

No. 665,722.

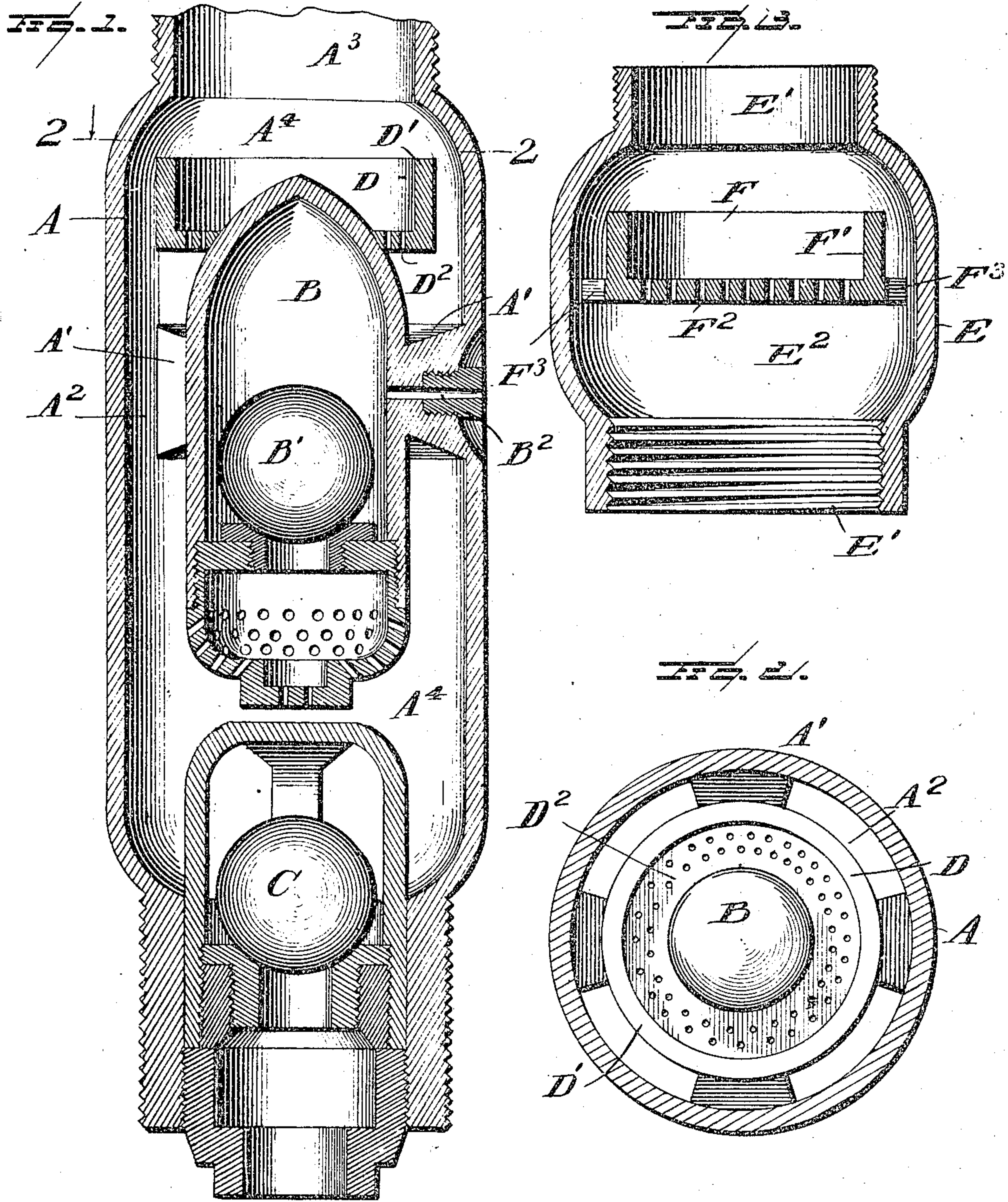
Patented Jan. 8, 1901.

A. E. BARNHART.

RIVET CATCHER.

(Application filed Nov. 5, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

AARON E. BARNHART, OF MILLERSTOWN, PENNSYLVANIA, ASSIGNOR TO
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RIVET-CATCHER.

SPECIFICATION forming part of Letters Patent No. 665,722, dated January 8, 1901.

Application filed November 5, 1900. Serial No. 35,521. (No model.)

To all whom it may concern:

Be it known that I, AARON E. BARNHART, a citizen of the United States, residing at Millerstown, in the county of Butler, State of Pennsylvania, have invented certain new and useful Improvements in Rivet-Catchers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to rivet-catchers, and is particularly adapted for application to the lower portion of working barrels of pumps to prevent rivets or other falling substances from interfering with the valve or attachment carried by the lower end of the working barrel.

