

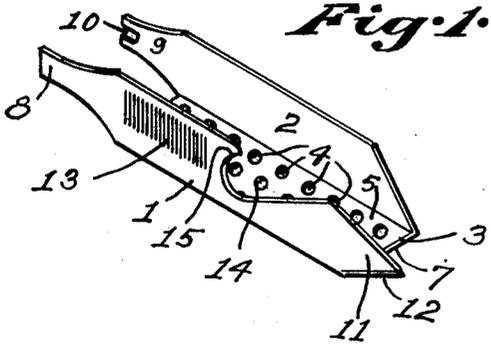
May 29, 1934.

F. J. HAGERLING

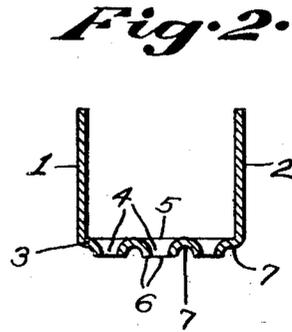
1,960,378

TOOL

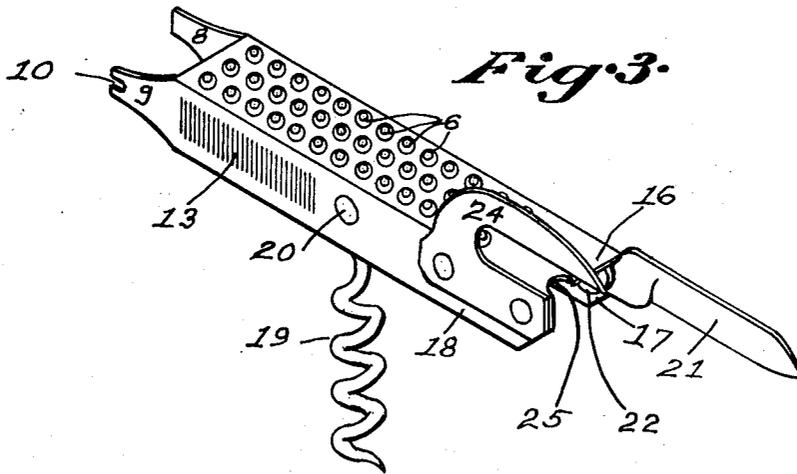
Filed July 21, 1932



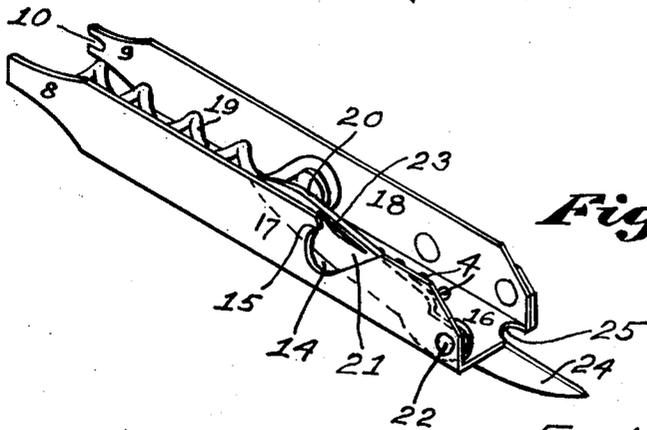
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

INVENTOR:  
Fred J. Hagerling,  
BY Hugh K. Wagner,  
ATTORNEY.

# UNITED STATES PATENT OFFICE

1,960,378

## TOOL

Fred J. Hagerling, St. Louis, Mo.

Application July 21, 1932, Serial No. 623,723

3 Claims. (Cl. 29-78)

This invention relates to tools, and more particularly to a tool for buffing inner tubes of tires preparatory to applying patches thereto.

The principal purpose of the invention is to provide a tool of this character which will be so accommodated to the fingers and hand of the user that it can be very firmly held and very effectively applied with a minimum of effort to produce highly satisfactory results.

Another purpose is to provide a tool which will be simple, strong, compact, and which can be produced at low cost.

Another object is to provide a tool of this character which will be useful for divers purposes and in different situations.

Other objects, advantages, and desirable features of the invention will appear in the course of the following description of two embodiments of the spirit of the invention.

