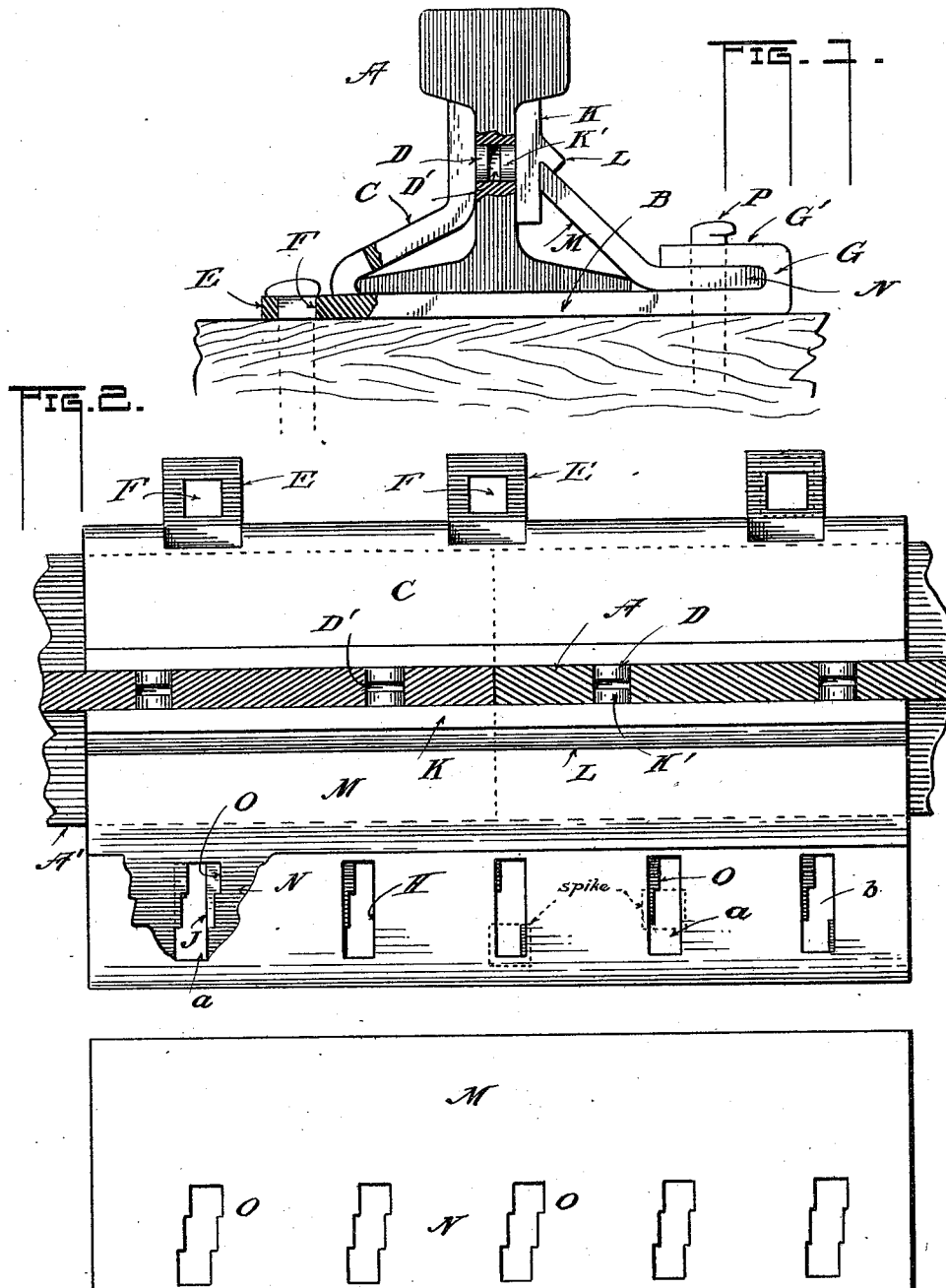


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RAIL SPLICE.
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1,015,521.

Patented Jan. 23, 1912.



Witnesses:

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FIG. 3.

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UNITED STATES PATENT OFFICE.

EVERETT N. TUCKEY, OF YATES CITY, ILLINOIS.

RAIL-SPLICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EVERETT N. TUCKEY, a citizen of the United States, residing at Yates City, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Rail-Splices; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a rail-splice.

The object of the invention is to produce a splice in which the ends of the rails where they join will be firmly held and their top surface held flush thereby making a smooth joint for the wheels of the rolling stock.

A further object is to provide a new type of splice requiring no bolts to fasten the portions thereof and the rail together. And another object is to provide a splice having means by which to clamp the rail sections together and which will provide considerable latitude of adjustment whereby the device can always be kept tight.

Having these and other objects in view, I will proceed to the description of the invention aided by the accompanying drawing in which:

Figure 1 is an end elevation of a rail and my improved splice both being shown with parts broken away. Fig. 2 is a plan of the splice and the rail, the latter being shown in horizontal section, and Fig. 3 is a plan of a wedge.

In Fig. 1 A indicates one of the rails, and in Fig. 2, both of the abutting rail ends are indicated by A and A'.

My splice consists first of a base portion or plate B as a support for the rails, there being an upturned flange at C which is a part of the said base and which is formed at one side thereof and overhangs the base of the rail, substantially in the manner shown, terminating in a vertical portion which lies firmly and snugly against the vertical web of said rail. The said vertical portion is provided on its inner surface with a series of lugs D corresponding in number and position to the usual bolt-holes in the ends of the rails and indicated by D'. E indicates a series of lugs or extensions integral with the said base and which are a part of and project beyond the flange C referred to, each being provided with a hole F for the reception of the usual spike, one

of which is shown in Fig. 1 at the left. The opposite edge of the base is provided with an integral upturned part G and an overhanging flange G¹ provided with a series of slots H, said slots lying perpendicular to the length of the rail; there being a corresponding series of slots in the base portion or plate B indicated at J these being just below those at H just mentioned.

