

No. 784,055.

PATENTED MAR. 7, 1905.

C. W. KROENING.  
WELL FISHING TOOL.  
APPLICATION FILED MAR. 18, 1904.

Fig. 1.

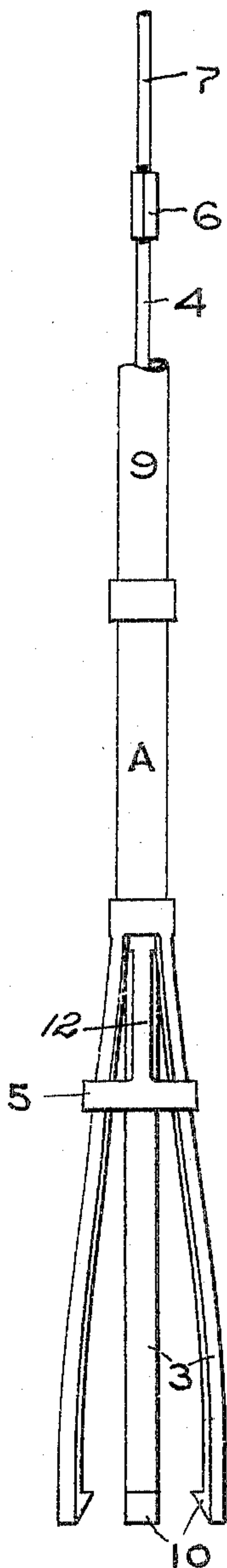


Fig. 2.

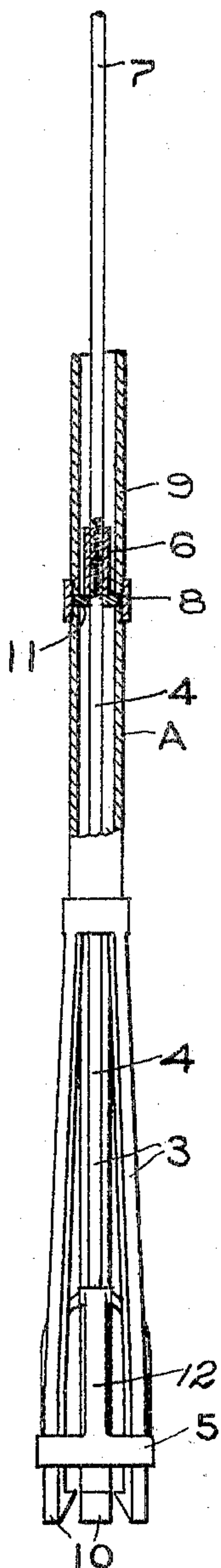


Fig. 3.

