

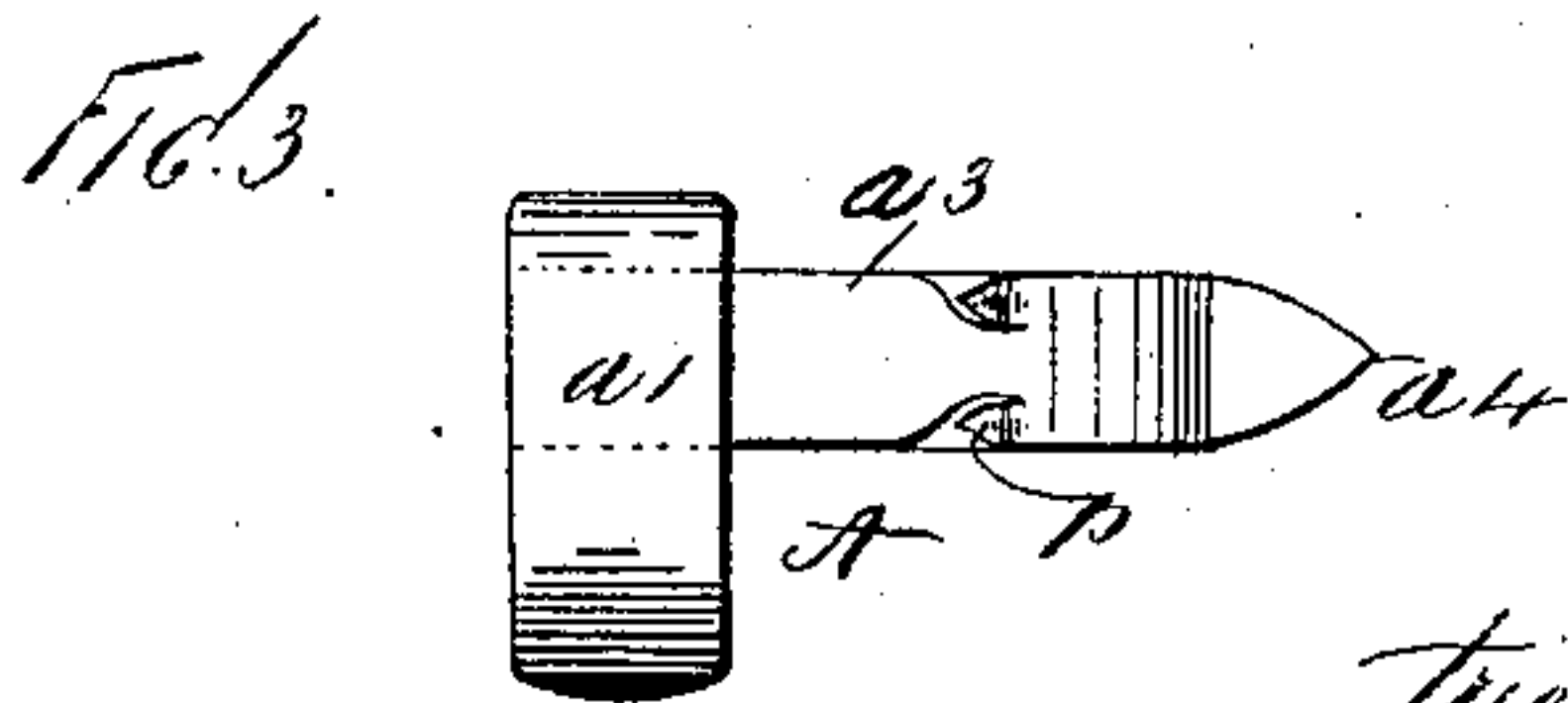
