3 Sheets--Sheet 1

F. VAN PATTEN.

Dies for the Manufacture of Fifth Wheel Heads.

No. 141,682. Patented August 12, 1873.

Fig. 1

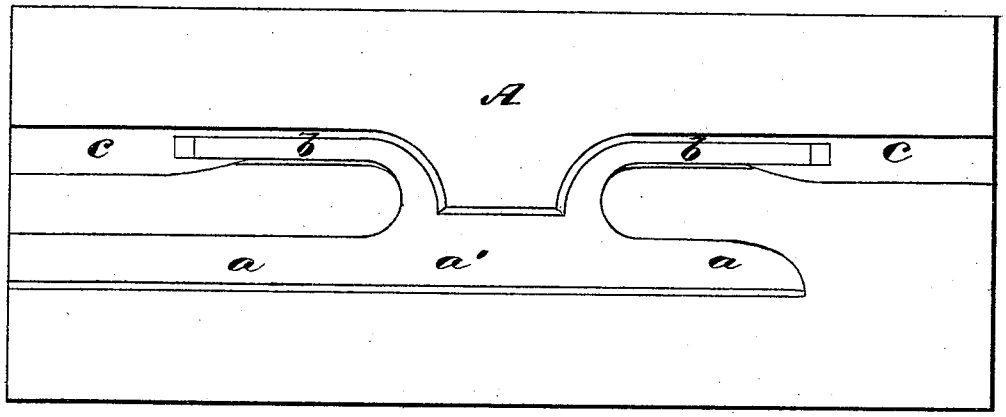


Fig. 2

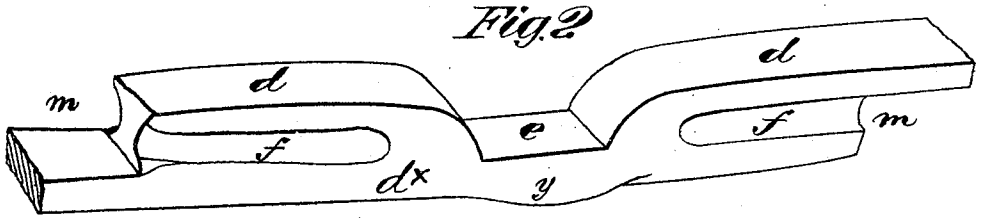


Fig. 3

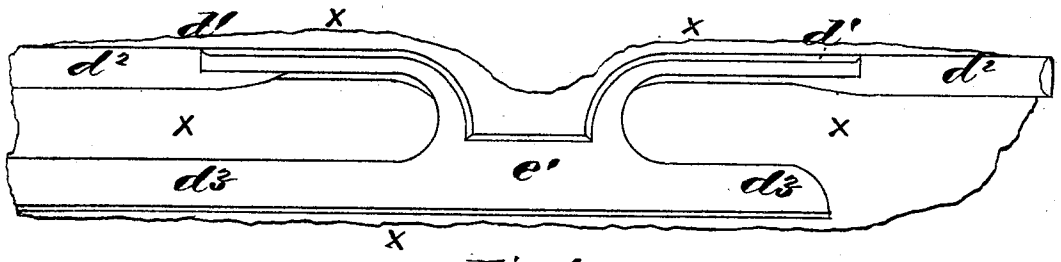
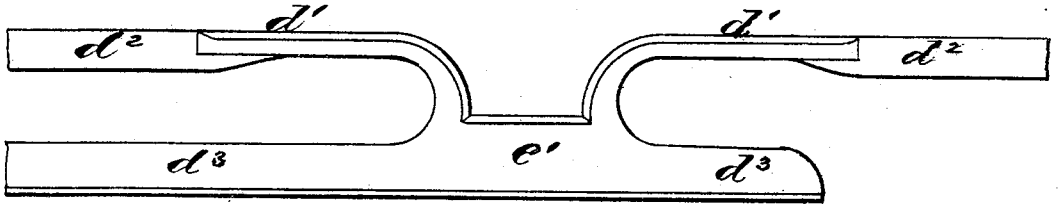


Fig. 4



Witnesses.
R. Campbell
J. N. Campbell

Inventor
Frederick Van Patten
by
Munn, Fenwick & Semmes.

3 Sheets--Sheet 2

F. VAN PATTEN.

Dies for the Manufacture of Fifth Wheel Heads.

No. 141,682. Patented August 12, 1873.

