

A. E. HAUCK.
 HEATER FOR REMOVING TIRES.
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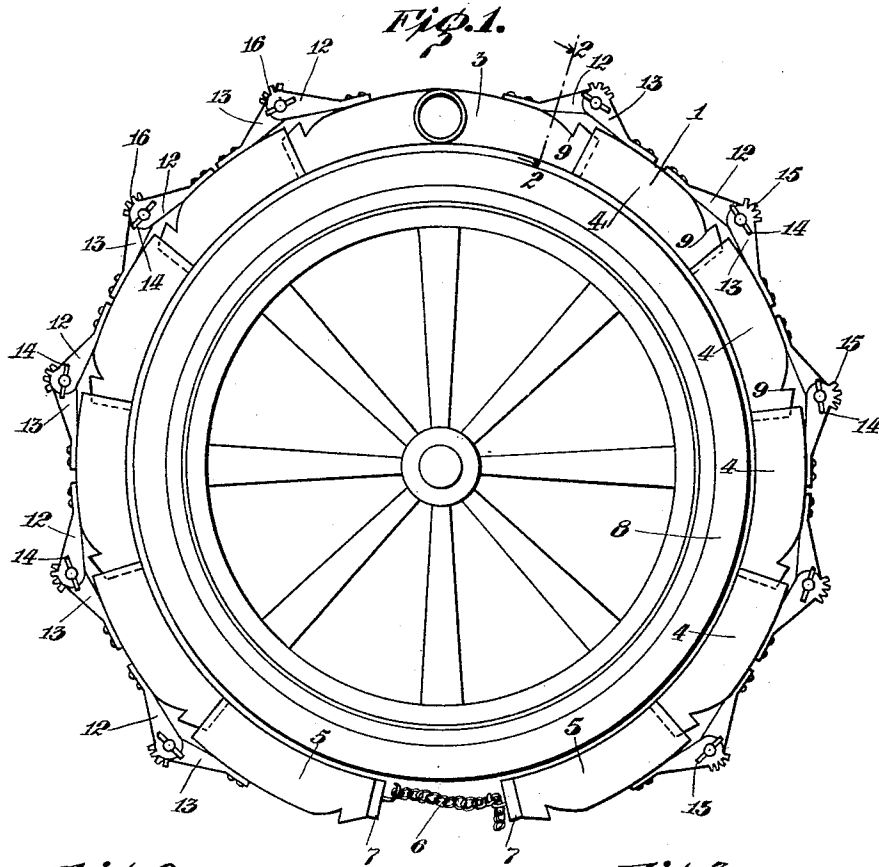


Fig. 2.

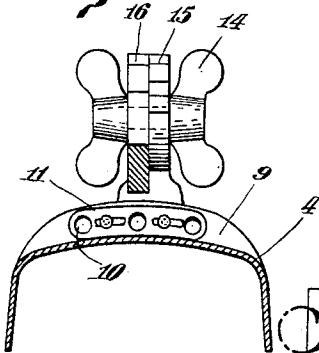


Fig. 3.

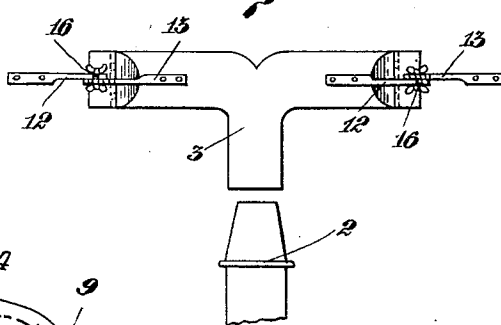
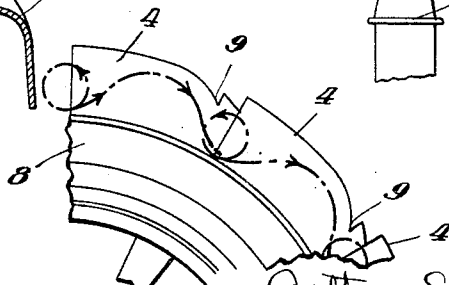


Fig. 4.



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HEATER FOR REMOVING TIRES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR E. HAUCK, a citizen of the United States, and a resident of the city of New York, county of Kings, and State of New York, have invented a new and useful Improvement in Heaters for Removing Tires, of which the following is a specification.

The object of my invention is to provide a device of this class which can readily be applied to the tire of any locomotive wheel so that the tire may be heated preparatory to being removed regardless of the diameter of the wheel, and a further object is to provide a device which can be used with a minimum of cost and trouble. These and other objects are accomplished by my invention, one embodiment of which is hereinafter set forth.