Preferably in order to more easily make the base B, its flange C and the flange G¹ as one member or unit, it is formed between rolls and during one of the steps of this process the lugs or extensions E are partially punched from the metal and bent out to the position shown and provided with the holes F described above.

K indicates a plate lying against the vertical web of the rail opposite the vertical portion of the flange C described, this said plate having a downwardly inclined longitudinally disposed flange L, the purpose of which will presently appear, and the plate is provided with lugs K¹ corresponding to the lugs D and the holes D¹ of the rails.

M is a plate made in the form of a wedge as shown in Fig. 3, that is to say it is narrower at one end than at the other and is bent along its length so as to produce, in use, a horizontal extension N to enter the recess beneath the overhanging flange G¹ of the base and bear against the portion G. The opposite edge of the plate is preferably beveled as shown in Fig. 1 so as to lie against the plate K, the resulting point lying within the recess created beneath the flange L as shown. The distance between the one end of the plate K and the said portion G of the base is preferably a little less than that of the other end of the splice, though this is not shown, so that the wedge M will fit between the said plate K and said portion G the full length of the splice so that in use there will be no shake in the parts whatever. This plate M in the extension N, is provided with a series of slots O, the edges of which are "stepped" as shown in Figs. 2 and 3, that is to say, these slots, which lie parallel to the slots H, J, are so formed that their edges, as clearly shown in said Fig. 3, are notched in such a manner as to provide a series of steps each of which is in advance of the one before it, the slot therefore consisting of a series of communicating holes any of which is adapted to receive a spike P, Fig. 1.

When the wedge is driven into place the vertical portion of the part C of the splice and the plate K will be brought toward each other thus firmly clamping the web of the rail since the part N of the wedge M is in control of the base B, and of which the said part C is a portion as already described. The wedge having been entered, while having substantially the position shown in Fig. 2, the usual holding spikes, mentioned, are inserted through the slots H, J, for instance in those portions indicated by *a*. As the splice becomes slightly worn, due to continual passage of trains over it, the wedge can be drawn up or tightened by removing the spikes and placing them at a different position, for instance in the parts of the slots *b* and by tightly driving them into place they will shift the wedge to the left as viewed in Fig. 2 by bearing against one of the steps described, resulting in the movement of the wedge as described and the consequent tightening of all the parts of the splice; the lugs D and K¹ already mentioned preventing movement of the parts and without the necessity of using bolts through the web of the rail.

All of the parts of my splice can be formed between rolls and the slots in the members can be afterward formed by punching so that there is little other machine work necessary except, perhaps, the fixing of the lugs D and K¹ in their respective parts. The series of steps C in the wedge M may be of such a number as to provide the needed adjustment of the said wedge for the entire life of the splice; the number of slots used being more or less than the number shown and providing a great number of adjustments and the greater the number of these adjustments the finer those adjustments may be. And although not shown, wedge-bolts may be used in place of the spikes which may be drawn down into the slots to obtain the desired adjustments.

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

1. In a rail-splice the combination of a base portion to receive and carry a rail and having a part at one side to receive the rail, and having also an overhanging part at the opposite side of the rail spaced from the latter, a wedge adapted to enter between the overhanging part and the rail adapted to hold the rail against the first described part and adapted to be shifted longitudinally, there being a slot in the overhanging part lying substantially at right angles to the rail, the wedge having a series of steps each lying in a different plane but all substantially parallel to the longest measure-

ment of the slot, and a member extending through the slot, one of its sides engaging one of the walls of said slot, its opposite side engaging one of the steps of the wedge.

2. In a rail-splice the combination of a base portion to receive and carry a rail and having a part at one side to receive the rail, and having also an overhanging part at the opposite side of the rail spaced from the latter, a wedge adapted to enter between the overhanging part and the rail adapted to hold the rail against the first described part and adapted to be shifted longitudinally, there being a series of slots in the overhanging part lying at right angles to the rail, there being a series of slots in the wedge corresponding with the first said series and each having one of its walls "stepped", and a member to enter one of the slots of the said part and one of the wedge and adapted to bear upon one of the walls of one and the opposite wall of the other of said slots.

3. The combination in a rail-splice, of a base plate to receive and support the rail and having an upturned portion at one side to engage the vertical portion of said rail, and having its opposite side extending beyond the opposite edge of the rail-base and provided with an upturned portion, a member lying against the vertical portion of the rail at that side, and a longitudinally adjustable wedge interposed between the member and the last named upturned portion, the wedge and the base each having a substantially corresponding slot to receive a tightening member, the slot in the said wedge having an offset portion adapted, in conjunction with the said tightening member and the base, to positively adjust the wedge in the direction of its length.

4. The combination in a rail-splice, of a base plate to receive and support the rail and having an upturned portion at one side to engage the vertical portion of said rail, and having its opposite side extending beyond the opposite edge of the rail-base and provided with an upturned portion, a member lying against the vertical portion of the rail at that side, and a longitudinally adjustable wedge interposed between the member and the last named upturned portion, the wedge and the base having substantially corresponding slots to receive a tightening member, the slot in said wedge having a series of offset portions substantially as shown.

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

EVERETT N. TUCKEY.

Witnesses:

L. M. THURLOW,

E. J. ABERSOL.