In the accompanying drawing forming part of this specification, in which like numbers of reference denote like parts wherever they occur,

Figure 1 is a perspective view of one form of this invention as it appears with its buffing side presented downwardly;

Figure 2 is a transverse section thereof;

Figure 3 is a perspective view of another form of the invention having its buffing side presented upwardly; and

Figure 4 is a perspective view of the form of Figure 3 with its buffing side facing downwardly.

The form of the invention shown in Figures 1 and 2 comprises a strip of sheet metal, preferably steel, bent into channel form or U-shaped cross-section, so as to present a pair of flanges 1 and 2, respectively, connected by a web 3. A plurality of holes 4 are punched into the web 3 from its inner face 5, so that the edges 6 of these holes 4 bulge outwardly from the outer face 7 of the web 3, the edges 6 constituting means for scraping or buffing rubber. The flanges 1 and 2 extend longitudinally beyond one end, at least, of the web 3, and these extensions may, if desired, take respectively, the form of a screw driver 8, and a tool 9, slotted at 10, for engaging the caps of the cores in the air valves of inner tubes. The opposite end 11 of one of the flanges, as for instance, the flange 1 may, also, be extended and provided with an inclined sharpened edge 12 for cutting or trimming purposes. The web 3 is wide enough (about five-eighths of an inch wide) to accommodate the tip of the index finger between the flanges 1 and 2, and the flanges 1 and 2 are wide enough (about one-half inch in width) to permit the outer face of one of the flanges to be comfort-

ably engaged by the thumb of the user, while the outer face of the other flange provides an ample seat or bearing for the tips of the middle, ring and little fingers, so that all the digits of the hand can be brought into simultaneous use for wielding the buffer with vigor and dexterity at the expense of a minimum of effort, the forefinger bearing directly down upon the web 3, as well as against both flanges to contribute to the movement in both directions. A series of fine sharp ridges or teeth 13 may be formed on the outer side of one or both of the flanges, as shown on the flange 1, thereby enabling the flanges to be gripped more tightly. The teeth 13 can, also, be used as a file, and a recess 14 may be formed in the flange 1 with edges 15 shaped to form a bottle-cap remover. The extensions 8 and 9 provide ample bearing for the thumb and the middle, ring, and little fingers when the forefinger is placed on one end of the web 3 to concentrate the pressure thereat, as would be done, for example, in case a small spot only had to be buffed.

The form of the invention shown in Figures 3 and 4 comprises a web 16, flanges 17 and 18, bulging buffing edges 6, a screw driver 8, a valve tool 9, a file 13, and a bottle-cap removing recess 14 and edges 15. A cork screw 19 is also pivoted at 20 to the inner face of the flange 18. A knife blade 21 is pivoted at 22 to the inner face of the flange 17. The nick 23 of the blade 21 is located so that it will be accessible from the recess 14 when the blade is closed. A can opener 24 is attached to the outer face of the flange 18, and a notch 25 is provided in the end of the web 3 in juxtaposition to the can opener 24 to receive the rim of the can and so to guide the opener along its path.

Having thus fully described this invention, I hereby reserve the benefit of all changes in form, arrangement, order, or use of parts, as it is evident that many minor changes may be made therein without departing from the spirit of this invention or the scope of the following claims.

I claim:

1. A buffing tool comprising a channel bar having a pair of parallel flanges connected by an intermediate web, the outer side of the web having provisions for buffing, and the outer side of one, at least, of the flanges having conformations to facilitate the grip of the fingers thereon, said flange extending beyond one end, at least, of the web.

2. A buffing tool comprising a channel bar having a pair of parallel flanges connected by an

intervening web, the outer side of the web having conformations for buffing, and the outer side of one, at least, of the flanges having a longitudinal series of transverse teeth, said flange extending 5 beyond one end, at least, of the web.

3. A buffing tool comprising a bar of U-shaped cross-section formed of a single piece of sheet metal bent to define a pair of flanges connected

at the bottom by an intermediate web, the web having buffing means on its outer face, and the flanges extending longitudinally beyond one end, at least, of the web, and the lower edge of the said extension receding from the plane of the web. 80

FRED J. HAGERLING.

10	85
15	90
20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150