May 1, 1928.

1,668,017

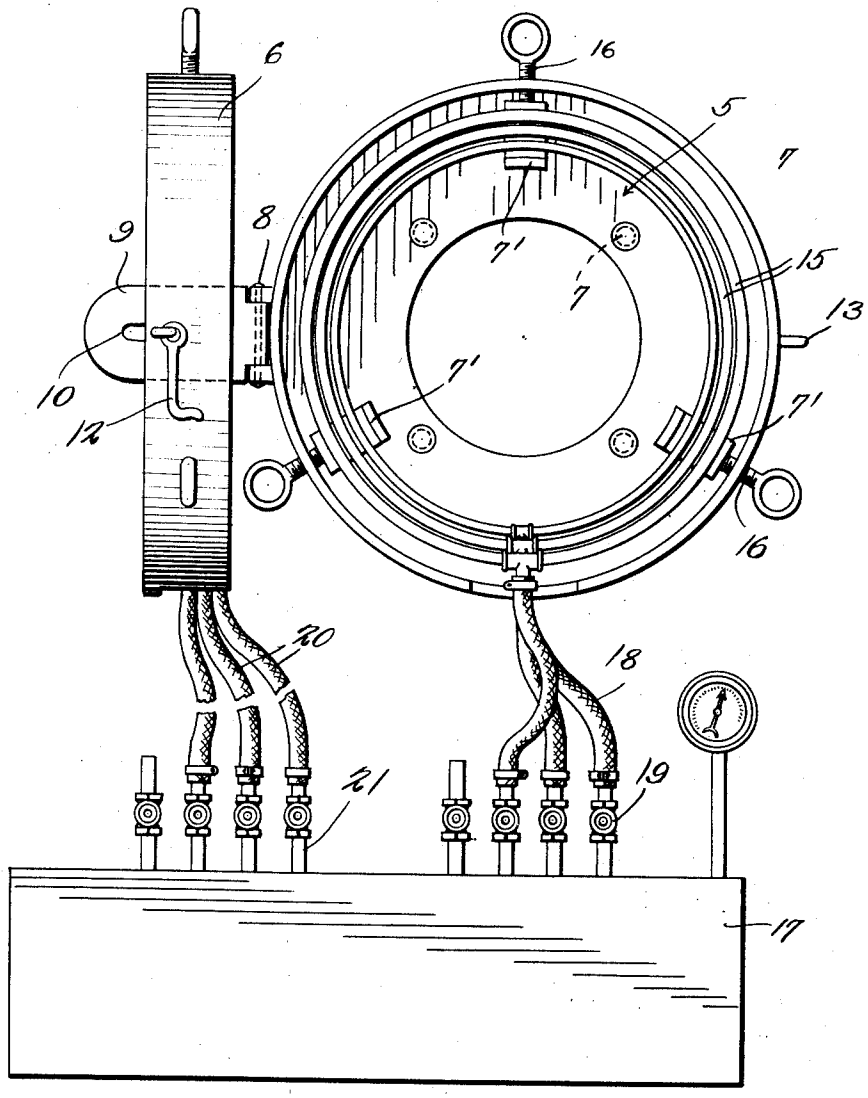
W. P. HENSON

MOLD

Filed Aug. 17, 1927

2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

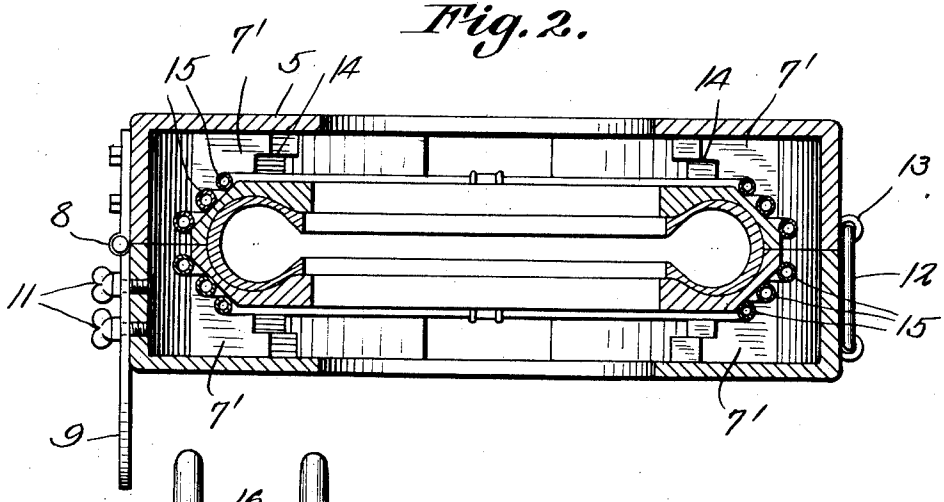


Fig. 4.