Fig. 5

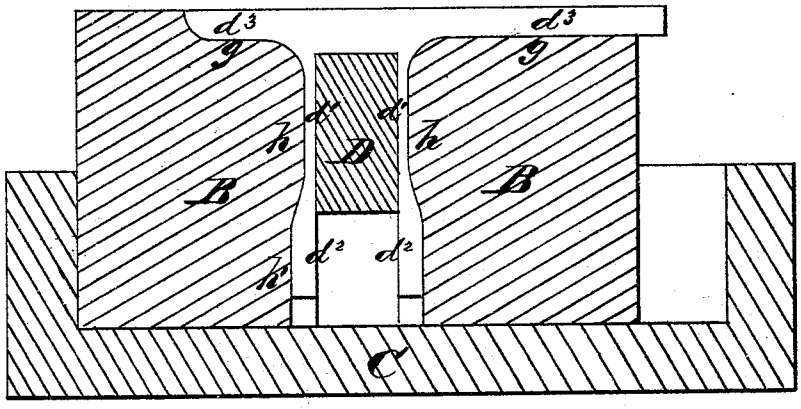


Fig. 6

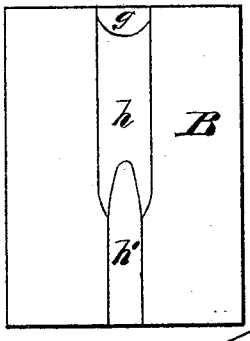


Fig. 7

Witnesses.
R. Campbell.
J. N. Campbell

Inventor
Frederick Van Patten
by
Munn, Pennie & Lemmon

3 Sheets--Sheet 3

F. VAN PATTEN.

Dies for the Manufacture of Fifth Wheel Heads.

No. 141,682. Patented August 12, 1873.

Fig. 8

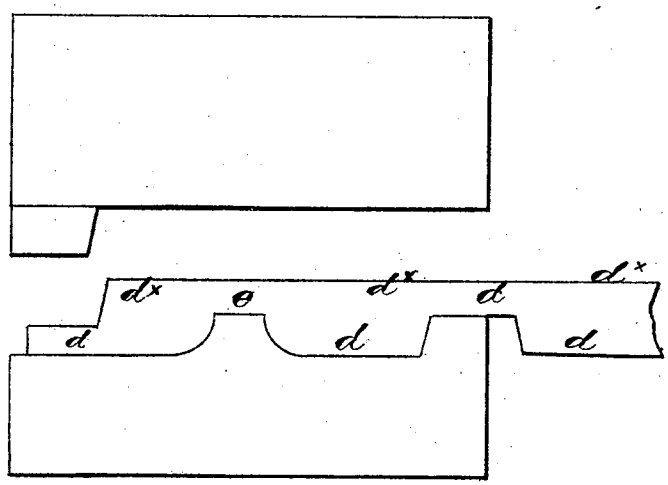
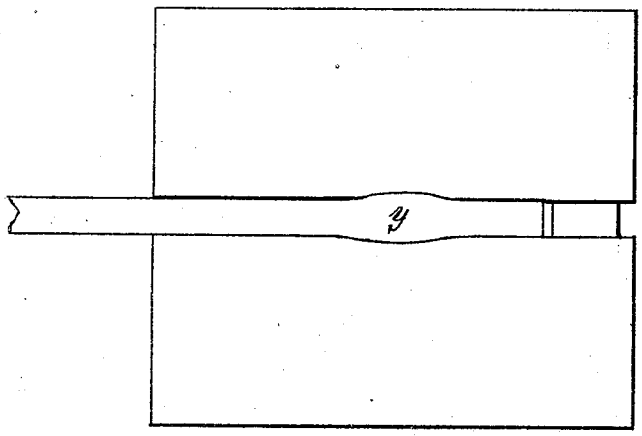


Fig. 9



Witnesses.
R. F. Campbell

Inventor
Frederick Van Patten
by Munn & Dewey & Co.

UNITED STATES PATENT OFFICE.

FREDERICK VAN PATTEN, OF AUBURN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF AND E. D. CLAPP, OF SAME PLACE.

IMPROVEMENT IN DIES FOR THE MANUFACTURE OF FIFTH-WHEEL HEADS.

Specification forming part of Letters Patent No. **141,682**, dated August 12, 1873; application filed February 28, 1873.

F.

