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COMBINATION AIR NOZZLE

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Fig. 1

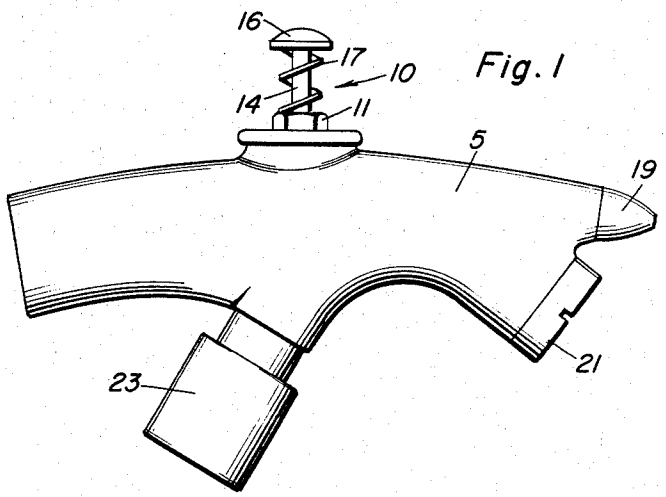


Fig. 2

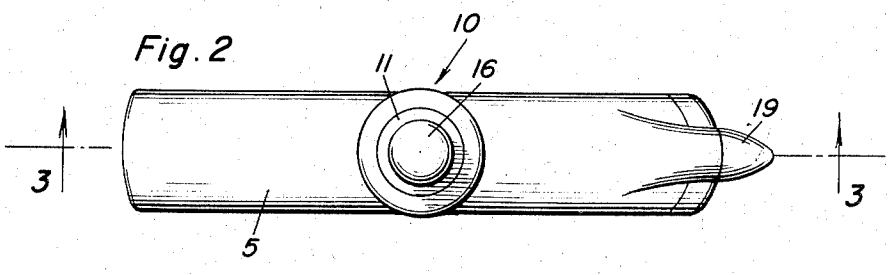
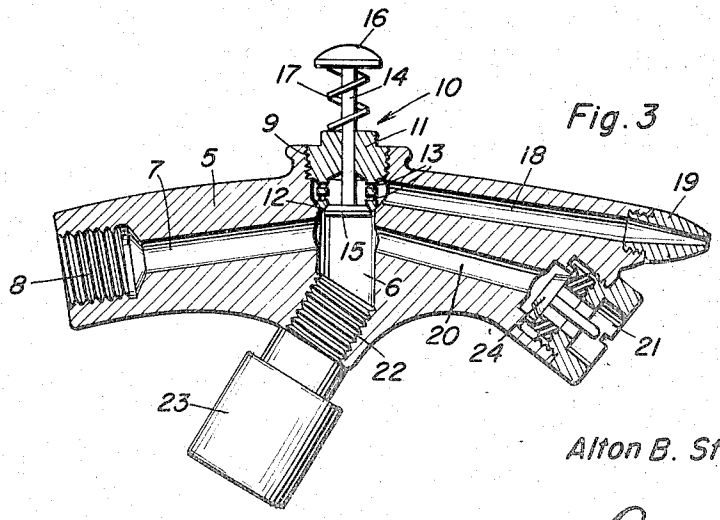


Fig. 3



Alton B. Stafford
INVENTOR.

BY Thomas A. O'Brien and Harvey B. Jacobson
Attorneys

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COMBINATION AIR NOZZLE

Alton B. Stafford, Vanceburg, Ky.

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2 Claims. (Cl. 137—223)

The present invention relates to new and useful improvements in air nozzles for use particularly in automobile service stations and garages and has for its primary object to provide, in a manner as hereinafter set forth, novel means whereby substantially all of the usual operations involving the use of air under pressure such, for instance, as blowing, inflating tires, operating lifts and pneumatic tools, etc., may be conveniently accomplished with a single combination device.

