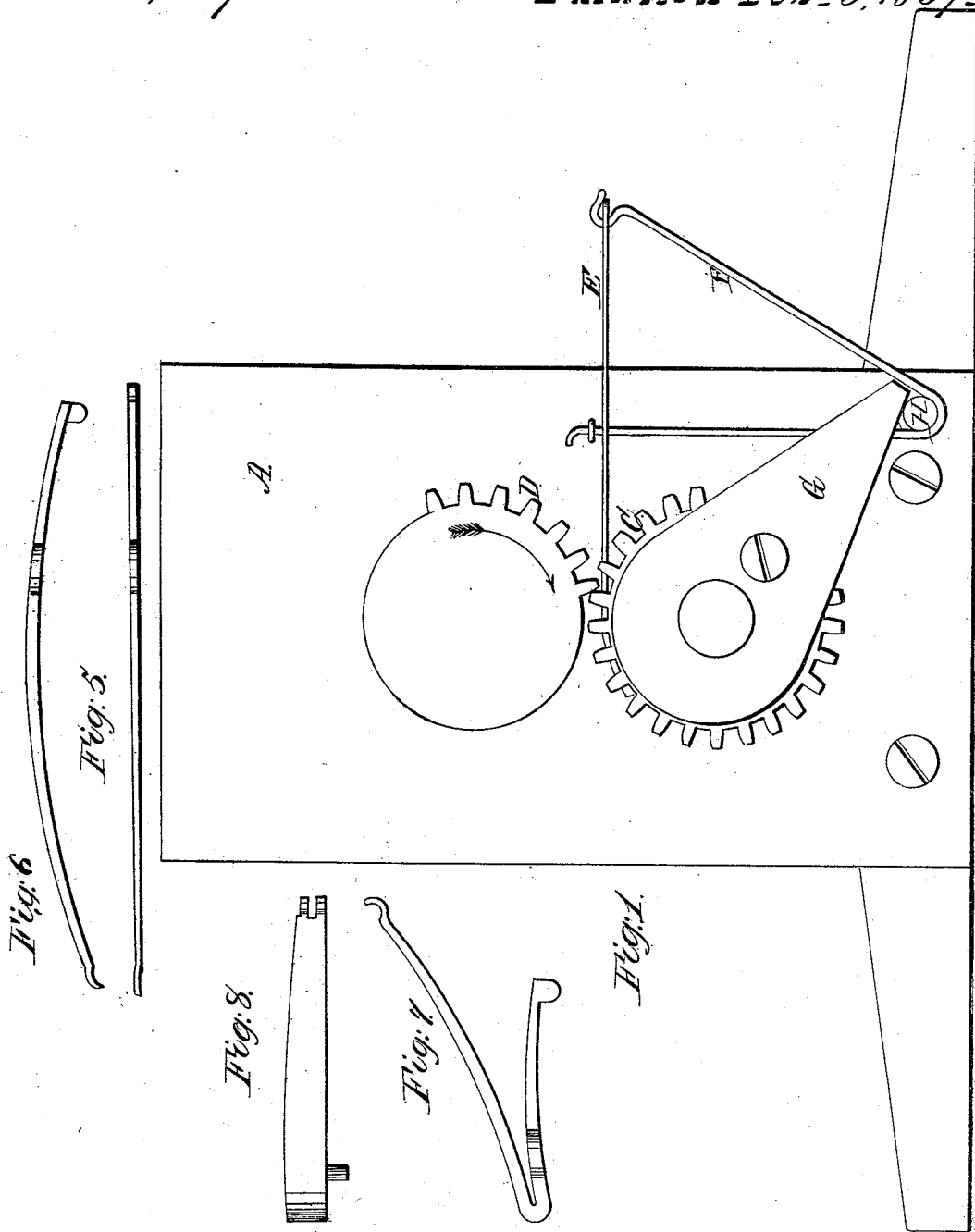


G. P. Foster,

Making Gun-Lock Springs,

N^o 16,537.

Patented Feb. 3, 1857.



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Fig. 3.