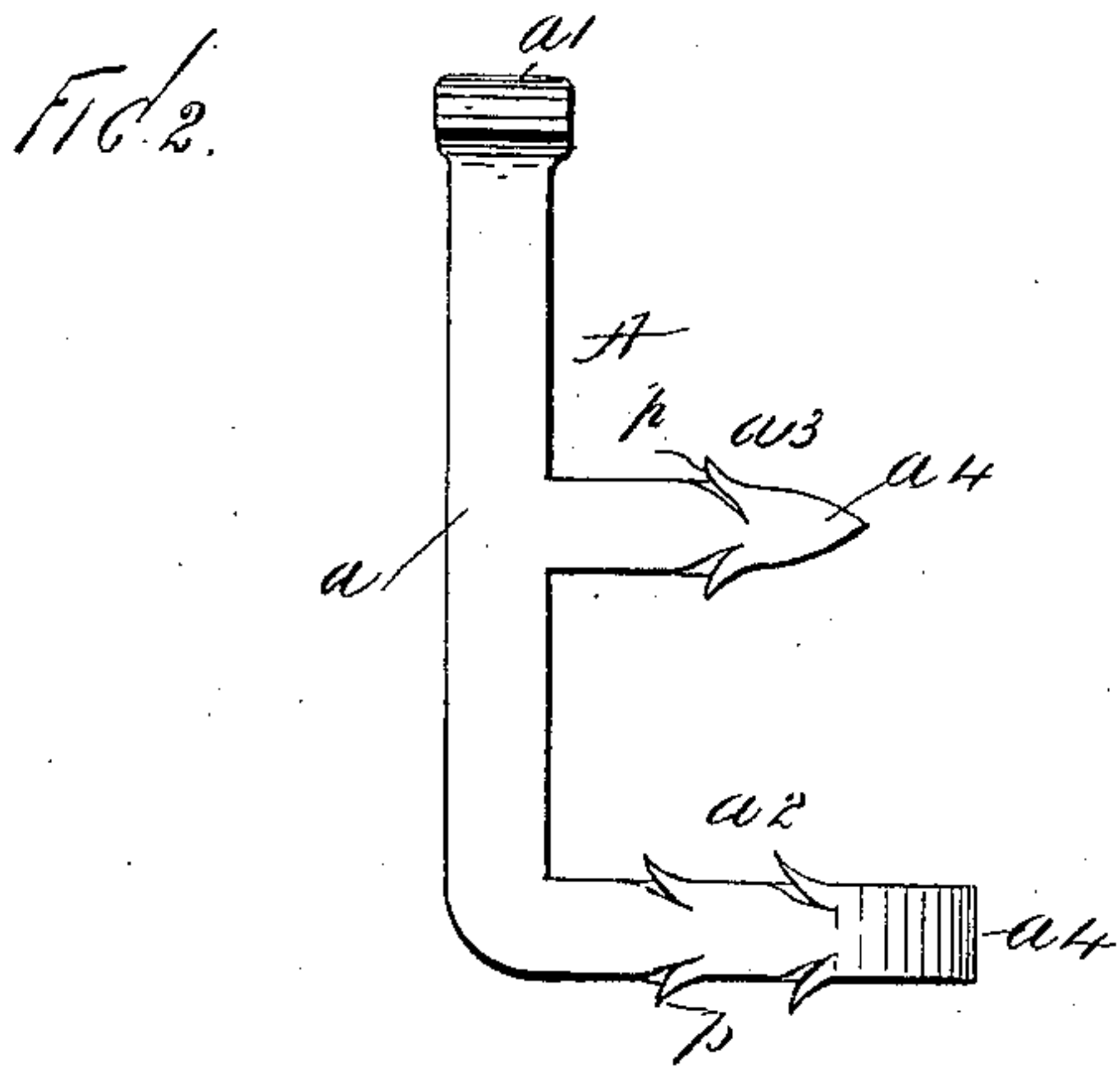
