PUBLISHED

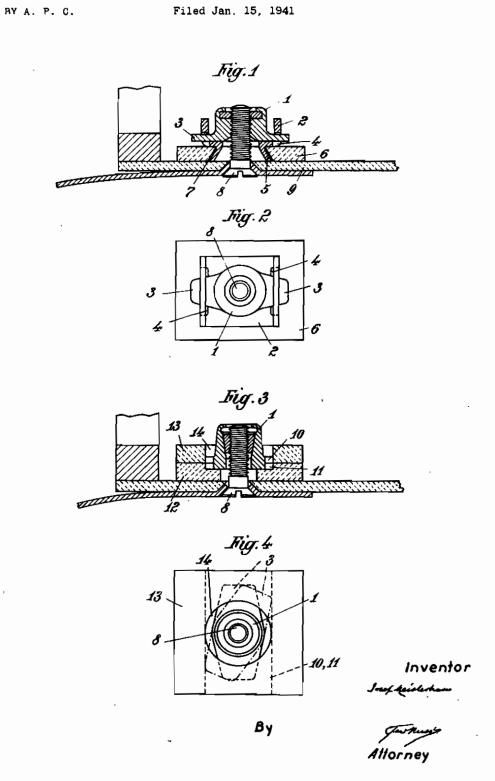
J. MEISTERHANS

Serial No. 374,464

MAY 4, 1943.

NUT TO BE FIXED BY AN ADHESIVE

Filed Jan. 15, 1941



## ALIEN PROPERTY CUSTODIAN

NUT TO BE FIXED BY AN ADHESIVE

Josef Meisterhans, Gotha, Germany; vested in the Alien Property Custodian

Application filed January 15, 1941

In my patent application Serial No. 291,261 the nut to be fixed by an adhesive consists of a nut of known type to be fixed in a non-metallic flange by riveting, pressing-in or screwing-in. In the technics since long, an adjustable building element to be fixed simply has been wanted for exchangeable building elements required in the building of airplanes and owing to the inaccuracies of distance between holes always occurring again in the workshop.

This invention relates to an adjustable nut to be fixed by adhesive, which nut ensures all these advantages and in such a manner that a nut of known type is inserted in a casing of sheet metal or in a pressed frame, and this frame together 15 with the inserted nut is fixed by rivets, pressed or screwed into a non-metallic flange of any crosssection, this flange being then fixed by means of an adhesive. Hereby is produced not only a reliable connection of the adjustable nut with the 20 constructional element, but the flange to be fixed by adhesive serves at the same time as bordering ring for the bore hole and can also be considered as static bridging element when shearing divergence occurs. Any tolerance difficulties in the 25 workshop and the disagreeable experiences at the preliminary boring and fixation by means of wood screws are therefore avoided by simply fixing this adjustable nut by an adhesive, and at the same time the possibility of exchanging dur- 30 ing the building is guaranteed by the floating insertable nut.

Two embodiments of the invention are illustrated by way of example in Figs. 1 and 2 of the accompanying drawing, in each Figure in cross- 35 section and top plan view respectively.

Fig. 1 shows an inserted nut I shiftable to all sides which is held by a sheet metal frame 2 so that, although it can yield in any direction, it is secured against turning by noses 3 engaging in a slit 4. This sheet metal frame 2 has an extension 5 adapted to be pressed by means of a conical tool into a non-metallic flange 6 so that the bore 7 in the non-metallic flange is widened in downward direction. An absolutely fixed seat is ensured by 10 the presser extension 5 roughened on the outer side. This non-metallic flange 6 is painted with glue and tightly pressed against the building element, for instance a wall of plywood 9, by means of a screw 8. After the screw 8 has been loosened, the adjustable nut forms a whole with the building element 9, and the non-metallic flange serves as bridging or for reinforcing.

In the embodiment shown in Fig. 2, two non-metallic flanges 12 and 13 each having a longitudinal slot 10, 11 respectively are provided. These flanges are connected the one with the other by an adhesive after the nut 1 has been inserted. Owing to the wider bore 14 and to the wide longitudinal slots 10 and 11, it is possible also in this instance to shift in any direction. Turning of the inserted nut is prevented by the noses 5 which come to bear against the side walls of the longitudinal slots 10 and 11. The nut to be fixed by adhesive shown in Fig. 2 is painted with glue like that shown in Fig. 1 and glued on the predetermined point, at which it serves at the same time as reinforcing element.

JOSEF MEISTERHANS.