To all whom it may concern:

Be it known that I, Howard W. Young, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Rail-Holding Devices, of which the following is a specification.

This invention relates to an improved spike device to hold rails to cross-ties.

The invention comprises two separate parts and is illustrated in the accompanying drawing, and will first be described and then pointed out in the claims.

In the drawing, Figure 1 is a side view of the improved spike device as it would appear when the two parts have been driven into a cross-tie. Fig. 2 is a side view of the inner prong-part, as it appears before being driven into the spike-body. Fig. 3 is a vertical section showing both parts of the rail-holding device. Fig. 4 is a top view of the spike-body and shows the four-way crotch in the interior thereof. Fig. 5 is a top plan of the head of the inner prong. Fig. 6 is a back view of the upper portion of both parts of the device. Fig. 7 is a vertical section of a rail and cross-tie and shows the spike device in position.

The purpose of a spike device made in two parts, in the fashion here shown, is first that the spike-body, A, with its hook-head, b, that takes onto the base, c, of the rail, D, to hold the rail down, will also have an internal bore; and second, that the inner-part, L, that enters said bore will have a prong that shall project from the internal bore, and the said projecting part turn off laterally into the wood of the cross-tie, and thereby aid in preventing the spike-body from loosening.

The spike-body, A, is shown of cylindrical shape and a tapered point, p; it has an internal bore, e, that extends from its top end down to crotch, f; and four passages or ways, g, lead from this crotch and all four open at the outside of said spike-body. The top of the spike-body has a hook-head, b, that may have two edges beveled or tapered, as at, h, and a head consists of three right-angled lower sides, i, i, i, and a flat top surface, j, which is above or higher than said three sides; the higher flat surface, j, permits the formation of a rabbet or channel, k, above the three sides. This rabbet or channel, k, serves a useful purpose when the prong-part, L, is to be withdrawn, as will be presently described. At the top of the internal bore, e, said right-angled head is provided with a reamed-out enlargement, m, seen in Figs. 3 and 4; this serves to avoid any partial closure of the top of said internal bore, e, that might otherwise occur by a hammer or sledge striking on the high flat surface, j, when the spike-body is being driven into the cross-tie.

The inner prong part, L, has a head, n, shaped much the same as the head of the spike-body; the shank of this prong part has a size that enables it to slip freely down into the internal bore, e, of said body, and when this part is fully in its position the said head, n, will seat upon the high flat surface, j, as shown in Figs. 1, 3 and 6. It will be seen the rabbet or channel, k, forms below the head, n, a space into which may be inserted the point of a lever, when the prong part, L, is to be withdrawn.

The prong part has its lower end divided into four pointed prongs, o, which may be of equal length, and the prongs may have any desired shape in cross-section. The material of the prongs will permit them to bend. When the shank part, L, is inserted into the bore, e, the said four prongs will be straight, as in Fig. 1; when the ends of the four prongs reach the crotch, f, each prong will take into one of the four ways of passages, g, that radiate from said crotch, and upon striking the head, n, with a hammer the prongs will bend and the ends of the prongs will project outside of the spike-body, A, as shown in Figs. 1 and 3; and these laterally projecting prongs, o, will engage the wood of the cross-tie, k, and contribute to prevent the spike-body from becoming loose.

Having thus described my invention what claim and desire to secure by Letters Patent is:

1. The improved rail-holding device consisting of a spike-body having a central internal bore, a hook-head at the top and projecting at one side—said hook-head having three other sides, i, at right angles to each other, a flat top surface higher than said three sides, and a rabbet or channel, k, along said three sides and an inner shank fitting within said bore and having a head whose shape is similar to the head of the spike-body.
body said shank-head seating on the higher flat top surface of the spike body and its edges projecting over the rabbet or channel.

2. The improved rail-holding device consisting of a spike-body having a hook-head projecting at one side with a flat-top striking surface, an internal bore in said body and the flat-top surface provided with an annular space around the bore; and a shank fitting in said bore and having a head that is flat at its under side to seat in close contact with the said flat-top surface of the hook-head and leave the said annular space unoccupied.

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

HOWARD W. YOUNG.

Witnesses:

G. Ferd Vogt,
Louis C. Klerlein.