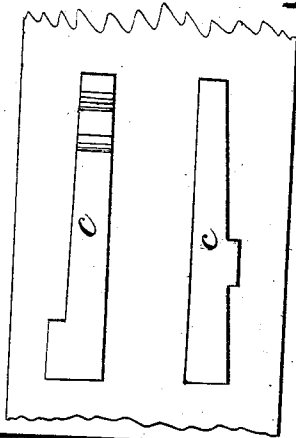
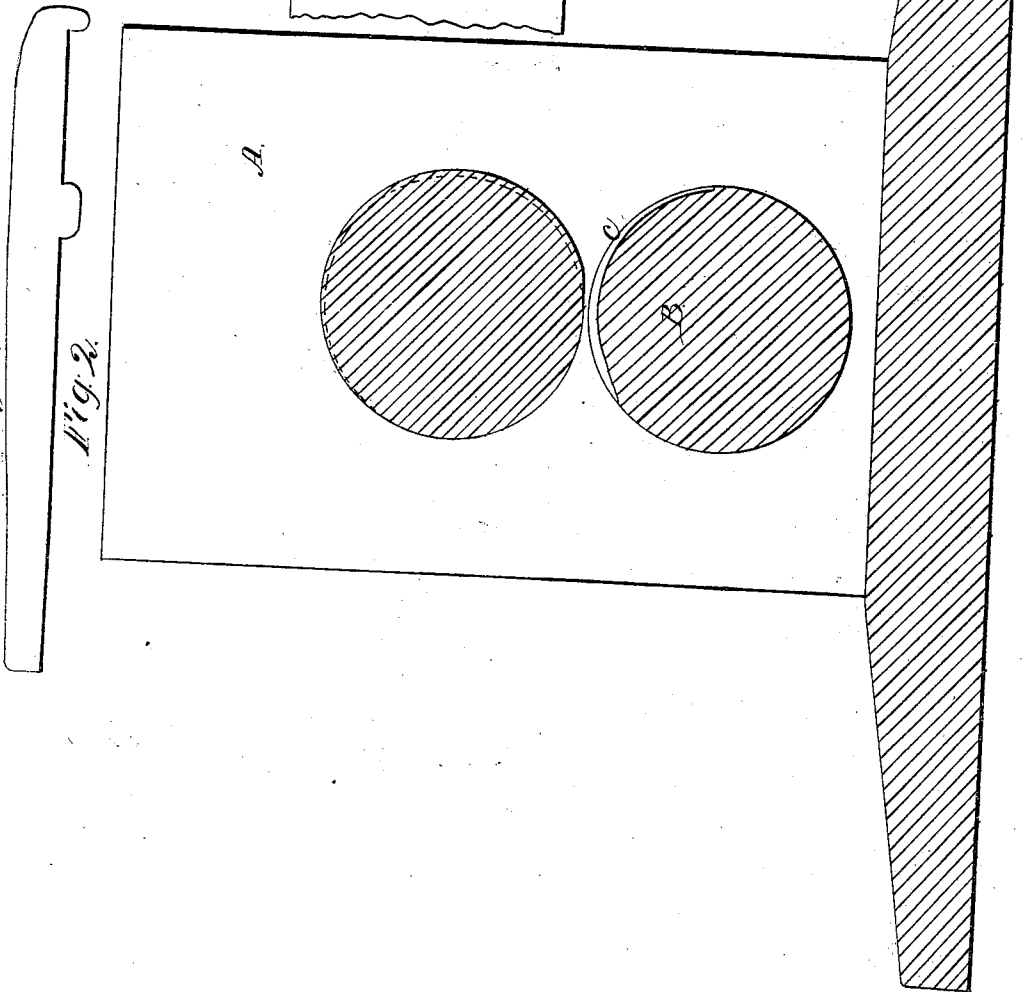


Fig. 4.

Fig. 2.



UNITED STATES PATENT OFFICE.

GEORGE P. FOSTER, OF BRISTOL, RHODE ISLAND.

FORGING GUN-LOCK SPRINGS.

Specification of Letters Patent No. 16,537, dated February 3, 1857.

To all whom it may concern:

Be it known that I, GEO. P. FOSTER, of Bristol, in the county of Bristol and State of Rhode Island, have made certain Improvements in Machines for Rolling or Forging Gun-Lock Springs, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, in which—

10 Figure 1, is an end view; Fig. 2, a vertical section; Fig. 3 a development of a portion of the surface of the lower roll; Figs. 4, 5, 6, 7 and 8 serve to illustrate the operation of the machine, and will be referred to here-
15 after.

Heretofore the articles which my machine is designed more especially to manufacture have been forged by hand, and my invention has for its object to bring the blanks approximately into the form required at a single heat, and at a single operation of the rolls; so that they may afterward be expeditiously bent into form.

25 In the accompanying drawings A are the standards or frame work in which the forging rolls run. The lower roll B has a die *c* sunk beneath its surface, and carries at one end a cogged wheel C which engages with a segment of teeth D upon the shaft of upper
30 roll. This roll has a portion of its surface cut away as seen in Fig. 2 for a purpose which will be presently explained.

E is a band or strap of leather, one end of which is secured to the roll B the other end
35 being attached to the spring F by which means or its equivalent the roll when not

otherwise driven, is held in the position seen in Figs. 1 and 2 the arm G secured to its shaft resting against the pin H.

The power which drives the machine is 40 applied to the shaft of the upper roll, and as this revolves in the direction indicated by the arrow (Fig. 1) the teeth D engage with the wheel C and the lower roll is driven with the upper. A suitably formed blank 45 (Figs. 4 and 5) is now inserted between the rolls immediately over the die, and as the rolls continue to revolve, the larger portion of the upper one is made to bear upon the surface of the lower one, and the blank 50 which was heated before insertion, is rolled out and forced to assume the form of the die; so soon as this is effected the surfaces of the rolls separate from each other, as the radius of the upper one is no longer suffi- 55 cient to keep them in contact; and the teeth D at the same time disengaging from the wheel C, the lower roll is suddenly drawn back by its spring F, ready to receive another blank, which is in turn forged and 60 drawn out as before; and thus the operation of the machine continues.

What I claim as my invention and desire to secure by Letters Patent is—

Operating the rolls by means of the 65 cogged segment D, wheel C and spring F in the manner and for the purpose substantially as herein set forth.

GEO. P. FOSTER.

Witnesses:

WM. C. G. CUSHMAN,
A. T. BURNSIDE.