For a more particular description of my invention, reference is to be had to the accompanying drawings, forming a part hereof, in which—

Figure 1 is a side elevation of my heater applied to a locomotive wheel. Fig. 2 is a sectional view, taken on the line 2—2 of Fig. 1, looking in the direction of the arrows. Fig. 3 is a plan view of a portion of the heater. Fig. 4 is a longitudinal section of some of the sections, the line with arrows indicating the path of the flame.

Throughout the various views of the drawings, similar reference characters designate similar parts.

My improved heater 1 is provided with any suitable torch burner 2 which sends a flame of sufficient intensity into the heater to secure the desired results. The flame which issues from the burner 2 passes into a T 3 where it is divided into two substantially equal parts, one going to the right and the other to the left through various overlapping sections 4 to the two end sections 5 which are preferably connected by a hook and chain connection 6, or by any other suitable means. The end sections differ from the other sections because they are closed at the ends 7, as indicated in Fig. 1. As the wheels 8 have varying diameters, according to the locomotive on which they are used, it is obvious that the curvature of the heater 1, as well as the length of its respective arms, must be varied to correspond to the different diameters. This variation is brought about in the following way: Each of the sections 4 is open on the face

next the wheel 8 and at its end removed from the T 3 is provided with a suitable dent 9, which is perforated at 10 and provided with a damper 11 so that the air can enter through each indentation and the amount which enters can be regulated by the damper. These sections 4 are made of suitable and convenient lengths, say about nine inches, the precise dimensions not being essential, but the one given is preferred. Each section 4 has two brackets 12 and 13 riveted or otherwise secured thereto, the bracket 12 being at one end and the bracket 13 at the other. These brackets are so arranged and disposed that the bracket 13 of one is clamped to the bracket 12 of the next by a suitable set screw 14, and projecting from each bracket 13 are a number of projections 15 each one of which is marked with a number corresponding to the diameter of a locomotive wheel to which the device may be applied. Each bracket 12 has a single projection 16 adapted to register with one of the projections 15 so that when the sections 4 are assembled each one may be given a suitable angular relation to its neighbors, so that they may be placed right over the tread of the wheel without any adjustment whatsoever. The T 3 is open at the part over the tread of the wheel 8, the same as the sections 4, and is also provided with perforations 10 on the indentations 9 the same as the sections 4 and 5, but only one bracket 12 is used on each branch of the T 3. The sections 5 also have only one bracket 13.

In view of the foregoing, the use of my improved apparatus will be readily understood. The parts are assembled as above described, one or more sections 4 being omitted or added as may be desirable, so as to give the correct length and one is adjusted with regard to its neighbors so as to have these sections lie close to the tread of the wheel. The torch 2 is then applied, as above described and a flame is blown into the T 3, and is divided by this T into two branches of substantially equal volume, one going to the right and the other to the left. The indentation 9 of each branch directs the flame against the tread of the wheel and air going through the openings 10 joins with the flame and causes the same to form a spiral loop and maintain its intensity and then proceed into the next section where the action is repeated, and this is continued un-

til the flame reaches the end 7. The path of the flame is shown by the full line in Fig. 4 where the arrows indicate the direction of movement. The spiral loop is caused by the
5 deflecting action of the indentations 9 which throw the flame against the tread 8 of the wheel. It then is deflected upwardly and goes into the recess just in the rear of the perforations which are more or less closed
10 by a damper 11, where air is added to facilitate combustion, but not enough to interfere with the spiral action of the flame. The constant play of the flames on the tread
15 of the wheel 8, as above described, heats the tire and expands the same so that it can readily be removed.

While I have shown and described one embodiment of my invention, it is obvious that it is not restricted thereto, but is broad
20 to cover all structures that come within the scope of the annexed claims.

What I claim is,

1. In a device of the class described, a pair of sections adapted to cover a portion
25 of a tread of a wheel, brackets on each of

said sections and means for clamping said brackets together, means on said brackets for indicating the proper angular relation between the two sections, so that this relation may be modified for wheels of different
30 diameters, and said sections may be used on wheels of different diameter.

2. In a device of the class described, a section having a notch, perforations in the notch, and a damper over the perforations
35 so that a flame may be caused to lick the tread of a wheel with a spiral movement when the section is in use.

3. In a device of the class described, sections with notches and means for holding
40 said sections together, and dampers in said notches so that when the device is in use a flame will be deflected against a tire with a curved course and fresh air admitted to the flame through the dampers.

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Witnesses:

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