The invention has for one object to provide a rivet-catching tray of equal or greater diameter than the working barrel and so disposed within its case at the lower portion of the barrel as to catch and hold all falling particles without interfering with the upward flow of liquid through the barrel.

A further object of the invention is to provide a perforated tray or cup spaced from the walls of its casing and having the inner wall of its annular rim substantially in alignment with the inner wall of the working barrel.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a vertical section through a working barrel shown in my Patent No. 464,785, having the rivet-catcher applied thereto. Fig. 2 is a horizontal section on the line 2-2 of Fig. 1, and Fig. 3 is a vertical section through a modified form of the invention.

Like letters of reference indicate like parts in the several figures of the drawings.

As illustrating one form of the invention, I have shown in Fig. 1 the working-barrel attachment disclosed in my Patent No. 464,785, dated December 8, 1891, which is applied to the lower end of the working barrel. This patent shows a shell or casing A having centrally supported therein a cylinder B and provided at its lower portion with a valve C. The cylinder B is provided with a suitable valve

B' and discharge-openings B², extending radially therefrom through the supporting-lugs A', which connect the cylinder with the casing. Between these lugs passages A² are provided for the upward flow of the liquid around the cylinder, and the object of the present invention is to prevent broken rivets, pieces of packing, and other substances from the working barrel and other parts from clogging these passages or the valve located at the lower end of the attachment.

The upper portion A³ of the casing A is of substantially the same interior diameter as the working barrel, to which it is connected in any suitable manner, while the casing below this point is enlarged, as at A⁴. Within this enlarged portion the rivet-catching tray D is supported—for instance, upon the upper end of the cylinder B. The tray is of less diameter than the enlarged portion of the casing, and thus is spaced from the walls thereof, while the inner periphery of the annular rim D' of the tray is substantially equal or slightly larger in diameter to the portion A³ of the casing and the working barrel above the same. This tray is provided at its lower portion with perforations D², which permit the discharge of liquid from the tray, yet retain therein the fallen substances. The space between the outer wall of the tray and the casing permits a constant and uninterrupted flow of liquid around the tray, so that it does not interfere with the capacity of flow.

In Fig. 3 a modified form of the invention is shown for use when it is not desired to support the tray in the attachment or when the latter may be omitted. In this form a case E is formed with threaded end portions E' and enlarged central portion E², adapted to contain the catching-tray F. These end portions E' may be threaded either upon their inner or outer periphery, so that the case may be connected to the lower end of the working barrel or interposed between the same and the attachment shown in Fig. 1. The inner face of the annular rim F' of the tray is substantially in alignment with the inner face of the end portion E' and with the working barrel above the same. The bottom of the tray is suitably perforated, as shown at F², and the tray is spaced from the walls of the case by

means of lugs F³. This permits a passage of liquid through the tray and also around the outer edge thereof, so that the well may flow to its full capacity.

5 In the operation of the invention it will be apparent that any falling rivets or other substances must follow and be guided by the inner face of the working barrel or pipe, to which the catcher is applied, and are thus posi-
10 tively caught within the tray, while the provision of the enlarged chamber in the casing allows a free flow of liquid around the tray and the perforated bottom permits the pas-
15 sage of liquid through the tray, thus washing any dirt therefrom and agitating the fallen particles, so as to keep the perforations open.

It will be obvious that the tray may be supported in various manners, and while the same is shown in Fig. 1 as provided with a
20 central aperture to fit the conical top of the cylinder still I do not intend to be confined to such detail of construction. It is also obvious that changes may be made in the details of construction and configuration with-
25 out departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

30 1. In a rivet-catcher, a casing having a reduced upper portion, and a catching-tray sup-

ported below said reduced portion and having the space within its inner wall of equal or greater diameter than that of the reduced portion, substantially as specified. 35

2. In a rivet-catcher, a casing having a reduced upper portion, and a catching-tray supported beneath said portion and spaced from the wall of the casing and having its open end of not less than equal diameter to that of
40 said reduced portion, substantially as specified.

3. In a rivet-catcher, a casing having a reduced upper portion, and a perforated tray supported beneath said portion at a distance
45 from the walls of the casing and having its open portion of not less than equal diameter to said reduced portion, substantially as specified.

4. In a rivet-catcher, a casing having a re-
50 duced upper portion, a perforated catching-tray spaced from the wall of said casing beneath said reduced portion, and an annular rim having an opening of not less than equal diameter to said reduced portion, substan-
55 tially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

AARON E. BARNHART.

Witnesses:

LOTT. I. LEECH,

JACOB B. RUMBAUGH.