

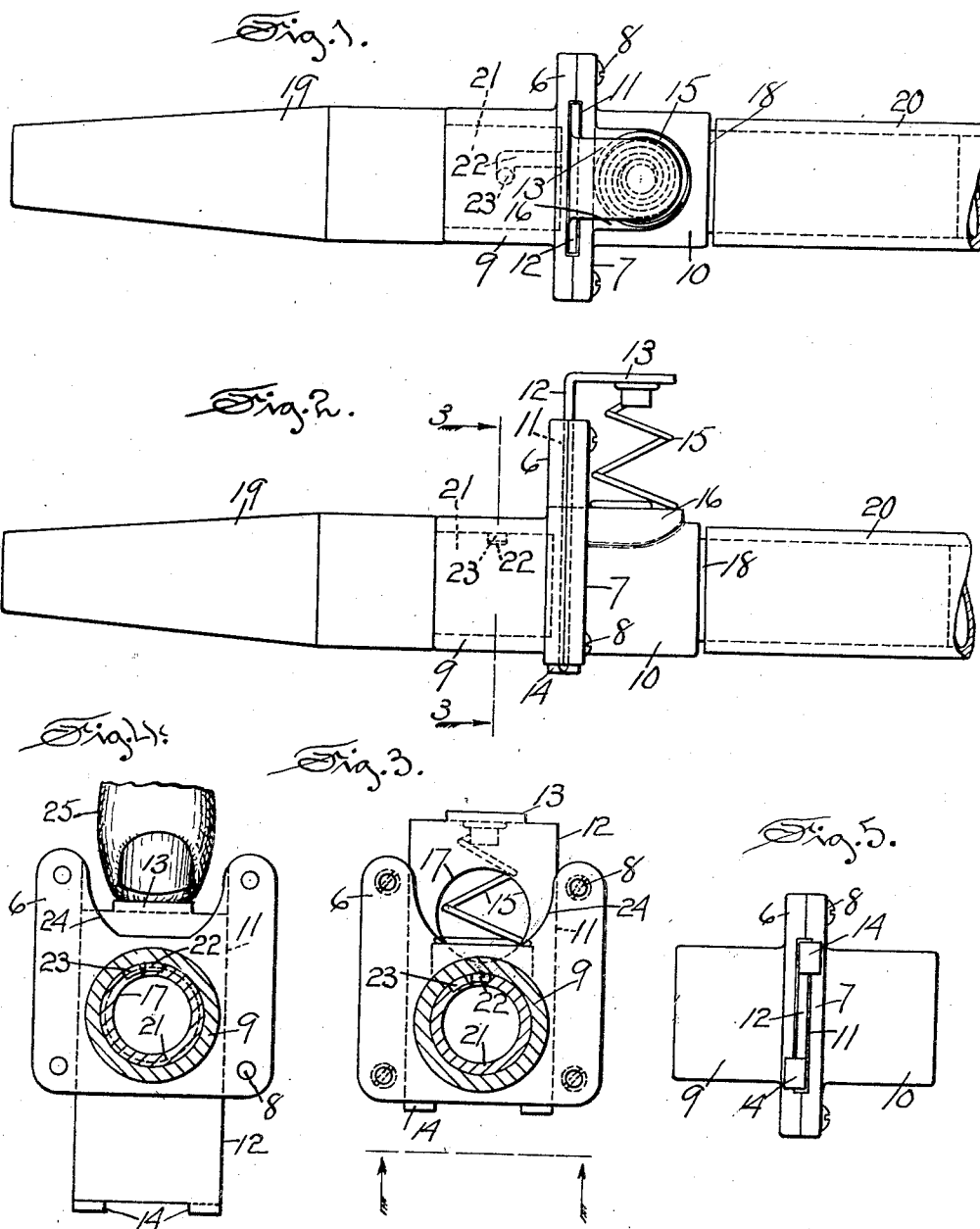
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L. C. SMITH

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ARTICLE RECOVERING IMPLEMENT

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INVENTOR
Lester C. Smith,
 by
Arthur B. Jenkins,
 ATTORNEY

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ARTICLE RECOVERING IMPLEMENT

Lester C. Smith, West Hartford, Conn., assignor to
The Spencer Turbine Company, Hartford,
Conn., a corporation of Connecticut

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3 Claims. (Cl. 294—64)

My invention relates to the class of implements particularly designed for the removal of articles from inaccessible places by means of suction, and an object of my invention, among others, is to provide a tool of this type which shall be simple in construction and particularly effective in performing the duties for which it is intended.

One form of an implement embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawing, in which—

Figure 1 is a side view of my improved recovering implement.

Figure 2 is a similar view but looking from a point at right angles to the point of view of Fig. 1.

Figure 3 is a view in cross section on a plane denoted by the broken line 3—3 of Fig. 2.

Figure 4 is a view similar to Fig. 3 but illustrating the valve in its open position for creation of suction in the nozzle.

