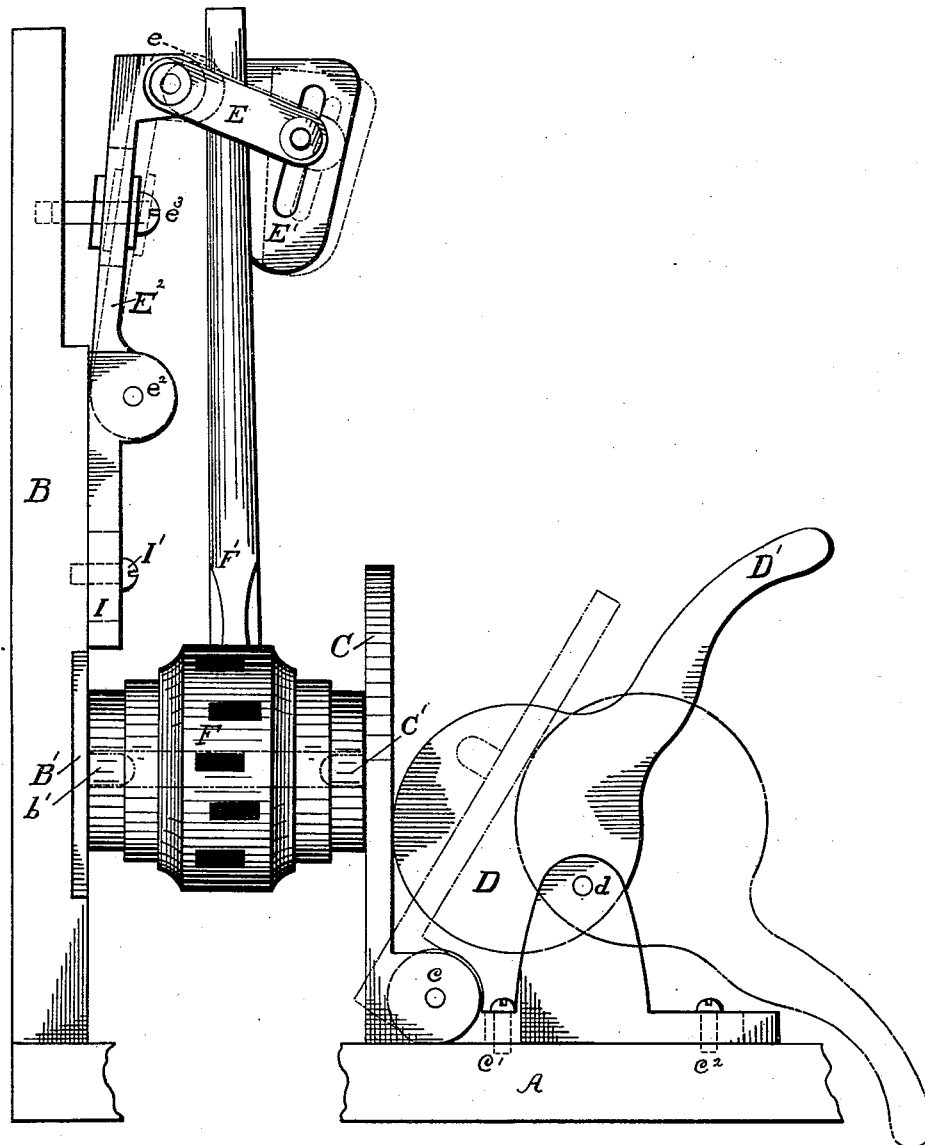


(No Model.)

A. M. FISHER.
SPOKE SETTING MACHINE.

No. 262,283.

Patented Aug. 8, 1882.



WITNESSES

Samuel C. Thomas.
J. Edward Warren

~~INVENTOR~~

INVENTOR
Andrew M. Fisher
By W. W. Leggett

Attorney

UNITED STATES PATENT OFFICE.

ANDREW M. FISHER, OF LINDEN, MICHIGAN.

SPOKE-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 262,283, dated August 8, 1882.

Application filed January 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW M. FISHER, of Linden, county of Genesee, State of Michigan, have invented a new and useful Improvement in Spoke Driving and Setting Devices; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms a part of this specification.

