

(No Model.)

W. GOLDIE.
RAILROAD SPIKE.

No. 457,582.

Patented Aug. 11, 1891.

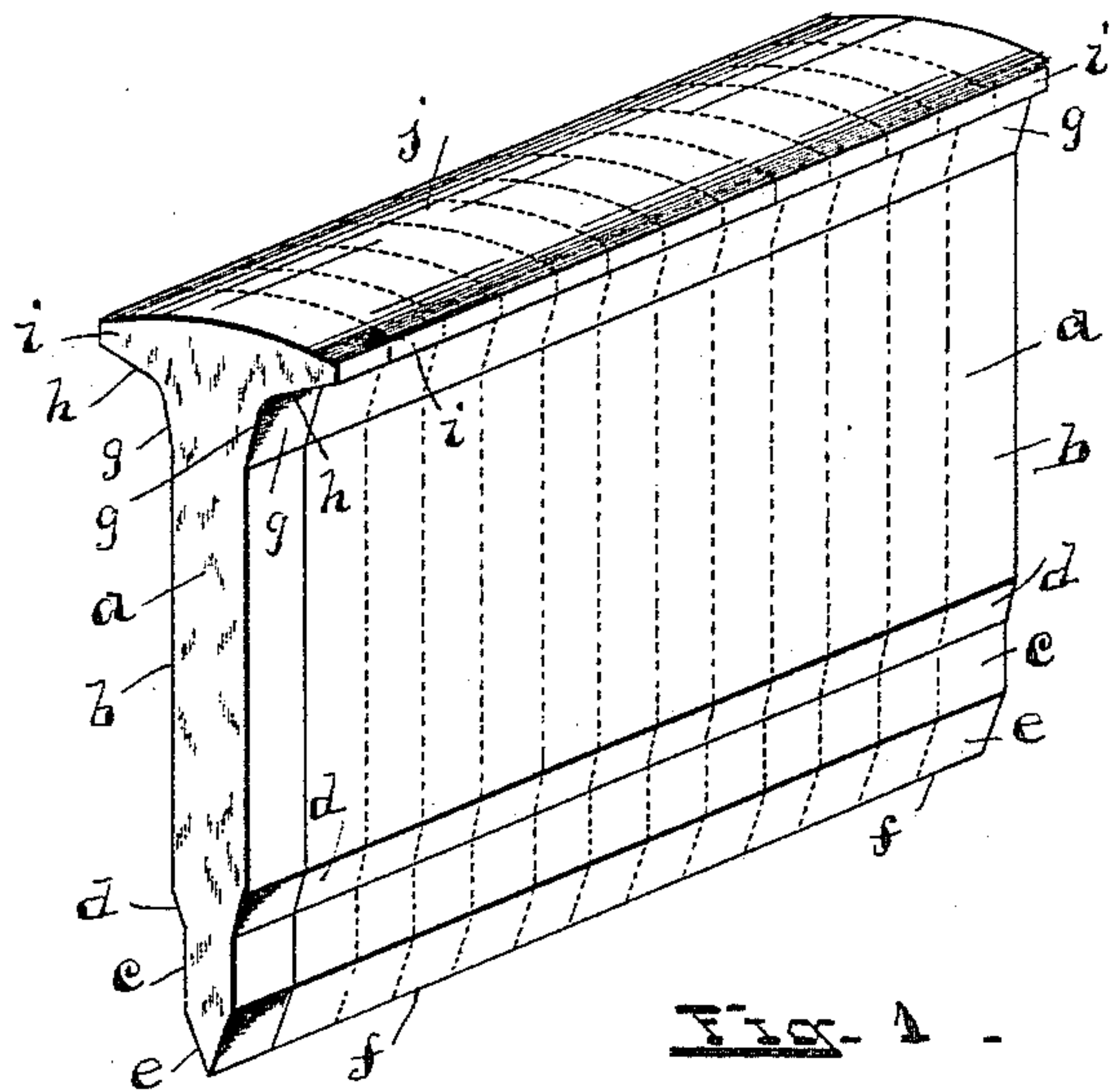


Fig. 1 .