Figure 5 is a view looking in the direction indicated by the arrows in Fig. 3, but with the nozzle and hose omitted.

During operations in and about machinery in particular and in other places it frequently happens that articles are dropped and fall into inaccessible places from which it is a difficult matter to remove them and I have therefore provided the convenient tool forming the subject matter of this application for readily removing such articles from these difficult positions, this improved implement being illustrated in the drawing herein and comprising in general a flat somewhat rectangularly shaped body with a hub projecting from one side and a support projecting from the opposite side thereof. This body comprises two members 6—7 secured together as by means of screws 8. The hub 9 is integral with and projects from the member 6 and the support 10 is integral with and projects from the part 7. A slideway 11 is formed between the members 6—7, substantially half of this slideway being located in each member.

A slide valve 12 is mounted for sliding movement in said slideway and is provided with a thumb piece 13 projecting from one end and with stops 14 projecting from opposite sides of the other end to contact with the edge of the body on that side opposite the thumb piece 13. A spring 15 is interposed between the thumb piece 13 and the support 10, being stepped upon a spring seat 16, as shown in Fig. 2 of the drawing, and exerting pressure to hold the valve 12 in its closed position.

A hole 17 extends axially through the hub 9 and also through the support 10 and a nipple 18 extends from the support 10, said hole also extending through the valve 12 so that when the latter is in its open position opposite to that shown in Fig. 2 said hole will register with the holes in the hub and support, affording a clear passage through the entire instrument and communicating with passages in a nozzle 19 and hose 20, said nozzle being composed of rubber or other suitable stiff material and having an extension 21 possessing a bayonet-shaped slot 22 for the reception of a pin 23 projecting from the wall of the hole in the hub 9.

It will be understood that the hose 20 is connected with some source for producing vacuum whereby suction is created at the mouth of the nozzle 19 to cause articles to adhere to said nozzle for the purpose of removal from inaccessible places.

The body comprising the two members 6—7 is cut away to provide a thumb receiving notch 24 into which the thumb piece 13 together with the thumb 25 of the operator passes when the valve is pressed into its open position opposite to that shown in Figs. 2, 3 and to the position shown in Fig. 4.

In the operation of the tool the body being grasped within the hand of the operator the thumb 25 of the operator is placed upon the thumb piece 13 and the latter being pressed upon the valve 12 is moved into a position opposite to that shown in Figs. 2 and 3 and into the position shown in Fig. 4, the stops 14 being moved away from the edge of the body and the spring 15 being compressed.

As will be seen this arrangement provides an extremely convenient means for grasping the instrument with one hand and for operating the valve with said hand to open the valve to create suction in the end of the nozzle 19 to pick up any article which may be desired and to maintain such suction until the article is recovered at which time pressure upon the thumb piece 13 being removed the article is released from the nozzle 19, the slide valve retreating to the position shown in Figs. 2 and 3 with the stops 14 against the edge of the body after the article has been recovered.

I claim:

1. An article recovering implement for operation by suction and comprising a flat valve body with a hub projecting from one side thereof and a support projecting from its opposite side substantially in alignment with said hub, an open-

ing extending through said hub, valve body and support for the attachment of a nozzle, a valve plate mounted for edgewise sliding movement within said body and having a hole adapted to register with the opening through said body, a notch formed in one edge of said valve body and along which said valve plate extends, a thumb piece projecting from one end of said valve and arranged to pass into said notch when the valve is opened, and a stop to limit the movement of said valve plate.

2. An article recovering implement for operation by means of suction and comprising a flat valve body composed of two members, a hub projecting from one of said members on one side of the body for the attachment of a recovering nozzle and with a support projecting from the opposite side of said body substantially in alignment with said hub, an opening extending through said hub, valve body and support, a valve slideway located between said members, a valve plate slidably mounted within said slideway and having a hole adapted to register with the opening through the body, a notch formed in one edge of said valve body and along which said valve plate extends, a thumb piece projecting from one end of said valve plate and arranged to pass into said notch when the valve plate is open, said plate extending through the

body to the opposite edge thereof, and a stop on said oppositely projecting end of the valve plate to contact with said valve body to limit the position of the plate in its closed position.

5 3. An article recovering implement for operation by means of suction and comprising a flat valve body with a hub projecting from one side and a support projecting from the opposite side substantially in alignment with said hub, an opening extending through said hub, valve body, and support, a nozzle adapted to fit within said opening in the hub, means for removably attaching the nozzle within said opening, a valve plate slidably mounted within said body and having a hole adapted to register with the opening through the body, a notch formed in one edge of said valve body and along which said valve plate extends, a thumb piece projecting from one end of said valve plate and arranged to pass into said notch when the valve plate is opened, a stop projecting from the opposite end of said valve to strike the edge of said body and limit closing movement of said valve, a spring located between said thumb piece and said support to force said valve to a closed position, and means extending from said support for attachment of an air hose thereto.

LESTER C. SMITH.