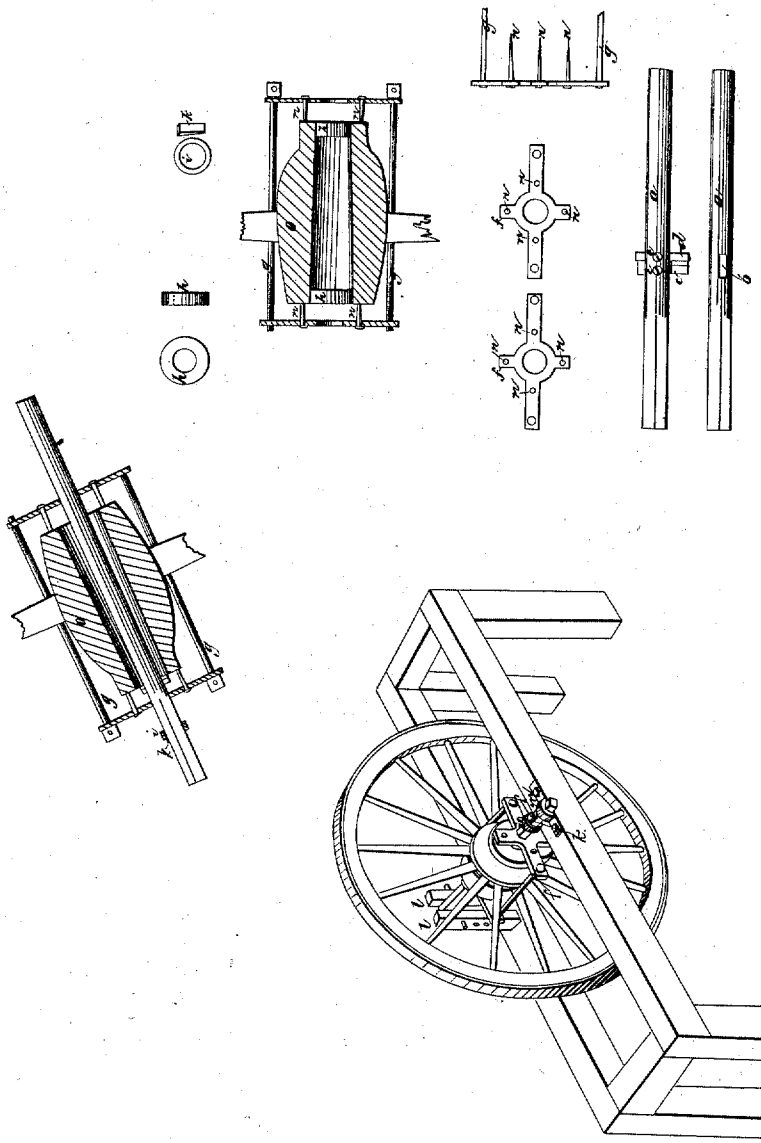
6953X

J. B. Francis,

Boring Hubs.

Patented Mar. 2 1832.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

6953X

Mar 2. 1832

John B. Fawcett, Loudoun County Virginia.

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said John B. Fawcett, himself, of his improvement in the Machine for boring & cutting out the ends of Hubs of wheel carriages to receive the Boxes

To all to whom these presents shall come.—

Be it known that I John B. Fawcett in the County of Loudoun and State of Virginia, have invented a new and useful improvement in cutting or boring out the Ends of waggons and all other wheel carriages to receive the boxes, also the cups for the Linch pins, and the following is a full and exact description of the construction & operation of the said Machine as invented or discovered by me according to the Model herewith presented. First, An iron spindle about two feet six or eight inches long made round and smooth of uniform size, and large enough to prevent it from bending, with a screw and spiral and a mortise about five inches long a foot at least from the Screw and to receive the shanks of the bits and Gauge, with a tapering screw or wedge inserted opposite of the shanks aforesaid, to tighten & slacken them, bits of several sizes to suit the different sizes of boxes will be necessary, with shanks to fit the Mortise in the Spindle, leaving room between it and the screw or wedge to receive the shank of the Gauge. The blade of the bit should stand backwards to throw the edge with the inner corner forward to prevent splintering or roughing in cutting. The Gauge should be made to go before the edge of the bit leaving an Inch cut or shoulder so as to give the bit its proper depth or prevent it from taking too much work. But the rest plane must be made to fit the form with proper rings, each two shorter than opposite end which

Horse

6953X

three of one plate to suit the longer end, and three of the other the smaller ends of the stubs, also two longer wings to each plate opposite each other, about one inch and half inch from the ends of the plate) than the exact diameter of the largest stub with a point of iron three inches in length either bright or blued and each wing at equal distances from the centre, also half inch holes made near the extremities of the long wings with countersunk sides of them, there is one hole must be made to fit the said holes with long screws put in one end of them the other end with a head and hole through it to receive a wrench to turn them; the rods should be about twenty one inches long, the plates must have holes in their centres to admit the spindle the tighter the better, so that it can be inserted or drawn out with ease. There is another gauge necessary which is a rod of iron so made to fit the spindle with substance sufficient to admit a wedge or key to tighten and hold it stationary; it will also be necessary for all persons using said Machine to provide wooden wheels for which I shall hereinafter call centre wheels made to fit the spindle, and the inside of different sizes boxed. The manner of using said Machine is as follows; The stub must be gauged out in the usual way to the inside of the boxes, then the centre wheels introduced into each end and the spindle passed through them, the plates to be slipped on the spindle at their respective ends, the long screws to be inserted into their places in the wings with the ends pointing between the spokes of the wheel; the points are then entered into the ends of the stub and the screws wrenched up to hold them to their places; the spindle is then drawn out and the centre wheels taken out, the spindle is then returned and the first mentioned large plate in the Machine and made tight with the tapered screw or wedge, the spindle is now through the stub into the opposite box, the other gauge is then applied on the opposite end to find the true

for

6453X

2/2

for which it is to be bored will fit in depth wise between the plate and gauge, the gauge is then made fast with its wedge, the wheel is to rest on the spindle, which is placed with the under cutter uprights or afore mentioned for the purpose with the square end about eight or nine inches lower than the cutter, a cap or bar is dispos'd on the square end and screwed fast to the former or upright which holds the spindle from turning. The wheel is then turned briskly round with the plates and long screw bolts, with the weight in their inclined position bearing against the bit and gauge until the plate comes down to the circular gauge the operation is then completed. / x

The spindle is then drawn out the wheel is turned round presenting the other end of the last the spindle returned a suitable bit introduced and the operation performed as before the cutter for the linch-pin is bored out in like manner. The whole operation is performed with the greatest facility and accuracy; it is believed that the whole operation of boring the holes and then wedging in a set of bryes will not employ more than two hours by one person, whereas by the usual process it is considered by wheel wrights to be a full days work, and in point of accuracy and facility, this machine will be found preferable, as it is to smooth in the most nicety or unfinished work.

Witnesses
William H. Timmis
Thom. Rees

John B. Timmis

1832 A.D. 8 9