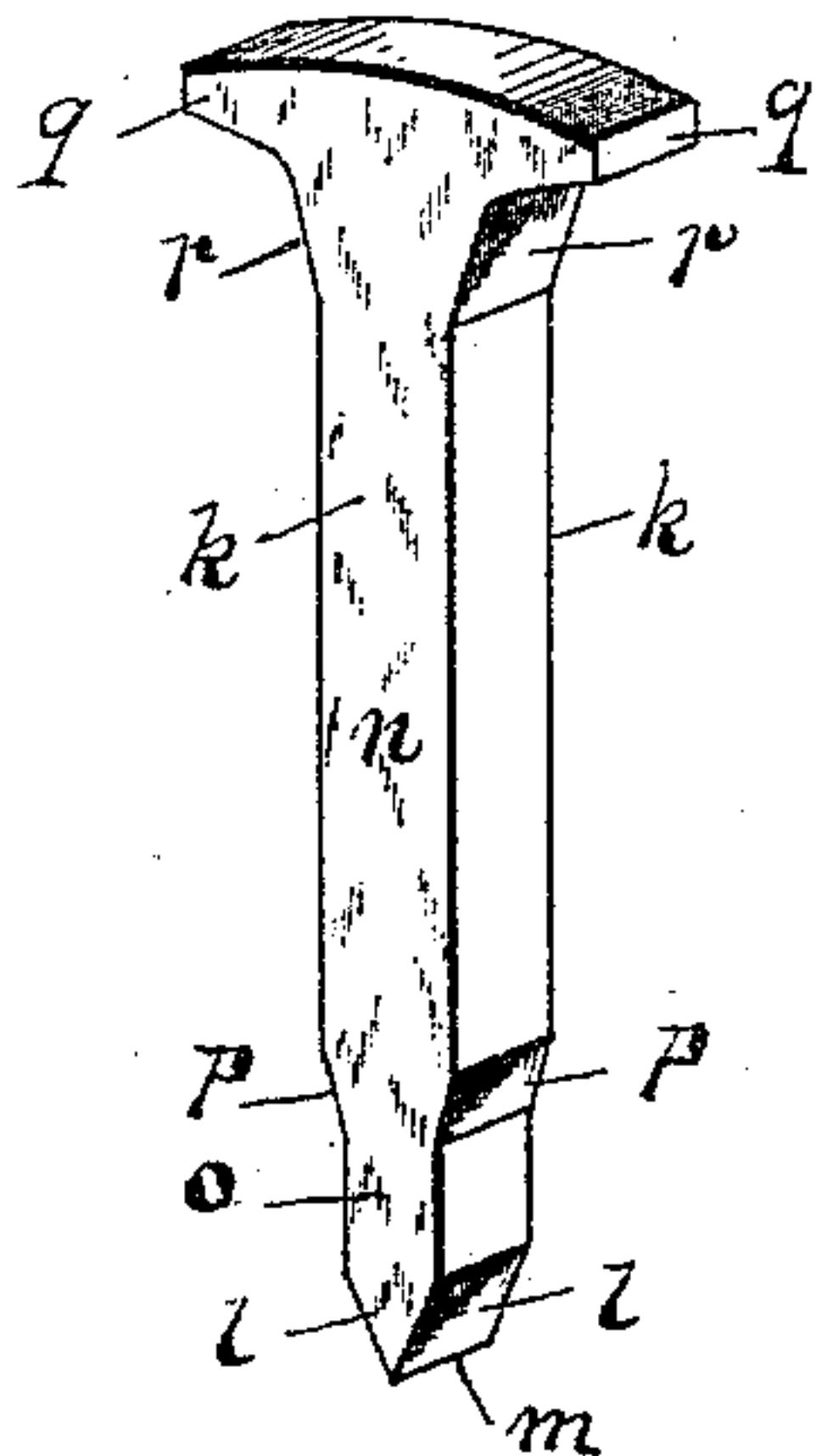


Fig. 2 .

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UNITED STATES PATENT OFFICE.

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RAILROAD-SPIKE.

SPECIFICATION forming part of Letters Patent No. 457,582, dated August 11, 1891.

Application filed November 4, 1890. Serial No. 370,317. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GOLDIE, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Railroad-Spikes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to railroad-spikes and in metal bars for the manufacture of the spikes, and relates particularly to the form and contour of a bar adapted for manufacturing railroad-spikes by cutting the spikes transversely from the end of a rolled metal bar having its sides so arranged and of such configuration that the front and rear sides of the spike thus severed from the end will have the desired contour and dimension to form my improved spike without further attention or manipulation.

My improved spike-blank bar is intended for use in manufacturing a railroad-spike of peculiar and improved form and construction, a full description and illustration of which will be given hereinafter.

The invention consists in a bar of rolled metal having a body portion with parallel sides and having one edge portion reduced in thickness and provided with sloping surfaces connecting with the surfaces of the reduced portion and the body portion and with the edge of the reduced portion sloping in a V form to a cutting-edge and having both sides of the opposite edge of the body portion provided with outwardly-sloping surfaces terminating with laterally-projecting flanges with the outer surfaces of the flanges coincident with and forming one surface of convex form with the edge of the body portion.

