

C. J. GADD.
 HEAD SUPPORT FOR SCREW SPIKES.
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Patented May 27, 1913.

Fig. 1.

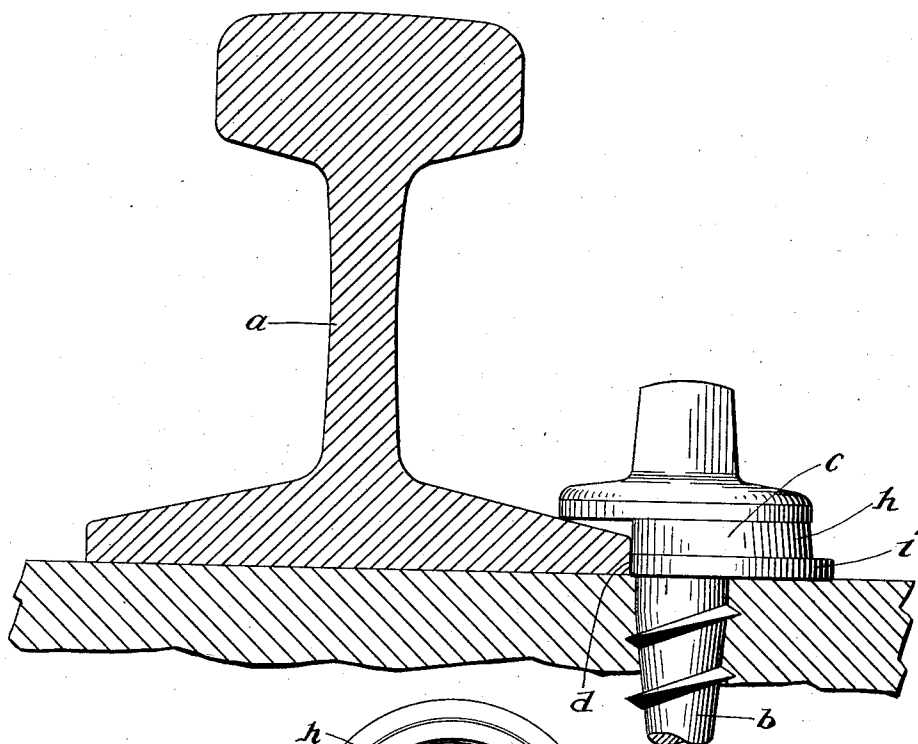


Fig. 2.

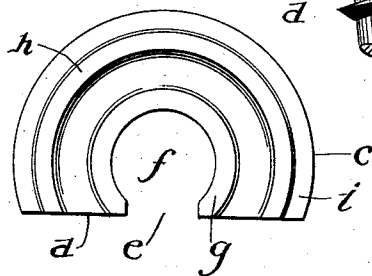
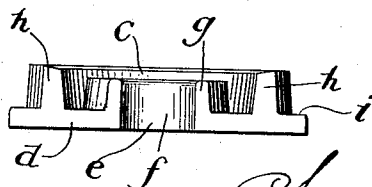


Fig. 3.



WITNESSES

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HEAD-SUPPORT FOR SCREW-SPIKES.

1,062,905.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES J. GADD, a subject of the King of Great Britain, and a resident of Lebanon, in the county of Lebanon and State of Pennsylvania, have invented certain new and useful Improvements in Head-Supports for Screw-Spikes, of which the following is a specification.

My invention relates to a head support for screw spikes and the object of my invention is to furnish a self contained means for supporting that part of the head of a screw spike opposite the part which engages the top of the flange of the rail.

My invention is illustrated in the accompanying drawings in which—

Figure 1, is an end elevation of a railway rail showing a screw spike and my support. Fig. 2, a plan of my support. Fig. 3, a front elevation of Fig. 2.

a represents a railway rail. *b* a screw spike and *c* my spike head support.

It is the usual practice in railway construction, when screw spikes are employed to fasten the flange of the rails to the ties, to bore a hole in the tie and to screw therein the threaded part of the spike until a portion of its head engages the top of the flange of the rail, the part of the head not engaging the flange being entirely unsupported. This method of using the spikes results in various troubles and considerable damage due to the unsupported side of the head working with the passing loads and eventually the spike bends or breaks in the shank. Of late various forms of tie plates with raised lugs to support the outer side of the spike head have been placed upon the market, it will understood that I make no claim upon such construction, my invention being confined to a device the sole purpose of which is to support that part of the spike head unsupported by the flange of the rail.

My head support *c* is preferably, but not necessarily, made from a rolled section as shown in Figs. 2 and 3. It has upon one side a straight face *d* which is adapted to lie close against or parallel to the rail and forms a perfect bearing for all that part of the head projecting past the flange.

e is an open slot communicating with the hole *f* through which the spike passes. The slot *e* should be of sufficient width to permit it to be slipped in between the threads and

past the spike when the latter is sufficiently raised to expose the threads. That part of the spike just beneath the heads, the shank, which permanently occupies the hole *f* being of some considerably greater diameter than the part between the threads will, when the spike is screwed home, be too large to pass through slot *e* and will prevent the head support from moving from place.

To reduce the weight of metal and to at the same time maintain proper strength the head support is formed with two risers or flanges *g—h* which are carried by the base *i*. It is my purpose to make these flanges sufficiently high to operate in connection with the thickest flange rolled on railway rails and to flatten these flanges down in dies as may be necessary to adapt the device for use with rail flanges of less height. This is, however, a detail of manufacture and separate dies can be used for making the support of a number of different heights if desired.

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

1. A head support for screw spikes consisting of a washer having a flat side adapted to be placed contiguous to the base of a rail and the top of which is shaped to conform to the under part of the spike head, which has a hole for the passage of a spike and a slot extending from said flat side to said hole, said slot being of less width than the diameter of the spike but wider than that part of the spike included between the threads of the screw.

2. A head support for screw spikes consisting of a washer having a flat side which is adapted to lie adjacent to the flange of a rail, which is perforated for the passage of a spike, the top part of which slopes upward and outward in all directions from the center of said perforation, and which is furnished with a slot extending from said flat side to said perforation, said slot being of less width than the diameter of the spike but wider than that part included between the threads of the screw.

3. A head support for screw spikes consisting of a washer having a coned depression to conform to the cone on the under side of the screw spike head, said washer being segmental in form with a flat side and having a hole in its center and a slot communicating with said hole said slot having a

width less than the diameter of the shank of a spike but wide enough to pass between the roots of the thread thereon.

4. A head support washer for screw
5 spikes consisting of a disk of metal segmental in form having a base and one or more segmental flanges of different heights to conform to the angle of the cone on the under side of the spike head, a flat side, a

hole in its center and a slot communicating 10 with said hole, said slot being of a width less than the diameter of the shank of the spike but wide enough to pass between the roots of the thread upon said spike.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."