(No Model.)

C. HAUPT & D. H. DAWSON.

Machine for Setting Boxes in Hubs.

No. 236,429. **Patented Jan. 11, 1881.**

FIG. 1.

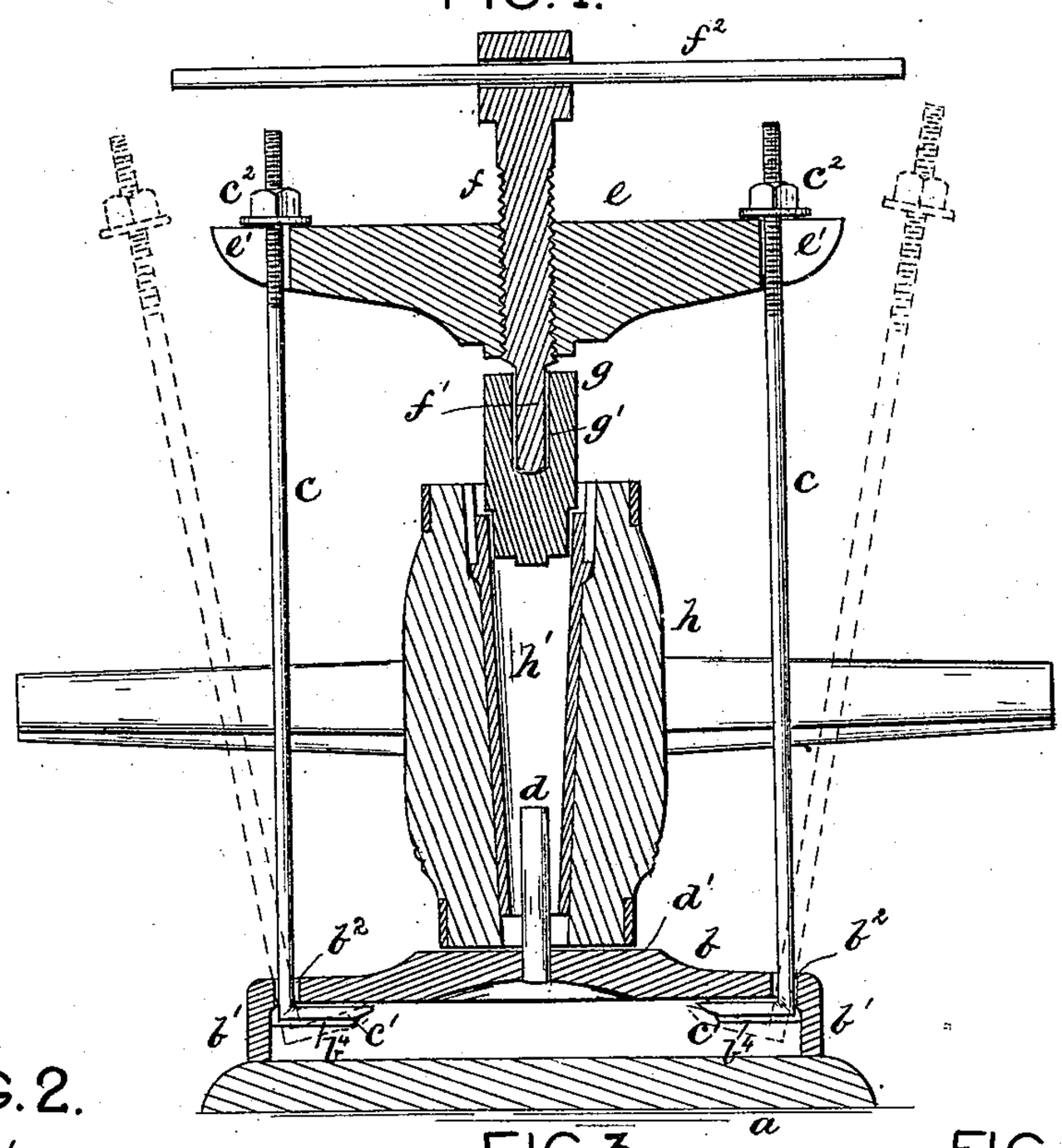


FIG. 2.

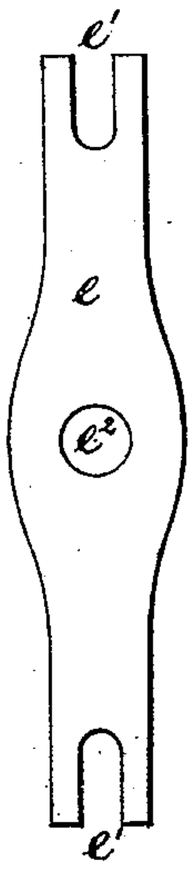


FIG. 3.