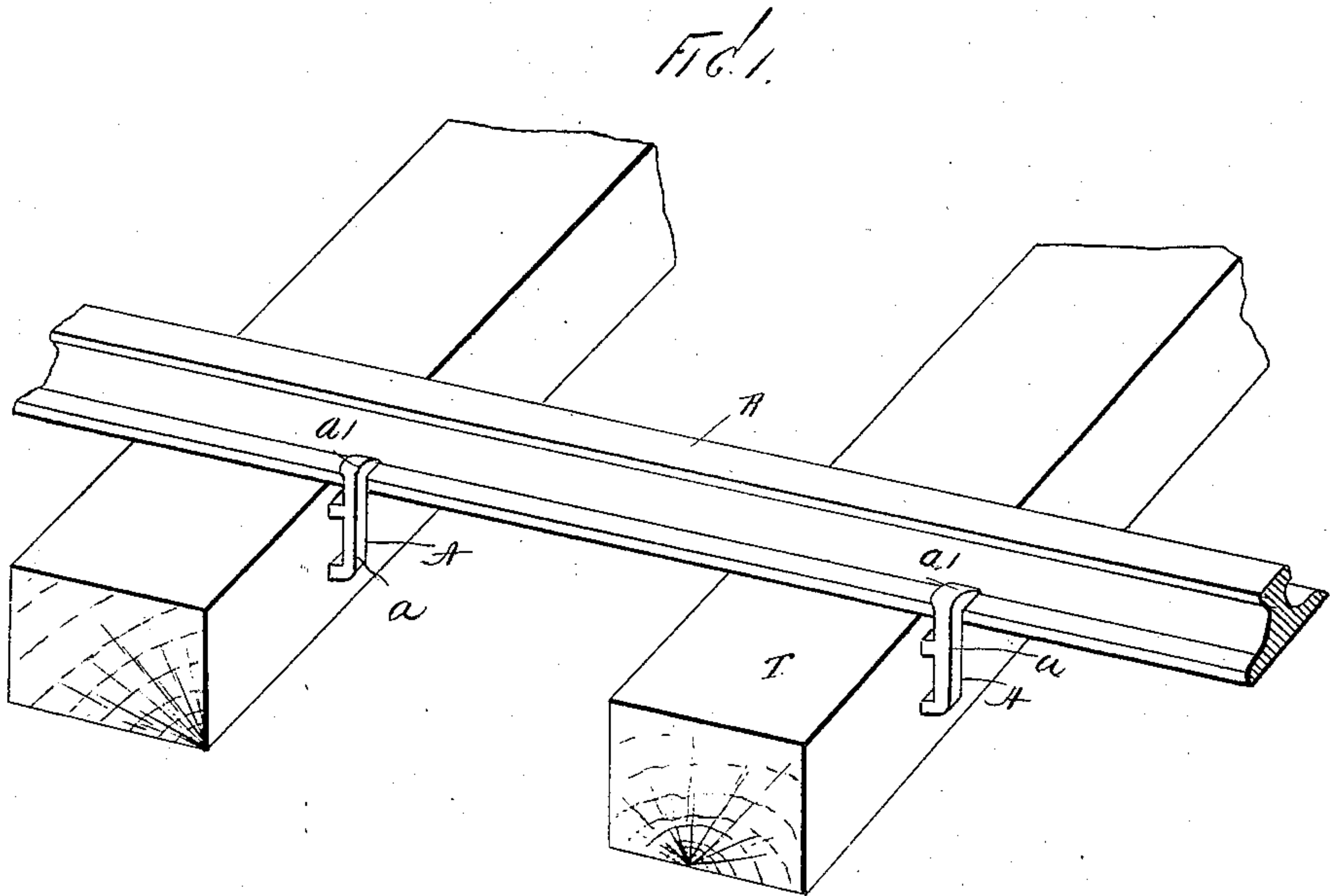
No. 607,670.

