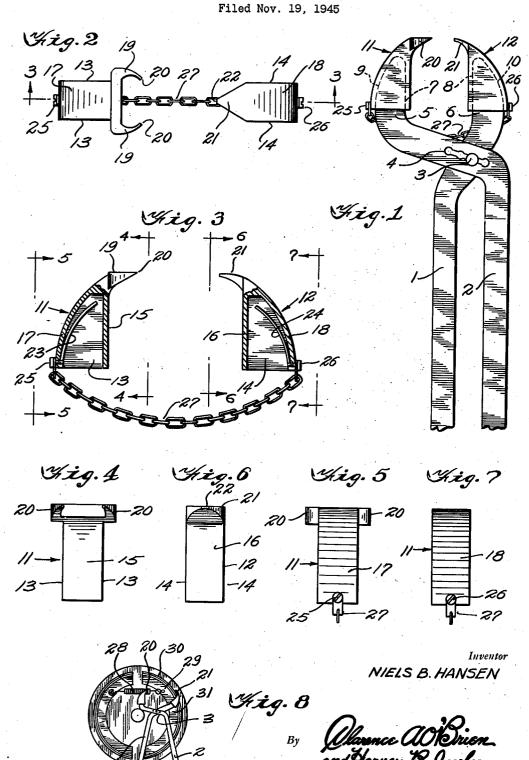
ADAPTER FOR PLIERS



# UNITED STATES PATENT OFFICE

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### ADAPTER FOR PLIERS

Niels B. Hansen, Phoenix, Ariz.

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1 Claim. (Cl. 29-283)

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My invention relates, generally, to pliers, and more particularly to improvements in adapters therefor.

The invention is designed with a primary object in view of equipping a pair of pliers, of the straight nose, slip joint, type, for quick and easy use in detaching, or attaching, the brake shoe springs of automobile brakes.

Another object is to equip such pliers with a which are easy to attach and detach, will not become accidentally displaced, and are of simple form and comparatively inexpensive to manufacture and replace.

Other and subordinate objects, also comprehended by invention, together with the precise nature of my improvements, will be readily understood when the succeeding description and claim are read with reference to the drawing action.

In the drawings:

Figure 1 is a view in side elevation illustrating my improved adapters applied to the pliers,

Figure 2 is a view in front end elevation of the adapters detached and drawn to an enlarged scale,

Figure 3 is a view in longitudinal section taken on the line 3-3 of Figure 2,

the caps.

Figure 5 is a view in rear elevation of the

Figure 6 is a view in front elevation of the other cap,

Figure 7 is a view in rear elevation of the same,

Figure 8 is a view in elevation illustrating the manner in which the adapters and pliers are

Reference being had to the drawings by numerals, the type of pliers with which my invention is particularly concerned, comprises a pair of ably connected together by means of a slip connection comprising a stud 3 and notched slot The handle-bars 1, 2 terminate in straight jaw forming noses 5, 6 of flat form with straight,

rear edges 9, 10. The edges 7, 9 and 8, 10 impart a taper to the noses 5, 6.

According to my invention, adapters are provided for such pliers comprising a pair of thimblelike caps 11, 12 of substantially the same length as the noses 5, 6. The caps 11, 12 are designed to fit over the noses 5, 6, with a slight clearance at the rear edges 9, 10 of said noses, for a purpose presently seen. To this end, said caps 11, 12 pair of adapters, for the purpose above set forth, 10 are formed with straight parallel side walls 13, 14, straight front walls 15, 16, and arched rear faces 17, 18 converging toward the walls 15, 16. The cap II is provided at its outer end with a pair of laterally spaced prongs 19 extending forwardly 15 of the front wall 15 at substantially a right angle thereto, said prongs being hook shaped and tapering to sharp points 20. At best shown in Figure 2, the prongs 20 are spaced apart a greater distance than the sides 13 of said cap 11. The cap companying and forming part of this specifica- 20 12 is provided at its outer end with a single forwardly projecting prong 21 tapering edgewise to a point 22. Longitudinally arched leaf springs 23, 24 are provided in the caps 11, 12 to extend along the rear walls 17, 18. Screws 25, 26 attach 25 the springs 23, 24 at one end thereof to the walls 17, 18 adjacent to the inner ends of the caps 11, 12. A chain 27 having its ends connected to said screws 25, 26 couples the caps 11, 12 together.

Referring to the use and operation of the de-Figure 4 is a view in front elevation of one of over the noses 5, 6 of the pliers i and frictionally locked thereto by the springs 23, 24. With the prongs 20 suitably hooked into a brake shoe spring 28, to be stretched for connection to its stud 35 29, and the prong 21 hooked over the lining 30, of a brake shoe 31, the caps 11, 12 may be moved toward each other by manipulation of the handlebars 1, 2 to stretch said spring as desired.

The foregoing will, it is believed, suffice to im-40 part a clear understanding of my invention without further explanation.

Manifestly the invention, as described, is susceptible of modification without departing from the inventive concept, and right is here rehandle-bars 1, 2 crossed and pivotally and slid- 45 served to such modifications as fall within the scope of the appended claim.

What I claim is:

Means for converting a pair of pliers into a tool for tensioning a brake spring to remove it working inner front edges 7, 8, and arched outer 50 from or assemble it in operative position comprising a pair of thimbles adapted to be fitted over the jaws of the pliers, one of said thimbles having a pointed brake shoe lining engaging prong on its outer end, the other thimble having a pair of laterally spaced, pointed and hook-shaped spring-engaging and tensioning prongs on its outer end faced toward each other, the prongs of the two thimbles being extended to project toward each other when the thimbles are fitted on said jaws, a leaf spring arranged within and longitudinally of each thimble at the back thereof to removably secure said thimble on the associated jaw, headed fasteners securing the inner ends of the springs to the thimbles, and a flexible element coupling said thimbles and connected at its ends to said headed fasteners.

## NIELS B. HANSEN.

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