Dec. 8, 1959 V. DUQUESNE 2,916,065

WHEEL HOLDING AND CENTERING APPARATUS

Filed Dec. 27, 1956

Fig. 1

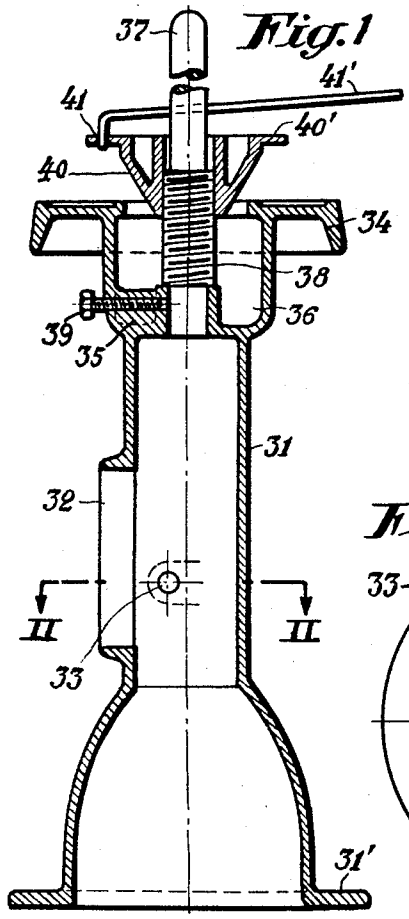
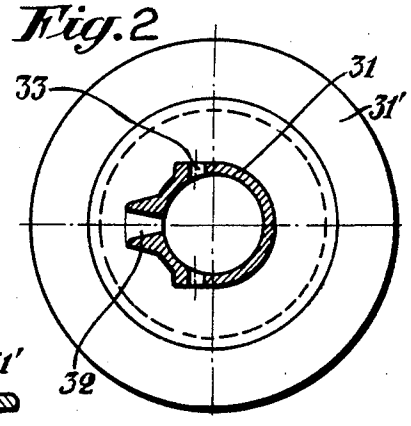


Fig. 2



Inventor:
Victor Duquesne
per Linton and Linton
Attorneys

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WHEEL HOLDING AND CENTERING APPARATUS

Victor Duquesne, Antwerp, Belgium

Application December 27, 1956, Serial No. 630,826

1 Claim. (Cl. 144—288)

The present invention has for object an apparatus for centering and locking wheels of automotive vehicles upon a sustaining plate around a central bar axially traversing said plate, for the purpose of mounting or removing tires from the rims of said wheels, while using tools directly associated with the apparatus. The invention has for object an improved construction of the apparatus described in applicant's co-pending application Ser. No. 476,965, filed December 22, 1954, and which matured into Patent No. 2,845,969. The invention has for object a simplified construction of such apparatus in which the centering and holding means afford a steadier position of the wheel body.

Fig. 1 is an axial section of the centering apparatus for wheel bodies.

Fig. 2 is a section on line 2—2 of Figure 1.

With reference to the drawing, the apparatus according to the invention, comprises a hollow column **31** with a base **31'**. The column **31** is provided with a longitudinal slot **32** and fitted inside with a transverse spindle **33** located backwards of the slot **32** and approximately in front of the middle of the slot. Upwards the column ends in a sustaining plate **34** for the wheel body. The central part of the plate presents a cavity **36**, the bottom therefrom being machined with an axial bore in an embossing which forms a hub **35** and the inner upper edge of the cavity is perfectly coaxial with said bore. The bore of the hub **35** is frictionally engaged by the lower end of the bar **37** and the portion **38** of greater diameter of said bar is threaded and this threaded portion **38** presents a shoulder taking seat on the upper edge of the hub **35**. In this way the threaded portion **38** is positioned axially erect in the cavity **36** and projects slightly above said plate **34**. A set screw **39** screws radially into

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the embossing of the hub **35** for steadying the bar **37** in operative position by engagement of its terminal point within a corresponding notch of the bar **37**. The frusto-conical member **40** of which the upper base is enlarged in a disc **40'** screws upon the threaded portion **38** of the bar **37** and the conicity of the member **40** is accurately machined to cooperate with the upper edge of the cavity **36**. The disc **40'** has a hole **41** to be engaged by the terminal bent in of a lever **41'**, for the purpose of screwing the cone member **40** close down when a wheel body is to be centered and locked upon the plate **34**.

I claim:

In an apparatus for mounting and removing tires from a wheel body having a central opening, comprising a base provided with a supporting plate for the wheel body, a central removable bar axially arranged within a central cavity of cylindrical shape axially provided in the supporting plate, wheel centering and locking means cooperating with said supporting plate and consisting in an inverted frusto-conical member screwing along a threaded portion of said axial bar, said threaded portion extending partly inside said cavity and partly above said supporting plate and leaving upper and lower ends of said bar of smaller diameter than the threaded portion, a central axial hub member formed upon the bottom of said cavity, the lower end portion of the central bar accurately engaging said hub member and the threaded portion of the central bar shouldering upon the upper edge of said hub member, a set screw locking the central bar in axial position in said hub member and the inverted frusto-conical member having its upper enlarged base extending beyond the inner edge of the entrance of said cavity.

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