Other objects of the invention are to provide a combination air nozzle of the aforementioned character which will be comparatively simple in construction, strong, durable, compact, highly efficient and reliable in use and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a view in side elevation of a combination air nozzle constructed in accordance with the present invention;

Figure 2 is a top plan view of the device; and,

Figure 3 is a vertical longitudinal sectional view, taken substantially on the line 3—3 of Figure 2.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated metallic body 5 of substantially the shape shown. Extending vertically through the body 5 at an intermediate point is an air chamber 6.

Extending londitudinally in the body 5 from the rear end thereof to the chamber 6 is an air inlet passage 7. The inlet passage 7 comprises an enlarged, threaded rear end portion 8 for permanently connecting a hose from a suitable source of air under pressure to the body 5.

The chamber 6 includes an enlarged, threaded upper portion 9 which accommodates a thumb valve 10. The valve 10, in the embodiment shown, includes a threaded metallic housing 11 which is screwed into the portion 9 of the chamber 6, said housing being open at its lower end and comprising a seat 12. The housing 11 further includes, in its lower portion, a multiplicity of outlet ports 13. Extending vertically through the housing 11 is a slidable rod 14 having a head 15 on its lower end engageable with the seat 12. A thumb button 16 is provided on the upper end of the stem 14. A coil spring 17 is interposed between the housing 11 and the button 16 for engaging the head 15 with the seat 12.

Formed longitudinally in the upper forward portion of the body 5 is a blowing passage 18 which communicates with the upper portion of the chamber 6 on the outlet side of the valve 10. Thus, the valve 10 controls the passage 18. The passage 18 terminates in an enlarged forward end portion in which a jet nozzle or tip 19 is threadedly mounted.

Also formed longitudinally in the forward portion of the body 5, below the passage 18, is an inflating passage 20 which communicates with the chamber 6 below the valve 10. The forward end portion of the passage 20 is enlarged and formed to threadedly receive a chuck 21 which is engageable in the usual manner with the inflating valve of a pneumatic tire.

The chamber 6 further includes a rearwardly angled lower portion 22 which threadedly receives a suitable quick coupler 23 similar to the valved chuck 21 for detachably connecting a hose to an air lift or pneumatic tool to the body 5.

It is thought that the operation of the device will be readily apparent from a consideration of the foregoing. Briefly, the valve 10 and the usual valve 24 of the chuck 21 are normally closed. Air under pressure enters the chamber 6 from the inlet passage 7. When it is desired to blow carbon, for instance, the valve 10 is opened to permit the air to discharge under pressure through the passage 18 and the tip 19. The construction and arrangement of parts, it will be observed, is such that the valve 10 may be conveniently opened with the thumb of the hand which grips the body 5. To inflate a pneumatic tire, the chuck 21 is engaged with the valve stem of said tire in the usual manner. For operating an air lift or pneumatic tools, it is only necessary to connect a suitable hose therefrom to the body 5 through the medium of the coupler 23.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A combination air nozzle comprising an elongated body having front, rear and intermediate portions, a transverse bore in said intermediate portion extending entirely through said body, an air supply passage in said rear portion having continuous direct and unrestricted communication at its forward end with said transverse bore and adapted at its rear end for connection to a source of air under pressure, a pair of longitudinal air delivery passages in said front portion opening upon the front end of the latter and with their rear ends communicating directly with said transverse bore, said transverse bore being of greater cross sectional area than those of said supply and delivery passages, the forward end of one of said delivery passages having a jet nozzle therein, a manually operable spring closed valve assembly disposed in one end of said transverse bore and controlling the communication of the latter with the air delivery passage of said jet nozzle, the other of said air delivery passages having continuous and unobstructed communication at its rear end with said transverse bore and having a valved tire valve chuck at its forward end, an air delivery fitting mounted in the other end of said transverse bore and having direct, continuous and unobstructed communication with the latter.

2. The combination of claim 1 wherein said manually operated valve assembly and said air delivery fitting project laterally in opposite directions from said body with said air delivery fitting being inclined rearwardly of said body.

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