

(No Model.)

H. CAMPBELL & J. MARR.
COOPER'S HOOP DOG.

No. 544,843.

Patented Aug. 20, 1895.

Fig. 1.

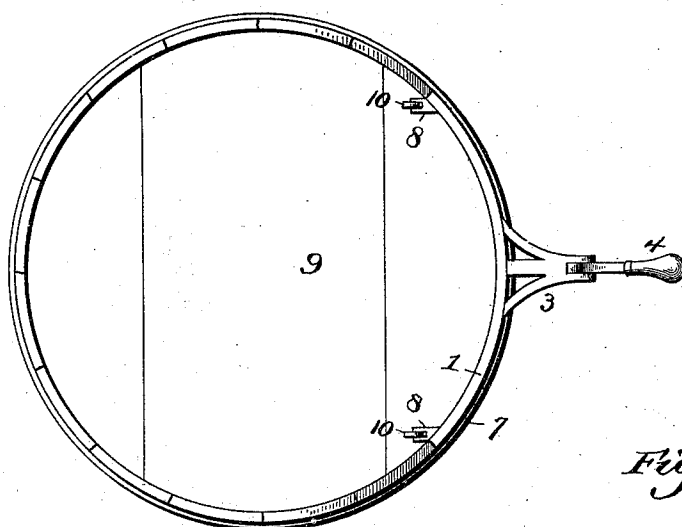


Fig. 2.

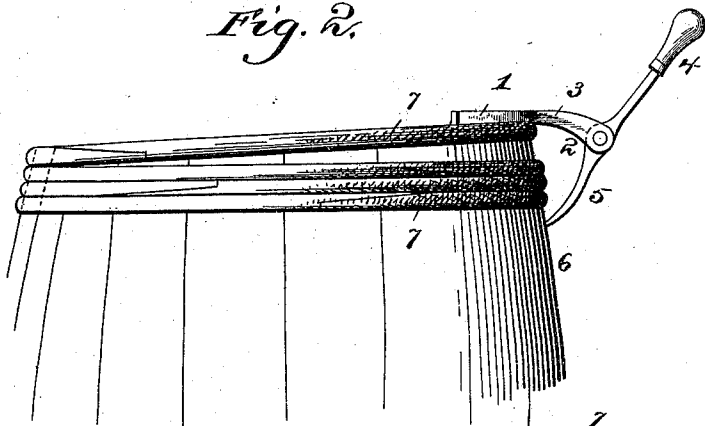


Fig. 3.

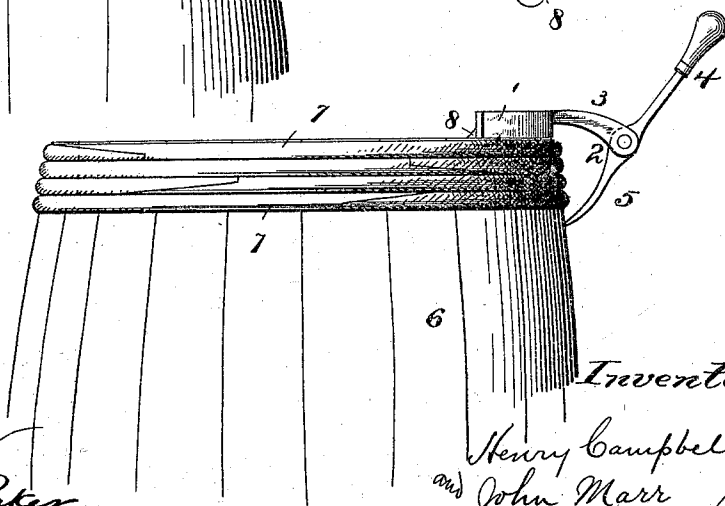
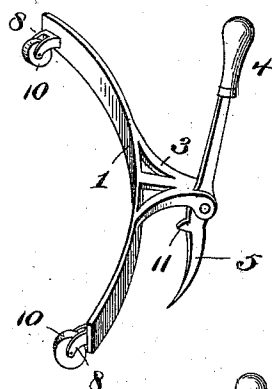


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY CAMPBELL AND JOHN MARR, OF BALTIMORE, MARYLAND.

COOPER'S HOOP-DOG.

SPECIFICATION forming part of Letters Patent No. 544,843, dated August 20, 1895.

Application filed June 12, 1893. Serial No. 477,262. (No model.)

To all whom it may concern:

Be it known that we, HENRY CAMPBELL and JOHN MARR, citizens of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Coopers' Hoop-Dogs; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to devices by which the hoops of barrels may be stretched and drawn in proper position over the ends of the staves after the head has been inserted in place, in case the end of the barrel in question is to be closed, and it is the object of our improvement to enable this operation to be more accurately and quickly performed than heretofore, with the result of economy in the manufacture.

Our invention comprises a means for engaging the hoop to be applied for a certain portion of its circumference, and a power device by which the said hoop-engaging means may be actuated to stretch and draw the hoop into place.

