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HOOP REMOVING TOOL.

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1,357,533.

Patented Nov. 2, 1920.

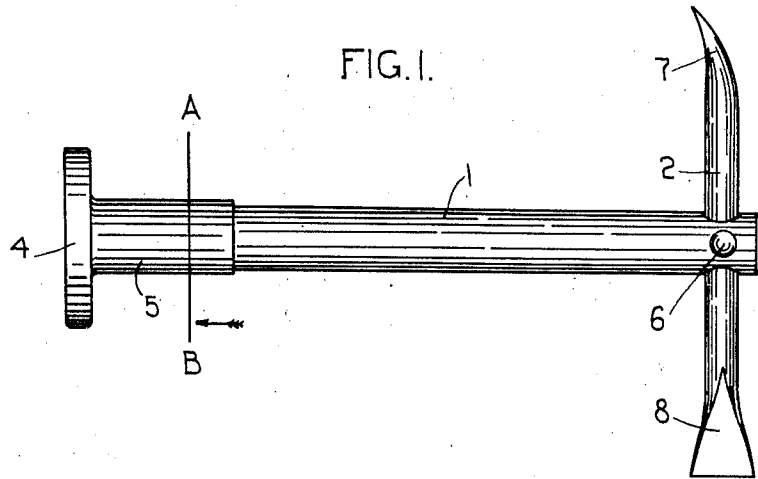


FIG. 2.

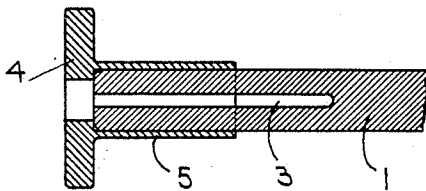
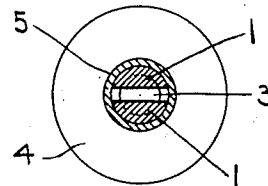


FIG. 3.



WITNESSES.

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HOOP-REMOVING TOOL.

1,357,533.

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To all whom it may concern:

Be it known that we, WILLIAM ALFRED VANNAM-SMITH and THOMAS JOHN MAYNARD, subjects of the King of Great Britain and Ireland, respectively residing at Caversham, near Reading, in the county of Berks, and Gravelly Hill, Birmingham, in the county of Warwick, England, (whose post-office addresses are respectively "Conway," Kidmore road, Caversham, and 59 Hunton road, Gravelly Hill, Birmingham aforesaid,) have invented certain new and useful Improvements in Hoop-Removing Tools; and we do hereby 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.

This invention consists in an improved tool for removing or stripping hoop-iron or other metal binding strips from packing cases and the like.

The tool according to this invention is such that the binding strips can be easily and quickly removed and the nails, holding such strips to the case, withdrawn, said tool comprising a rotatable bar or rod having a slot extending through a suitable part thereof and adapted to receive the end of the binding strip, and provided with an operating handle, the strip being wound around the bar as the tool is revolved in the action of stripping the case as hereinafter described.

Further according to this invention the slot in the above-mentioned bar is opened at one end so that when a binding strip has been wound upon the bar, in removing it from the case, it can easily be slipped off and removed from the bar without being unwound. Further, in order to facilitate the withdrawal of the nails holding the binding strip to the case, the slotted end of the bar is provided with a removable enlargement, preferably in the form of a wheel or roller, the arrangement being such that when, in the stripping action, a nail is encountered the handle end of the tool can be lifted to a suitable extent and the enlargement will provide a fulcrum. After the nail has thus been lifted or levered up the rotary motion of the tool is continued, thus continuing the winding of the strip on to the tool.

The handle of the tool according to this invention, which is arranged at or adjacent

the end of the rotatable bar or rod opposite that in which the slot is located, may be provided at one end with a nail-extracting claw or part and at the other end with a chisel or case-opening part, as hereinafter described.

The invention is illustrated by the accompanying drawings, in which:—

Figure 1 is a plan of a tool according to this invention;

Fig. 2, a sectional elevation of a portion of the tool shown in Fig. 1; and

Fig. 3, a cross-section taken on the line A—B, Fig. 1, and looking in the direction of the arrow.

Referring to the drawings, 1 is a cylindrical bar or rod provided at one end with a handle 2 and being slotted for the required distance at its other end, 3 being the slot which is opened-ended as shown. 4 is a wheel, disk, or roller, and 5 is a sleeve or tubular projection permanently secured to or formed integral with the part 4. The slotted end of the bar 1 takes into the sleeve 5, the slot 3 being of such length as to leave the required amount exposed so as to receive the end of the binding strip. The handle 2 in the construction shown is passed through a hole in the bar 1 and secured by a rivet such as 6, the ends 7 and 8, or one of them, being shaped after the handle has been passed through the hole in the bar 1, the end 7 being shown as a well-known nail-extracting claw and the end 8 as a well-known chisel or case-opener. The handle might of course be otherwise secured to the bar 1 so as to be capable of rotating it, as by providing an angular hole in the handle and an angularly formed end on the bar and riveting over the end of the bar when the parts have been assembled.

To strip or remove the binding strip from a packing case, the end of the strip is first pried up to the required extent and inserted in the slot 3. The tool is then rotated by the handle 2 so that the strip becomes wound upon the bar 1. When, in the stripping action, a nail is reached and extra leverage is required to extract it, the handle end of the tool is lifted up, with the wheel 4 as a fulcrum resting on the case, and the nail will thus be withdrawn with ease by the upward movement given to the strip; and the rotary motion of the tool can then be continued and the stripping proceeded with.

When the strip has been removed from the case, it can be readily removed from the tool. The wheel 4 and sleeve 5 are first removed, and the wound-up strip can then be drawn off the end of the bar 1 without unwinding, as the end of the strip which lies in the slot can pass out through the open end of the slot.

If desired the interior surface of the sleeve 5 may be tapered slightly toward the wheel end, or the end portion of the bar 1 may be slightly tapered, so that the arms of the bifurcated end of the bar 1 when inserted in the sleeve will be forced slightly toward one another and thus exert pressure outwardly with a spring effect against the inner surface of the sleeve and tend to hold the parts in engagement. Further, if desired, means may be provided to prevent the wheel 4 and sleeve 5 rotating on the bar 1, and such means may

consist of lugs or ribs on the inner surface of the sleeve 5 adapted to take into the slot 3.

What we claim as our invention and desire to secure by Letters Patent is:—

A hoop removing tool, comprising a bar 25 provided with a cylindrical end portion having a longitudinal slot in it which is open at one end, and a wheel provided with a sleeve which is slidable longitudinally and revoluble on the said cylindrical end portion 30 and which covers the open end portion of the slot leaving its other end portion unobstructed.

In testimony whereof we affix our signatures, in presence of two witnesses.

WILLIAM ALFRED VANNAM-SMITH.

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Witnesses:

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