Patented July 19, 1898.

A. VAN VLIET & J. GARDENIER.
RAILROAD SPIKE.

(Application filed Jan. 31, 1898.)

(No Model.)



WITNESSES:

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INVENTORS:

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UNITED STATES PATENT OFFICE.

ARIE VAN VLIET AND JAMES GARDENIER, OF PATERSON, NEW JERSEY,
ASSIGNORS OF ONE-THIRD TO MEINDERT VAN DYK, OF SAME PLACE.

RAILROAD-SPIKE.

SPECIFICATION forming part of Letters Patent No. 607,670, dated July 19, 1898.

Application filed January 31, 1898. Serial No. 668,608. (No model.)

To all whom it may concern:

Be it known that we, ARIE VAN VLIET and JAMES GARDENIER, citizens of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Railroad-Spikes, of which the following is a full and complete specification, such as will enable those skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to railroad-spikes; and it has for its object to provide a simple and improved spike which can be more conveniently driven or applied in position and
15 which will more effectually and positively secure the rail against lateral strain or movement.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of our improvement are designated by the same letters of reference in each of the views, and in which—

Figure 1 is a perspective view showing our
25 improved railroad-spike in its application to the rail. Fig. 2 is a detail side view of the spike, and Fig. 3 is a detail top view of the spike.

Referring to the drawings, A designates the
30 spike, which comprises the main stem or shank a , carrying the head a' . In lieu of having the point at the bottom end of the stem a , as is the case in this class of spikes which are designed to be driven vertically into the cross-tie, we provide supplementary shanks project-
35 ing laterally from said main stem or shank. These supplementary shanks are preferably two in number—to wit, a bottom one a^2 and a top one a^3 , said top shank being arranged at a
40 suitable point between the laterally-projecting bottom shank a^2 and the head a' . We prefer to form the bottom shank a^2 by simply turning or bending the lower end of the main stem or shank a outwardly and laterally, as
45 shown. The driving-points are provided upon the supplementary laterally-projecting shanks a^2 and a^3 , as shown at a^4 , these points being of the usual V shape, formed by bevel-
50 ing the sides of the shanks. The points a^4 upon the respective supplementary shanks a^2 and a^3 are relatively formed at right angles,

the point upon the bottom shank a^2 being preferably in a parallel plane with respect to the main stem or shank a , while the point upon the top supplementary shank a^3 is in a
55 transverse plane with relation to the main stem or shank a .

The supplementary shanks a^2 and a^3 are provided with projecting barbs or points p , which operate to resist the withdrawal of the
60 shanks from engagement with the cross-tie. These barbs or points are preferably formed by cutting or slitting the square edges of the shank and turning said slitted portions out-
65 wardly, so that they project laterally with respect to the face of the shank and in a relatively opposite manner, as shown in Figs. 2 and 3 of the drawings.

The supplementary laterally-projecting shanks are arranged at right angles to the
70 projecting head, as shown.

The operation and advantages of our invention will be readily understood. In Fig. 1, R designates the rail, and T the cross-tie. The spike is adjusted with respect to the base-
75 flange of the rail so that the head a' engages the same in the usual manner, and the main stem or shank a projects downwardly and in parallel relation to the side of the cross-tie. Then by driving the spike laterally the sup-
80plementary laterally-projecting shanks a^2 and a^3 will enter the side of the cross-tie. By reason of the right-angular arrangement of the lateral shanks with respect to the head of the spike and the relatively right-angular
85 arrangement of the points a^4 of the shanks a secure and effective resistance against strain or movement of the rail in any direction is provided and convenience in driving the spike
90 into position is secured.

Having fully described our invention, we claim as new and desire to secure by Letters Patent—

1. An improved railroad-spike, comprising the main stem or shank carrying the head, a
95 supplementary laterally-projecting bottom shank, and a supplementary laterally-projecting shank between said bottom shank and the head, said supplementary shanks project-
100 ing at right angles to the head of the spike and being respectively provided with points relatively arranged at right angles to each

other, substantially as and for the purpose set forth.

2. An improved railroad-spike, comprising the main stem or shank carrying the head, a
5 supplementary laterally-projecting bottom shank, a supplementary laterally-projecting shank between said bottom shank and the head, said supplementary shanks projecting at right angles to the head of the spike and
10 being respectively provided with points relatively arranged at right angles to each other and with projecting barbs or points, substantially as and for the purpose set forth.

3. An improved railroad-spike, comprising

a main stem or shank carrying laterally-pro- 15
jecting supplementary shanks having their points respectively arranged in different planes relatively to each other, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as 20
our invention we have signed our names, in presence of the subscribing witnesses, this 25th day of January, 1898.

ARIE VAN VLIET.
JAMES GARDENIER.

Witnesses:

JOHN JAMES GARDENIER,
CORNELIUS VAN VLIET.