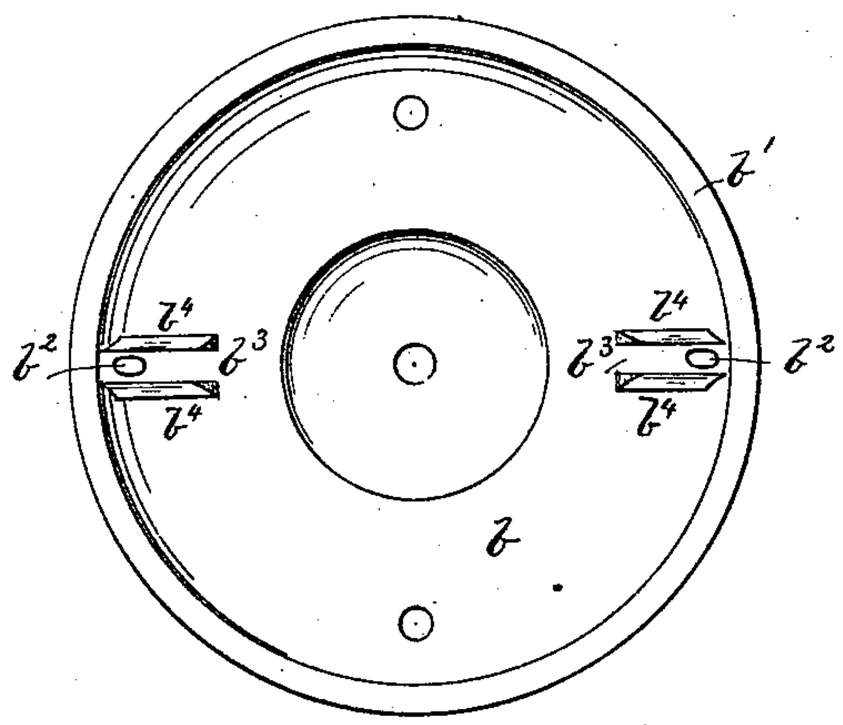
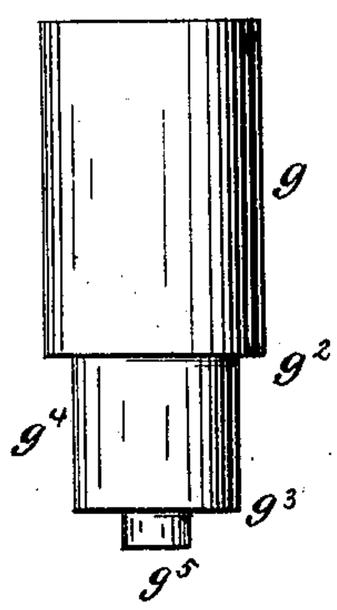


FIG. 4.



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UNITED STATES PATENT OFFICE.

CHARLES HAUPT AND DAVID H. DAWSON, OF NEW PHILADELPHIA, OHIO.

MACHINE FOR SETTING BOXES IN HUBS.

SPECIFICATION forming part of Letters Patent No. 236,429, dated January 11, 1881.

Application filed April 30, 1880. (No model.)

To all whom it may concern:

Be it known that we, CHARLES HAUPT and DAVID H. DAWSON, citizens of the United States, resident at New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Machines for Setting Boxes in Hubs; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its object to provide an improved device for setting boxes in the hubs of vehicles; and it consists in the construction and arrangement of the several parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a vertical section of a machine constructed according to our invention, showing a hub and box in position thereon. Figs. 2, 3, and 4 are detail views of parts of the invention.

a is the base, made of any suitable material, to which the supporting-plate *b* is affixed by means of screws or other fastenings. The supporting-plate *b* is, by preference, made round, and is provided with the circular flange *b'*, projecting downward from its rim, as shown. The rim *b'* rests on the base *a*, and provides sufficient space in which the lower ends of the vertical rods *c c* have a slight play, for purposes hereinafter explained. There are formed through the plate *b* the oval holes b^2 b^2, arranged near the circumference and diametrically opposite to each other, and on the under side of the plate two channels, b^3 b^3, are formed by downwardly-projecting ridges or lugs b^4, so as to extend radially inward from the said holes b^2. On the upper side and at the center of the plate we fix the vertical pin *d*, and surrounding the pin is the face *d'*, which extends outward far enough to receive the end of and make a firm foundation for the end of the hub.

