J. A. McDOUGALL.

SPOKE PLANING MACHINE.

APPLICATION FILED SEPT. 14, 1912.

1,065,617. Patented June 24, 1913.

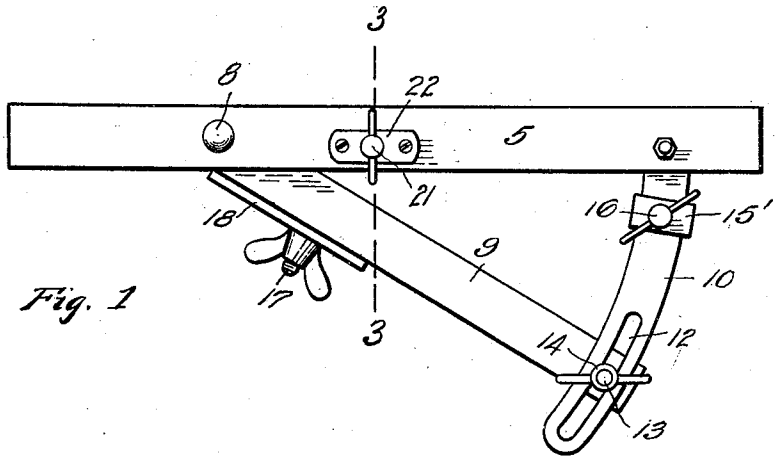


Fig. 1

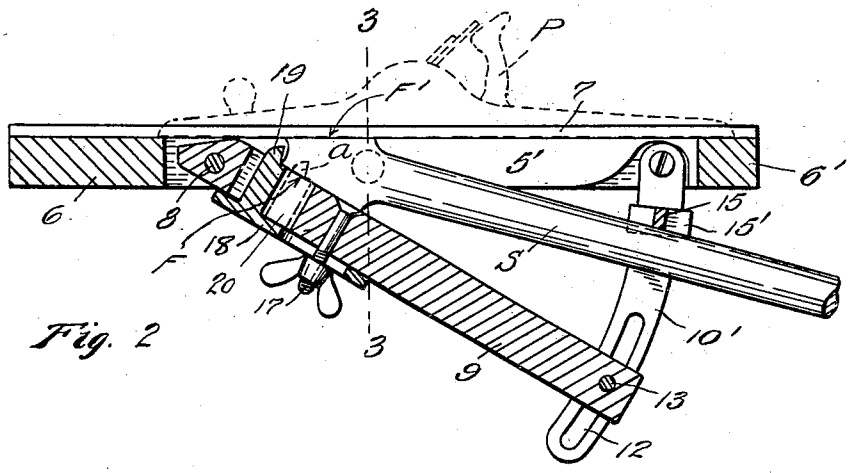


Fig. 2

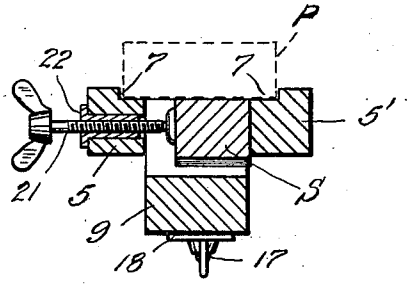


Fig. 3

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UNITED STATES PATENT OFFICE.

JAMES A. McDOUGALL, OF SEATTLE, WASHINGTON.

SPOKE-PLANING MACHINE.

1,065,617. Specification of Letters Patent. Patented June 24, 1913.

Application filed September 14, 1912. Serial No. 720,331.

To all whom it may concern:

Be it known that I, JAMES A. McDOUGALL, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Spoke-Planing Machines, of which the following is a specification.

This invention relates to machines for tapering to predetermined angles the inner ends of the spokes of automobile wheels; and its object is to provide an inexpensive and efficient machine of this type whereby work of this character may be produced with despatch and uniformity.

With these ends in view the invention consists in the novel features set forth in the appended claims.

In the accompanying drawings, Figure 1 is a longitudinal elevation of devices embodying my invention; Fig. 2 is a longitudinal vertical section of same, and Fig. 3 is a cross sectional view taken through 3—3 of Figs. 1 and 2.

The reference numerals 5 and 5′ represent parallel side members of a frame which are rigidly secured to, or formed integral with, end members 6 and 6′. Said side members are provided at their inner upper edges with grooves or rabbets 7, to afford a guide way for a carpenter's plane P, as indicated by broken lines in Figs. 2 and 3. Adjacent to its front end, the frame is hingedly connected by a pin 8 to an arm 9 which is designed to be clamped between the jaws of a bench vise for rigidly supporting the device. Suspended from near the rear end of the frame are hanger bars 10 and 10′ provided with slots 12 to accommodate a bolt 13 which extends through said arm and is screw threaded at one end for a winged clamping nut 14. A gage-bar 15 provided with a sleeve 15′ at one or both ends to receive the hanger bar or bars, is adjustably secured to the latter as by a set screw 16.

Adjustably secured to the under side of the arm 9 by a nutted clamping screw 17, is a plate 18 having a post 19 which extends through a slot 20 provided in the arm and for a distance above the upper face of the same. This post serves as a stop against which a spoke, as S, is abutted.

21 represents a screw passing transversely through a screw threaded attachment 22 in the frame member 5 to engage against a spoke and secure the same in opposition to the frame member 5′, as illustrated in Fig. 3.

To operate the invention, the spokes for a wheel are first planed upon one face of each, as the face F for example, and with the stop 19 in the position indicated by broken lines *a* in Fig. 2. After such faces have been thus dressed the other faces, as F′, are successively planed while the spoke is abutting against the stop when in the position in which it is illustrated by full lines. The plane is reciprocated in the rabbets 7 which will obviously limit the extent of the cut. When planing, the gage-bar 15 is adjusted to bear against the spoke so as to prevent the same being tilted up when the plane is shoved forward.

In practice gage marks are advantageously inscribed on a hanger bar 10 or 10′ to conveniently locate the gage bar in accordance with the thickness of the spokes and, similarly, marks may be employed on the hanger bars for regulating the angularity of the arm 9 with respect to the frame to accommodate the number of spokes, as 10 or 12 for instance, comprised in a wheel.

What I claim, is:—

1. In a device of the character described, the combination of a frame comprising spaced side and end members and provided with a guide way for a plane, an arm hingedly secured to the frame in proximity to the forward end thereof, a stop provided upon said arm and means extending through one of the frame side members and cooperating with the other of such members for clamping the work therebetween.

2. A device of the character described, the combination of a frame provided in its upper face with a guide way for a plane, an arm hingedly connected with and extending below said frame, bars extending downwardly from the frame, means for securing said arm to the bars in adjusted angular relations with respect to the plane supporting surface of said way, a gage bar adjustably secured to one of the aforesaid bars, and an adjustable stop secured to said arm, and means for clamping the work within the frame.

3. A device of the character described, the

combination of a frame provided in its upper face with a guide way for a plane, an arm hingedly connected with said frame, bars extending downwardly from the frame for supporting the free end of the arm, means for securing said arm to the bars in adjusted angular relations with respect to said frame, a stop secured to said arm, and means for clamping the work within the frame.

Signed at Seattle, Washington, this 4th day of September, 1912.

JAMES A. McDOUGALL.

Witnesses:
PIERRE BARNES,
E. PETERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."