In order to make our invention more clearly understood we have shown in the accompanying drawings means for carrying the same into practical effect without limiting the improvement in its useful applications to the particular construction, which, for the sake of illustration, we have delineated.

In said drawings, Figure 1 is a plan view showing the upper end of a barrel and a hoop-dog embodying our invention applied thereto for putting in place the hoop. Fig. 2 is a side elevation of the same. Fig. 3 is a side view showing the device in its final position when the hoop has been thereby completely applied. Fig. 4 is a perspective view of the hoop-dog. In this latter view a slightly-different form of hoop-dog is illustrated.

Referring to the drawings, 1 indicates the hoop-engaging means, consisting in the construction illustrated of a metallic arch, of iron or steel, adapted to extend for, say, one-fourth or one-fifth, or other suitable proportion, of the circumference of the hoop in connection with which it is proposed to use the device. This arch is provided with a bracket arm or arms 3, extending outward from its upper edge,

so as to permit the hoop to rest upon the arch beneath such bracket or brackets. The latter terminate in a point of attachment or bearing 2, to which is adapted to be pivotally-connected the power or actuating device. The latter consists preferably of a hand-lever 4 adapted at its upper end to be grasped by the operator and drawn outward, while its lower end forms an arm 5, adapted to bear against the outer side of one of the staves of the barrel and serve as a fulcrum during the operation of the hoop-dog. The handle 4 5 is thus a lever of the second order.

In using our new hoop-dog the operation is as follows: The staves of a barrel (indicated in the drawings at 6) having been assembled or set up, one of the hoops 7 is placed with its inner surface at one side in contact with the outer face of one side of the barrel, and the arch 1 or equivalent hoop-engaging means is placed in contact with the inner surface of the other or opposite side of such hoop. The inner face of the latter side of the hoop will then be, if the hoop be of the proper size for the barrel, slightly within and above the line of the outer face of the barrel. The hand-lever 4 is then drawn outward until the lower arm 5 comes in contact with the outer face of the barrel, and such outward pull is continued until the arch 1 has been brought to such a position that its outer surface is substantially flush with the outer surface of the barrel or of the staves thereof. The lever 4 is held for a moment in this position until the hoop 7 can be at its elevated side, where it is engaged by the arch 1, as above described, driven or forced downward so as to pass from the outer surface of the arch to the outer surface of the barrel. As soon as the hoop has thus obtained a firm engagement with the barrel the hoop-dog may be removed and the hoop 7 will be forced or driven down by the usual appliances to the desired distance to draw the staves firmly together. Another hoop or hoops may be then applied if necessary or desirable. If the other end of the barrel is to be closed the barrel is inverted, windlassed, and the hoop applied to the said other end in the manner already above described.

In order to keep the arch 1 at the proper height, so that its bottom will be level with the top edge of the staves, we prefer to apply

to the said arch one or more feet or rests 8, which will be adapted to rest upon the head 9 of the barrel and support the dog in the described position. In order to prevent the said
5 feet from catching upon the barrel-head, in any recess thereof, or in any crack between the divisions or sections of which the head is ordinarily composed, we prefer to mount in the lower ends of the feet rollers 10, which
10 will facilitate the operation of the device. We may also provide the arm 5 with a shoulder or rest 11, which will be adapted to rest upon the upper edge of the barrel and support the hoop-dog while the hoop is being applied to the arch 1.
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By the use of our invention much time may be saved in the hooping of barrels by hand, and the work will be more neatly and accurately performed.

20 Having thus described our invention, what we claim is—

1. In a hoop-dog the combination with the arch having means adapted to rest upon a barrel head, of a lever pivotally connected
25 with said arch at the outer side thereof and adapted to engage the outer side of the barrel or equivalent fixed support for stretching and bringing the hoop into place, substantially as set forth.

30 2. In a hoop dog the combination with the arch 1 having feet provided with rollers, of

the brackets 2 connected with said arch, and the lever 4 having the arm 5 and the shoulder or rest 11, substantially as set forth.

3. In a hoop-dog the combination with an arch adapted to engage the hoop, a lever pivotally connected with said arch and situated at substantially right angles to the direction of movement thereof, and means for supporting the arch upon and above the barrel head
40 to compel it to move in a direction parallel thereto, substantially as set forth.

4. In a hoop-dog the combination with the arch, and means for forcing the same outward, comprising a lever pivoted at the convex side of the arch and adapted to bear upon the side of the barrel, of the supports extending inwardly from and below the arch and having rollers 10, substantially as set forth.
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5. In a hoop dog the combination with the arch provided with means for supporting it upon the barrel head, of the actuating lever connected with the arch and having the shoulder or rest 11, substantially as set forth.

In testimony whereof we affix our signatures in the presence of two witnesses.
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HENRY CAMPBELL.
JOHN MARR.

Witnesses:

FELIX R. SULLIVAN,
FELIX R. SULLIVAN, Jr.