The vertical rods *c* are put through the oval holes b^2, and pass between the spokes of the wheel, and they have their lower ends bent so as to form feet *c' c'*, which are held in the channels b^2, as shown. These feet and the oval holes b^2 permit the rods *c* to turn outward, as shown in Fig. 1, and at the same time retain the said rods in proper position to be readily applied to the yoke *e*. The upper ends of the rods are threaded and provided with nuts c^2 c^2.

e is the yoke, which has the longitudinal vertical slots *e' e'* formed in its opposite ends, and has the vertical threaded hole e^2 at its central point, through which is put the screw *f*. The rods *c* pass between the spokes of the wheel and through the slots *e'*, and are put in or out of position by turning outward or inward, as indicated in Fig. 1. The nuts c^2 are above, and may be turned down onto the yoke to hold the latter firmly, or they may be loosened, so that the rods can be easily turned out of the slots and away from said yoke.

On the lower end of the screw we form an extension or pin, *f'*, less in diameter than the body of the screw and without any thread, so that it will turn readily in the socket in the chuck *g*. The screw is provided with any suitable lever, f^2, by which it can be turned.

g is the chuck, which has formed in its upper end the socket *g'*, to receive the pin *f'* of screw *f*. On the lower end of the chuck we provide a series of shoulders, g^2 g^3, formed by constructing the said end in sections g^4 g^5, having different diameters, as shown. This adapts it to hubs and boxes of wheels of different sizes. *h* is the hub, and *h'* the box.

The operation of the device is very simple. The smaller end of the hub is placed on the face *d'* and over the pin *d*. The box *h'* is pushed into the hub as far as may be done by the hand. The chuck *g* is adjusted on the box with one of the shoulders g^2 g^3 resting on the end thereof. The yoke *e* and screw *f* are put in position with the pin *f* in the socket *g'*. The rods *c c* are brought into the slots *e' e'*, and the nuts c^2 c^2 turned down onto the upper side of the yoke. By turning the screw *f* the box *h'* will be forced into the hub, as is clearly shown in Fig. 1.

If it be desired to remove the box *h'* the hub is set with its larger end on the face *d'*. The chuck, having different sections g^4 g^5, as described, will rest on the smaller end of the box, and the screw will act on it in same manner as when the box is being forced into the hub.

By means of this chuck, constructed and operated as described, we are enabled to set boxes very rapidly, and without the annoyance attending box-setters of ordinary construction.

By loosening the nuts c^2 very slightly the rods c can be thrown outward, so that the yoke, screw, and chuck can be lifted out of position, and the hub be removed to be replaced by another.

This device could be constructed so as to leave the end of the screw f bear directly on the box h', thus dispensing with the chuck. The socket could also be dispensed with and the screw made to bear directly on the upper end of the chuck; but the use of the chuck constructed as described gives better results.

It will be seen that the yoke may be removed entirely away from the vertical rods c. This is necessary to enable the wheel to be placed on the base.

The boxes are seldom put in place until after the spokes and rim have been fixed to the hub. In ordinary box-setting machines it is necessary to put the box in place before the spokes and rim are attached. In our device the yoke and screw are lifted off, and the wheel is passed over the rods, the latter coming upward between the spokes and between the rim and hub.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The supporting-plate b, formed with the downwardly-projecting rim or flange b' and furnished with the radially-elongated holes b^2, and the lugs b^4, formed on its under side and extending radially inward from opposite sides of the holes b^2, forming retaining-channels b^3, the pin d, projecting upward from the center of the plate b, the vertical rods c, having the hook c' on their lower ends, and the yoke e, furnished with the open slots e' in its opposite ends and carrying the screw f, all arranged to operate substantially as set forth.

2. In a machine for setting boxes in hubs, the chuck g, constructed with a series of projecting shoulders, g^2 g^3, of different diameters, and having the socket g' in its upper end, and the screw f', having the pin or projection f on its lower end, all arranged to operate substantially as set forth.

In testimony that we claim the foregoing, we have hereunto set our hands and seals this 26th day of April, 1880.

CHARLES HAUPT. [L. S.]
DAVID H. DAWSON. [L. S.]

Witnesses:
SAMUEL HARPER,
J. H. BOOTH.