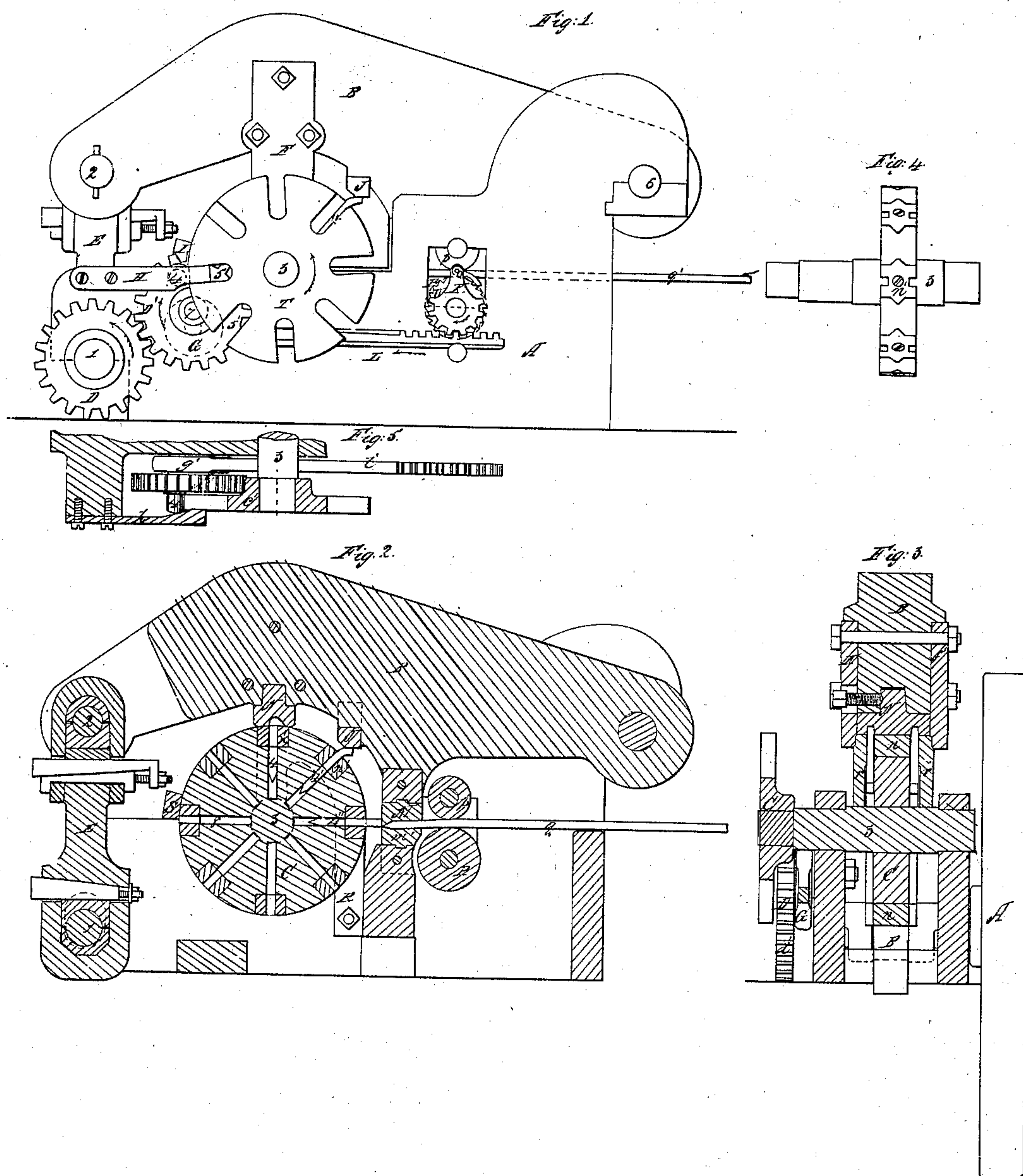


C. A. McPHETRIDGE.
SPIKE MACHINE.

No. 15,928.

