

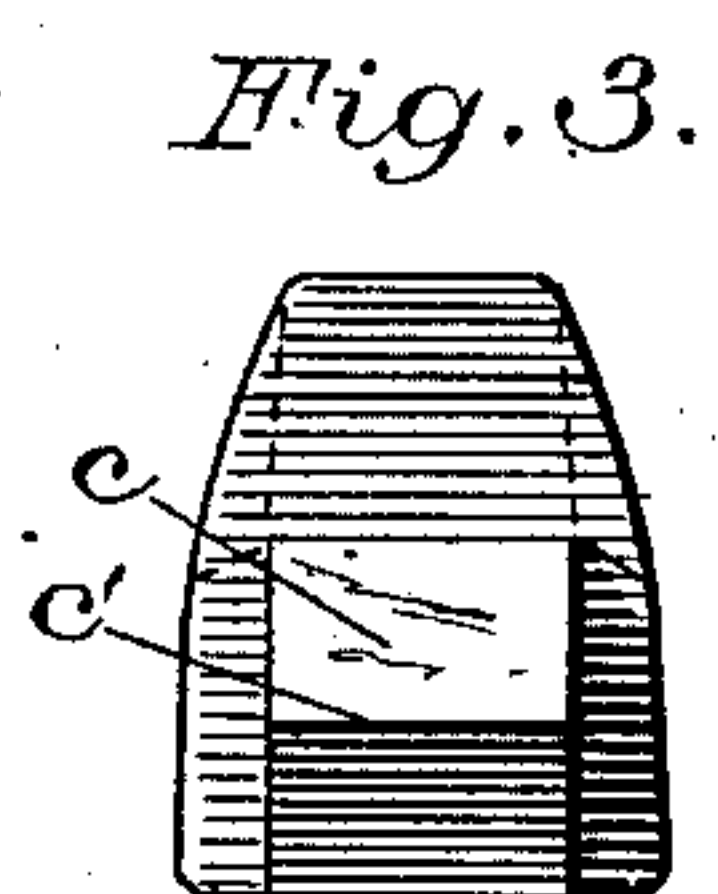
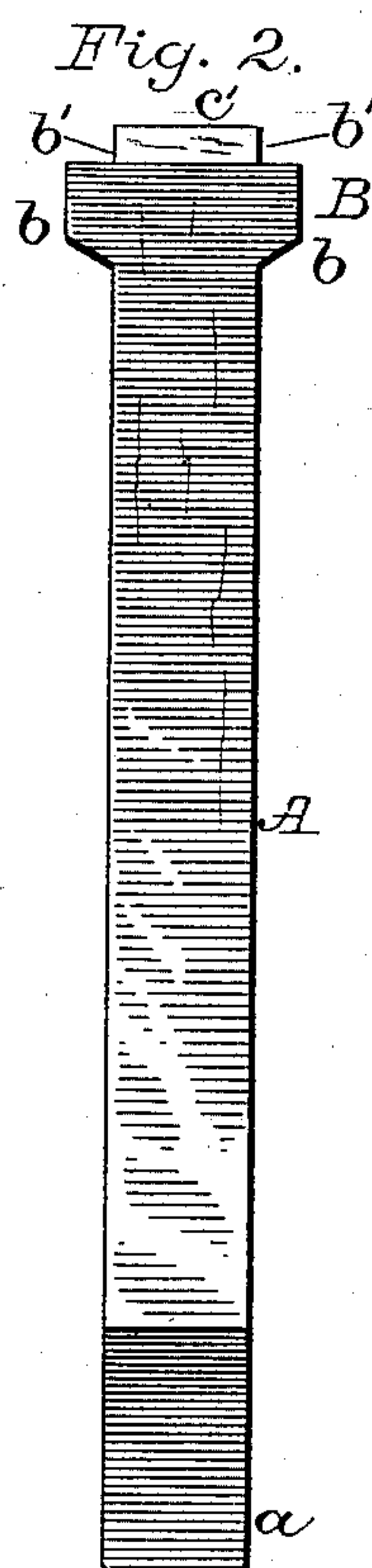
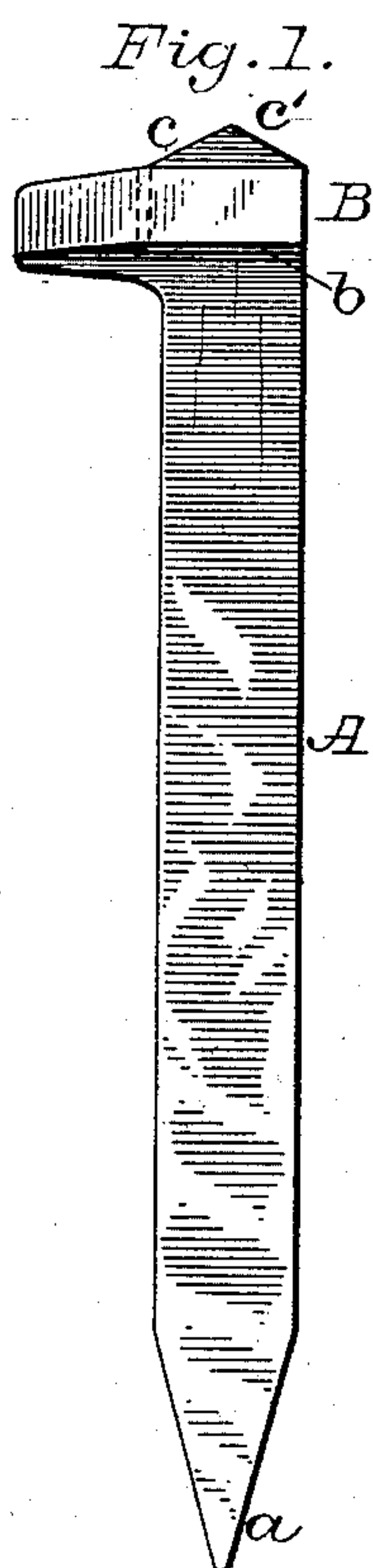
(No Model.)