My invention consists of the combinations of devices and appliances hereinafter described, and more particularly pointed out in the claims.

In the drawing the figure is a view in elevation of an apparatus embodying my invention, and showing by dotted lines how the device may be opened out so as to discharge the wheel.

Heretofore it has been customary to fasten the hub of the wheel between two faces and bind the parts firmly together by a hand-screw, necessitating considerable time in the operation, or else some other time-consuming means has been employed for the purpose.

It is the object of my invention to produce a means for accomplishing the following objects: First, to effectually clamp the hub between two face-plates which are located at opposite ends of the hub; second, to center it between the two face-plates; third, to effect the clamping by a single movement of a lever; fourth, to effectually engage the upper or driving end of any spoke by a means which may be instantly disengaged for the reception of a new spoke; fifth, to afford means for giving to the spoke any predetermined set which shall give to the wheel the desired dish.

To this end, A is a suitable frame.

B is an upright, provided with a face-plate, B', and this latter is provided with a stud, b', for centering the corresponding end of a hub.

C is the other face-plate. It is hinged at c, and may by suitable slot-and-bolt fastenings, c' c'', be adjusted nearer to or farther from the upright B, to correspond with any particular length of hub.

D is a cam with a handle or lever, D'. It is pivoted at d, and impinges against the back of the hinged face-plate C, so that when in use

the cam forces the face-plate firmly against the end of the hub, and a stud, C', serves to center the wheel; but when opened out of engagement the face-plate C may be turned back and the wheel instantly released.

E is a stirrup adapted to be dropped down over a spoke, and slotted wedge E' serves to clamp the spoke firmly against the shoulder at e, which determines the set of the spoke, and consequently the dish of the wheel. The heel of the stirrup E is preferably pivoted to an arm, E², which is made adjustable about its pivot e² by a set-screw, e³, so that any desired dish may be given to a wheel.

By means of the adjustments of the spoke-setting mechanism just described and the adjustment of the face-plate C it is apparent that this one device is adapted for all sizes of wheels and for any degree of dish.

I am aware that the forms of cam mechanism may be varied somewhat; but I would have it understood that in this particular my invention contemplates any device which effects the clamping and releasing by a cam-and-lever movement. So, also, other means may be devised for adjusting the plate C nearer to or farther from the hub, as also the adjustable arm E².

F represents a hub, and F' one of its spokes in position ready to be driven.

By this device a wheel can be placed in this apparatus in a very few seconds. Its spokes can be rapidly and surely set and driven, and the wheel be instantly discharged, ready for a new wheel.

I have found that I can very largely increase the work of any hand by an apparatus of this character beyond what he could accomplish by any of the ordinary devices now in use.

The slot in the wedge-block E' permits it to descend to a firm bearing against the spoke, whether the latter be larger or smaller.

I also contemplate using at times a strap or rod extending down to the floor from this block or the stirrup, so that the operator may, if he finds it necessary, by placing his foot on the rod or strap, hold the stirrup or the block firmly down to its place while driving the spoke and prevent it from springing up off from the spoke.

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The whole stirrup mechanism may be adjusted up or down, if it is desired to locate at a distance nearer to or farther from the hub. This may be effected by means of a slot, I, and bolts I'.

What I claim is—

1. A spoke driving and setting device consisting of a stationary face-plate provided with a centering-stud, a hinged face-plate provided with a centering-stud, and a cam and lever adapted to impinge against the back of the said face-plate, whereby the plate may be clamped upon the hub or released, substantially as described.

2. A stationary face-plate and a hinged face-plate governed by a cam and lever, each plate having a centering-pin, and the said hinged face-plate made adjustable to and from the stationary face-plate, substantially as described.

3. The combination, with the stirrup E and its block, of an adjustable support, E², whereby the dish of the wheel may be determined, as required.

4. The spoke setting and driving device consisting of upright B, with face-plate D', and shifting-stirrup E, together with the hinged face-plate C and lever and cam mechanism for locking and releasing the said face-plate, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ANDREW M. FISHER.

Witnesses:

JOHN DAY,

J. EDWARD WARREN.