Patented Oct. 21, 1856.



UNITED STATES PATENT OFFICE.

C. A. McPHETRIDGE, OF ST. LOUIS, MISSOURI.

SPIKE-MACHINE.

Specification of Letters Patent No. 15,928, dated October 21, 1856.

To all whom it may concern:

Be it known that I, C. A. McPHETRIDGE, of St. Louis, in the State of Missouri, have invented a new and useful Machine for
5 Manufacturing Spikes, Bolts, and Rivets; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference
10 marked thereon.

The nature of my invention consists in the arrangement of feeding in round or square bar iron in a heated state through feeding rollers cutting, pointing, bending,
15 heading railroad spikes, bolts or rivets at each motion of the lever B, operated by steam or other power.

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

I construct the machine of any suitable materials.

Figure 1 is a side view of my new spike and rivet machine. Fig. 2 is a longitudinal
25 section. Fig. 3 is a cross section of Fig. 1. Fig. 4 the shaft and conducting arms and Fig. 5 a plan of the feeding movements.

The same letters in the different figures refer to the same parts of the machine.

30 D is one of the cog wheels, and *g*, a stalled cam to which the ratchet bar C, is attached and working on pinion K, moving pawl *o* which connects with the ratchet wheel *n*, and moves rollers P *p'* and feeds in the rods
35 *q*, *q*, into the grooved conducting arms 4, 4'', 4'''; E, the pitman connected at its lower end to the crank 1, and to the lever B, at its upper end by the journal 2. F, *f*, the closing guides to keep the spike in place
40 while in the act of heading; T, the slanted flange; H, the spring lever; K, the pinion; G, the cam; S, the eradicator; M, *m*, the cutting and pointing dies; J, the binding and N the heading dies; V, the ratchet
45 wheel; *v*, the pawl; P, *p'*, the feeding rollers; L, the ratchet bar; 6, the journal of the heading lever B; *q*, the rod to be cut into spikes; D, D, cog wheels; 3, the conducting
50 arms.

A, Fig. 2 the driving wheel which in its

revolutions raises the pitman E, and lever B, which contain one half of the cutting dies M, *m'*, the bending die J, and heading dies N, which completes the feeding, cutting,
55 pointing, binding and heading operation.

On the side of pinion D, is attached pin 4, which by the motion of wheel D, the pin 4 is made to lift spring lever H, out of the slant 5' and in its onward motion moves the
60 slotted flange C, R the lower die C, the conducting arm P *p'* the feeding rollers S, the eradicators, the eradicator is a curved wedge pointing toward the heading dies and attached to the frame, and occupies a central
65 position, between the grooves in the conducting arms and by its wedged form forces the spike at right angles with the motion of the grooved arms, thus eradicating the spikes 4 4' 4' the spikes in the arms
70 showing the working position of the machine, 8 the spike in its finished state ready to be thrown out by the eradicator S, 3 the shaft of the conducting arms 1, the crank, 2 the pitman journal, B the lever, Fig. 3 A the driving wheel and crank 1, C, C, the
75 conducting arms slanted flange and shaft 3, D, D, the cog wheel and pinion G the slotted cam, *r*, *r*, the stationary or lower die N, N, the heading dies F of the closing guides to keep the lower dies R, in close contact with the conducting arms to which is
80 attached a part of the heading dies.

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

85 1. The conducting arms C, C, as constructed when operating in connection this the means employed for cutting pointing heading and clearing, and the closing guides E, F, as described.

90 2. I also claim the use of the feed rollers P, P, the ratchet wheel V, bar C, pinion K, pawl O, in connection with the wheels D, D, and the pin 4 when constructed and operated in the manner and for the purposes set forth.

C. A. McPHETRIDGE.

Attest:

JOHN H. WISE,

JOHN S. HOLLINGSHEAD.