To all whom it may concern:

Be it known that I, FREDERICK VAN PATTEN, of Auburn, in the county of Cayuga and State of New York, have invented an Improvement in the Manufacture of Fifth-Wheel Heads for Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1, Plate 1, is a face view of one of the die-sections for shaping the blank. Fig. 2, Plate 1, is a perspective view of the "break-down" or blank for the die. Fig. 3, Plate 1, is a view of the second formation of blank with its fins. Fig. 4, Plate 1, is a view of the second formation of blank with the fins removed. Fig. 5, Plate 2, shows, in section, the vertically-divisible parts of the dies in which the blank of Fig. 4, Plate 1, is brought to the shape represented by Fig. 7. Fig. 6, Plate 2, is a vertical face view of one of the dies of Fig. 5. Fig. 7, Plate 2, is a perspective view of the improved wheel-head. Figs. 8 and 9 show the dies for making the blank of Fig. 2, but not creasing it.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to produce, by means of dies, certain blanks hereinafter explained, such blanks to be used in the construction of an article known in carriage hardware as a fifth-wheel head—that is to say, a blank for the formation of the clip and section of the bottom fifth-wheel of a vehicle. The nature of my invention consists, first, in a peculiar manner of forming dies with recesses, for the purpose hereinafter shown; second, in a peculiar construction of dies for forming the primary blanks which are operated upon by the said recessed dies, as will be hereinafter shown; third, in a combination of the three sets of dies hereinafter described, whereby the article, Fig. 7, is produced.

The following description of my invention will enable others skilled in the art to understand it.

On Plate 1 of the accompanying drawings I have represented one-half of the die to which the blank of Fig. 2 is subjected for the production of the blank represented by Fig. 3. The primary blank, represented by Fig. 2, is produced from a rectangular bar of metal by means of the dies shown on Plate 3, Figs. 8 and 9, by first subjecting the bar edgewise between the die-sections, as shown by Fig. 8, then turning the bar one-quarter around, and subjecting it to the action of another portion of the same dies, which leave the swell y in it. The creases $f\,f$ are subsequently produced by a proper tool. Thus produced, the blank presents a body, e, two portions, $d\,d$, notches at $m\,m$, and a base portion, $d^{\times}$. Out of the portions $d\,d$ I form the clip-ends $d^{1}\,d^{1}$ on each side of the body e', and out of the straight portion $d^{\times}$ I form the fifth-wheel section d^{3}, which terminates in front at the extremity of the shortest portion, and to the longest portion of which a half-round bar is to be welded, which forms, when properly curved, the back part of the bottom fifth-wheel. When the primary blank of Fig. 2 is adjusted on the base section of the die A, over the recesses a, a', b, and c therein, and the upper corresponding section of the die is brought down with great force upon the blank, it is forced into the shape represented by Fig. 3, the surplusage of metal being forced out into fins x, as represented by this figure. After this operation the fins x are trimmed off, as shown by the blank of Fig. 4. This blank is heated, and its clip-ends are turned at or nearly at right angles to the fifth-wheel section d^{3} by hand, after which it is adjusted between two die-sections, B B, and on an intermediate gage-block, D, and struck a heavy blow on top, which finishes the article, as shown by Fig. 7. The two die-sections B B are laterally movable in a box, C, for the purpose of readily introducing and removing the blanks, and are firmly held together, when a blank is between them, by any suitable contrivance. The recesses g in the tops of the die-sections finish the bar d^{3}; the recesses h in the vertical faces of these die-sections finish the outer sides of the flat portions of the clip-ends, and the grooves h' below the recesses h receive the round ends d^{2} of the clip. The block D is supported on top of the box C between the die-sec-

tions B B and between the flat portions d^1 d^1 of the clip, and this block should be exactly the thickness of the axle on which the clip is to be fitted. This block will thus serve as a gage for the clips. When the die-sections B B are forcibly pressed up to the blank and held firmly, a drop is brought down upon these sections, and the top surface of the bar d^3 is flattened. This completes the operation.

The break-down dies represented by Figs. 8 and 9 consist of two sections, with depressions and elevations on them corresponding to the shape of the primary blank shown in these figures.

The bar is first adjusted between the dies and formed as shown in Fig. 8, after which it is turned over and straightened and the swell *y* put in it, as shown in Fig. 9. The blank is then creased at *f f*, as shown by Fig. 2, after which it is adjusted between the dies A, as above described.

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

1. The die-sections A, recessed as described, to produce the blank of Fig. 3 with fins *x*, as specified.

2. The dies shown by Figs. 8 and 9, for producing the primary blank Fig. 2, from which the blank Fig. 3 is produced, as set forth.

3. The combination of the dies shown by Figs. 1, 5, 6, 8, and 9, as and for the purpose herein described.

FREDERICK VAN PATTEN.

Witnesses:
HORACE T. COOK,
C. M. FITCH.