The invention also consists in railroad-spikes having its lateral sides provided with plane surfaces and having a body portion of quadrate form with parallel sides and having a point portion reduced in thickness from front to rear with parallel sides joined to the front and rear sides of the body portion by

outwardly-sloping surfaces and terminating with inwardly-sloping surfaces forming a cutting-edge and provided on the front and rear sides of the opposite end portion of the body with outwardly-sloping surfaces terminating in outwardly-projecting flanges to form the head portion of the spike.

The invention also consists in a railroad-spike having its lateral sides provided with plane and uniform surfaces and having its head portion projecting outwardly from its front and rear sides.

The invention also consists in the form and arrangement of the spike, as I shall hereinafter fully describe, and which will be specifically set forth in the claims of this specification.

The object of this invention is to cheaply and easily produce a railroad-spike having superior holding and driving qualities.

Another object of the invention is to produce spikes of a uniform shape and contour, and with clean thin cutting-edges, whereby the wood of the tie will be easily compressed and remain solid and firm around the driven spike.

Another object of the invention is to provide a means whereby spikes of the form and class stated can be manufactured without complicated and expensive heading and pointing mechanism, whereby a cheaper and superior article of manufacture is produced.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved bar for manufacturing spikes. Fig. 2 is my improved spike made from the bar.

a represents the body portion of the bar, and is provided with substantially parallel sides *b*, and near one edge of the bar is reduced in thickness, and provided on each side with the narrow parallel sides *c*, which are joined to the sides of the body by the diverging surfaces *d*, while the edge of the bar is provided with converging surfaces *e*, which form a V-edge *f*. The opposite edge portion of the bar is provided on each side with the surfaces *g*, sloping slightly outward and terminating with the inner surfaces *h* of the flange *i*, which project laterally from the body, and are arranged with their outer surfaces coincident with the edge of the body portion and forming one surface *j*

therewith of a convex form. The bar is formed by rolls of a proper form in the usual way, and the spikes are cut from the end of the bar by cutters of any well-known type, the bar being fed to the cutters, so that sections of proper widths are severed from the bar, and each section constitutes a spike having the form and contour shown in Fig. 2, the lateral sides *k* of the spike being plane and parallel from end to end, while the point will be provided with V-sloping sides *l*, forming a cutting-edge *m*, a body portion *n*, and a reduced portion *o*, having parallel sides and with diverging compressing-surfaces *p* between the surfaces of the portions *n* and *o*, and provided with a head portion composed of flanges *q*, projecting on both the front and rear sides of the end of the body *n*, so that the spike can be placed with either side to the rail and with the neck portion directly below the flanges provided with outwardly-sloping portions *r*, which bear against the edge of the rail-flange and receive the wear thereof and also reach into the timber and firmly compress the wood directly at the surface of the tie to form a firm and solid backing or support directly at the source of lateral strain and to prevent also the admission of water around the spike by allowing the downwardly-compressed but unbroken fiber of the tie to expand, so as at all times to lie firmly and closely against the spike. The head projecting upon both sides of the body allows the spike to be reversed, and the rearwardly-projecting portion of the head forms a hold for a claw-bar of ordinary form and construction to be used without change for withdrawing the spike from the tie.

Of course I do not confine my invention entirely to the form of spike-point shown, as other forms of the point may be substituted so long as a cutting-edge is provided with a suitable edge for puncturing the tie and severing the grain of the timber, the principal feature of the spike being to render it reversi-

ble, so that whenever the neck is worn away to loosen the rails it may be withdrawn and reversed, and the rail is then as well secured as with a new spike, so that in a spike of this form a double wear is provided by merely withdrawing and reversing the spike.

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

1. A reversible railroad-spike having a body portion of rectangular form and provided with lateral sides having plane surfaces throughout and with the surfaces of the lateral sides of its head portion coincident with the lateral sides of its body and provided on both the front and rear sides of its head portion with projecting flanges lying in the same transverse plane and having the under sides of the said flanges fitted to the contour of the base of the rail and provided with a point portion having its dimension reduced from front to rear and terminating with a cutting-edge and having on its front and rear sides inclined surfaces joining the surfaces of its body portion with the surfaces of the said reduced portion, substantially as set forth.

2. A bar for the manufacture of spikes, consisting of a body portion having parallel sides and with one edge portion of the bar reduced in thickness and terminating with a V-edge and with sloping surfaces joining the surfaces of the body portion with the surfaces of the said reduced portion, and provided on the lateral sides of its opposite edge with flanges projecting in opposite directions on the same transverse plane and with the inner sides of the said flanges fitted to conform to the contour of the base-flange of a railroad-rail, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM GOLDIE.

Witnesses:

THOS. C. PITCAIRN,
JAMES G. MONTGOMERY.