H. W. FOWLER.

RAIL SPIKE.

No. 279,736.

Patented June 19, 1883.



Attest:
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UNITED STATES PATENT OFFICE.

HERVEY W. FOWLER, OF CHICAGO, ILLINOIS.

RAIL-SPIKE.

SPECIFICATION forming part of Letters Patent No. 279,736, dated June 19, 1883.

Application filed January 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, HERVEY W. FOWLER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rail-Spikes; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

My improved spikes are preferably manufactured under certain Letters Patent issued to me May 17, 1881, No. 241,641; but other methods and mechanism may be employed in their production, because it is immaterial in what way the novel features of my improved spikes are produced.

The objects of my invention are to provide for the delivery of the force of a driving blow in a line with the axis of the shaft and with the point of the spike; also, for the protection from said blow of the claw flanges or ears on the head, by which the rail-spike is withdrawn; and, still further, for such a distribution of the metal comprised in the head as will afford the maximum strength with the minimum weight of metal which it is practicable to embody in a rail-spike head when proportioned with reference to obtaining the best results. To those ends my improved rail-spike has a head provided with an angular driving-crown located centrally on the head, and having its apex substantially in line with the axis of the shaft or shank and in line with the wedge-shaped point of the spike, and said crown at its sides is in line with the two sides of the shaft.

To more particularly describe my invention, I will refer to the accompanying drawings, in which—

Figure 1 is a side view of my improved spike. Fig. 2 is a back view of the same. Fig. 3 is a top view of the head of said spike.

The shaft or shank A of the spike has the usual wedge-shaped point, *a*. Although I have here shown a straight shaft, it is to be understood that, as my present improvements relate to the head of the spike, the form and character of the shaft may be widely varied without departure from the main feature of my invention.

The head B of the spike, so far as relates to the horizontal sectional outline thereof and to the laterally-projecting claw-ears *b*, is substantially like the heads of spikes as heretofore manufactured by me.

The angular driving-crown *c* is novel, and its top or apex *c'* has a straight edge, which is substantially in line with the axis of the shaft, and it is also parallel with the edge of the wedge-shaped point *a*, and therefore a driving blow from a maul is delivered directly in line with the axis of the shaft, and the bearing of the face of the maul upon the crown is parallel with the entering edge of the spike-point as it penetrates a tie. Each side of the angular crown, as at *b'*, as will be seen, is in line with the adjacent side of the shaft, and the angular top or apex is so far abruptly elevated above the upper surface of the claw-ears *b* that the latter are protected from contact with the driving-maul; and it is obvious that the liability of battering and splitting the head in driving is thus reduced to a minimum. By thus providing the angular driving-crown, the front part of the head and the claw-ears may be properly proportioned for the requisite strength with a minimum weight of metal.

Rail-spikes as usually made have heads of excessive weight, with a view to obviating battering and splitting; but I effect better results in this connection with much less metal because of its peculiar distribution in the spike-head, and, as a matter of fact, four hundred of my improved spikes of standard size weigh no more than three hundred and sixty-five spikes as heretofore made with upset heads of the same standard length and square of shaft.

It is sometimes preferred that the claw-ears do not extend alongside of the lip, as indicated in dotted lines, Figs. 1 and 3; but this variation in the length of the ears involves no departure from my invention.

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

1. The improved rail-spike provided on its head with an angular driving-crown having its angular top or apex in line with the axis of the shaft, substantially as described.

2. The improved rail-spike having a wedge-shaped point and a head provided with an an-

gular driving-crown having its straight-edged angular top or apex in line with the axis of the shaft and parallel with the edge of the wedge-shaped point.

- 5 3. The improved rail-spike having claw-ears at each side of the head and an angular driving crown on said head abruptly elevated

above the upper surfaces of said ears and in line with the sides of the shaft, substantially as described.

HERVEY W. FOWLER.

Witnesses:

HENRY H. MORGAN,
FREDERICK K. BOWES.