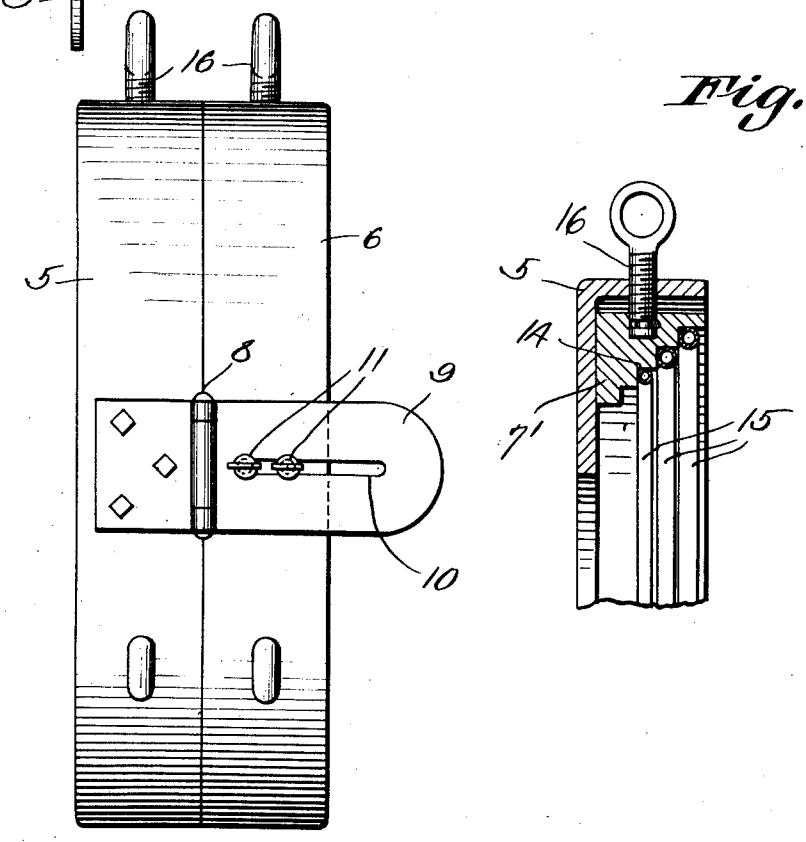


Fig. 3.

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Patented May 1, 1928. 1,668,017

UNITED STATES PATENT OFFICE.

WILLIAM P. HENSON, OF SACRAMENTO, CALIFORNIA.

MOLD.

Application filed August 17, 1927. Serial No. 213,630.

The present invention has reference to a mold especially designed for use in retreading pneumatic tires or the like, the primary object of the invention being to provide a mold of the adjustable type so constructed that high pressure tires as well as low pressure tires or balloon tires may be treated by the mold.

A further object of the invention is to provide a device of this character embodying hingedly connected sections and adjustable means for adjusting one section with respect to the adjacent section.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is an elevational view showing the mold in its open position to receive a tire.

Figure 2 is a sectional view through the mold.

Figure 3 is an elevational view of the mold in its closed position.

Figure 4 is an enlarged fragmental detail view of one section of the mold and matrix.

Referring to the drawings in detail, the mold embodies a pair of cooperating sections 5 and 6, the section 5 being designed to be secured to a supporting structure such as a wall or the like, securing screws being passed through the openings 7, to secure the mold to the wall.

The section 6 is connected with the section 5 by means of the hinge 8 which includes an elongated member 9 formed with an elongated opening 10 in which the bolts 11 operate to adjustably connect the sections.

The opposite sides of the sections are connected by means of the hook 12 that passes into the eye 13 of the adjacent section. As clearly shown by Figure 4, the steam jacket in which the matrix is positioned, embodies a plurality of sections 7′ having their inner surfaces constructed to define shoulders 14 on which the pipe coils 15 rest when they are in use to supply heat to the matrix. Adjusting screws 16 extend through the sections and have their inner ends connected with the steam jacket sections so that by rotating the adjusting screws 16, the sections of the steam jacket may be moved toward or away from each other to properly adjust them.

Associated with the mold, is a steam chest 17 which receives steam from a suitable source of supply and supplies the pipes 18 which pipes are connected to the pipe coils 15 of one section, there being provided valves 19 for controlling the passage of steam to the pipe coils.

Steam is supplied to the steam jacket held within the section 6, through the hoses 20 which connect with the pipe 21, it being understood that each hose connects with a pipe coil supported within the section 6.

Due to the construction of the device it will be seen that the pipe coils may be positioned for heating a narrow matrix such as used in retreading high pressure tires, and should it be desired to retread low pressure tires such as balloon tires which are considerably wider than the high pressure tires, additional coils may be supplied and positioned on the shoulders of the members 14, it of course being understood that additional hoses may be connected with these coils to supply steam thereto for heating the matrix.

In the use of the device, the appropriate number of pipe coils are positioned on the members 14, which pipe coils are connected with the steam chest through hoses 20. The tire to be repaired is now positioned in a matrix of the proper size to fit within the coils and the matrix together with its tire positioned within the mold and the sections of the mold brought together and locked.

The valves controlling the passage of steam through the pipes are now opened allowing steam to pass into the pipe coils to heat the matrix and tire supported therein.

When the vulcanizing has been accomplished the mold may be readily opened to release the tire and matrix held therein.

I claim:

1. A tire retreading mold including hingedly connected sections, means for adjusting one section with respect to the adjacent section, a plurality of supporting members

adjustably held within the sections, coils of steam pipes removably supported by the supporting members and adapted to engage a matrix supported therein, and means for supplying steam to the pipe.

2. A tire retreading mold including a sectional housing, supporting members adjustably mounted within the sections of the housing, said supporting members having shoulders formed in step-like relation with each other, pipe coils positioned on the shoulders, pipes for supplying steam to the coils, a matrix positioned within the mold and contact with the pipe coils to receive heat therefrom, and means for supplying steam to the coils.

3. A tire retreading mold including hingedly connected sections, supporting members adjustably held within the sections, and having step-like inner surfaces defining shoulders, pipe coils removably mounted within the sections, and resting on the shoulders, pipes leading to the coils, and means for supplying steam to the pipes.

4. A tire retreading mold including hingedly connected sections, coils removably supported within the sections, means for supporting the coils in staggered relation with respect to each other, a sectional matrix supported within the mold and contacting with the coils, and means for supplying steam to the coils to heat the matrix.

5. A tire retreading mold including hingedly connected sections, a plurality of independent coils supported within the sections, said coils being arranged to conform to the shape of a matrix positioned within the casing, and means for supplying steam to the coils to heat the matrix.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

WILLIAM P. HENSON.