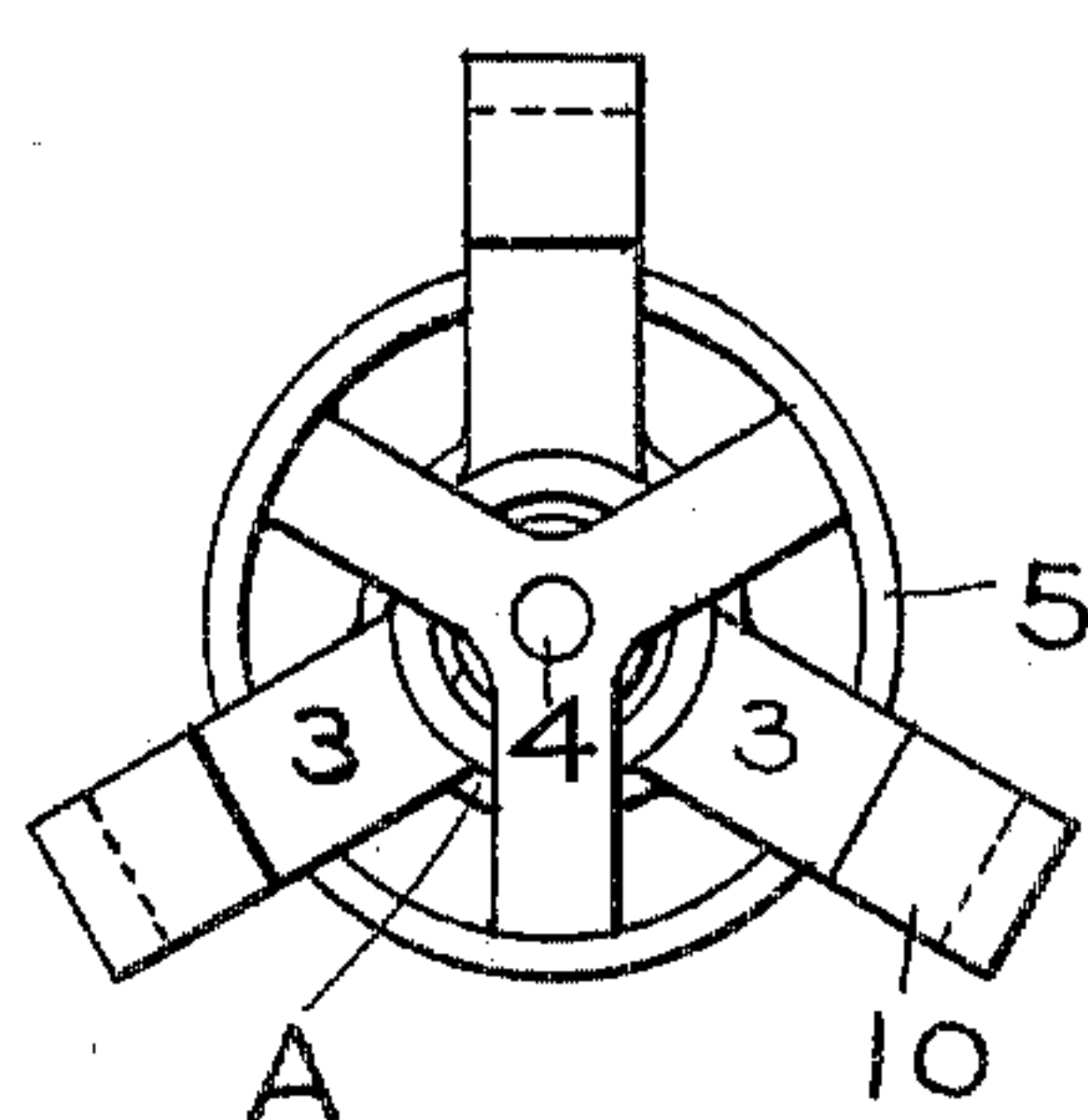
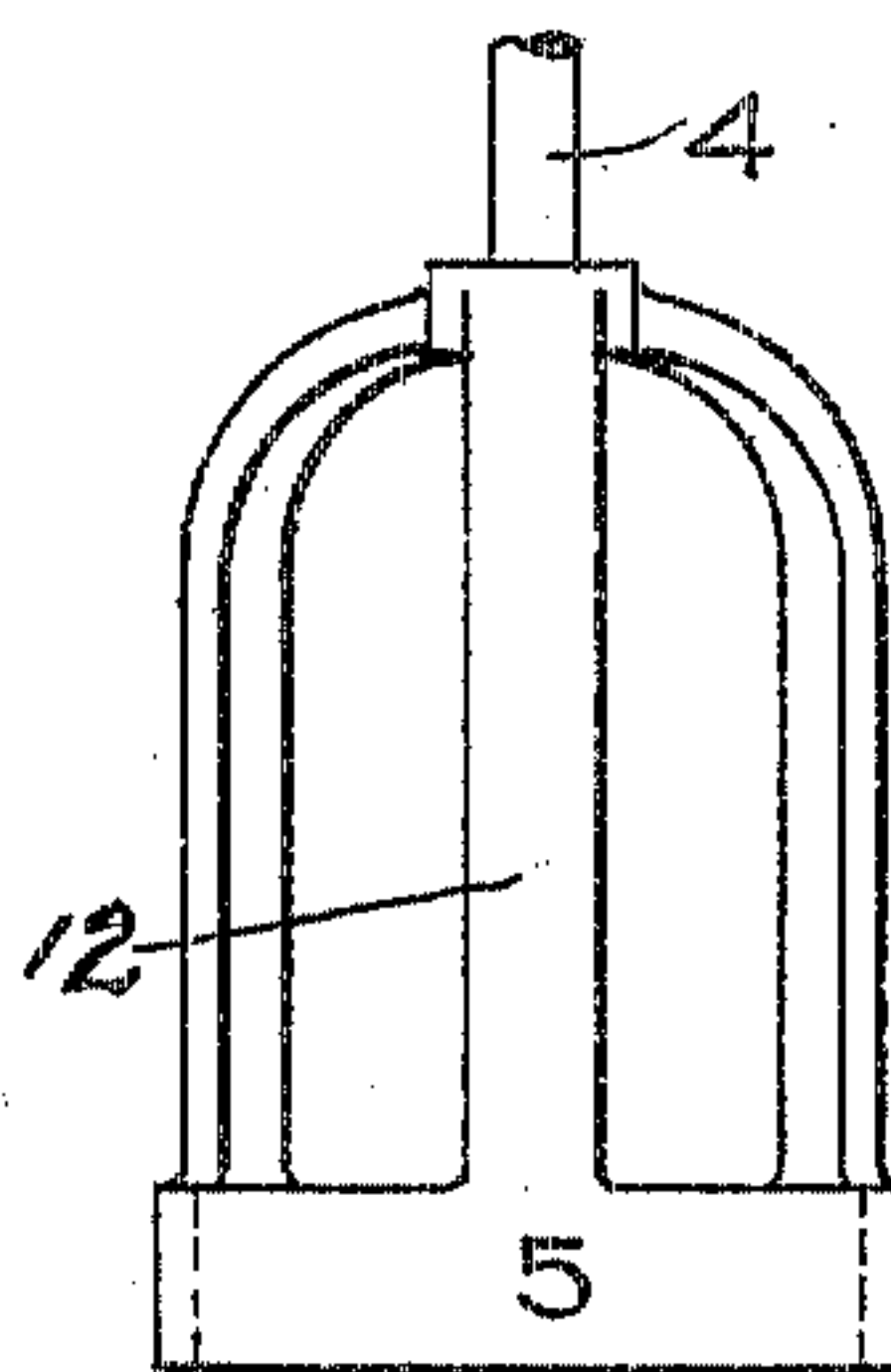


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## WELL FISHING-TOOL.

SPECIFICATION forming part of Letters Patent No. 784,055, dated March 7, 1905.

Application filed March 18, 1904. Serial No. 198,776.

*To all whom it may concern:*

Be it known that I, CHARLES W. KROENING, a citizen of the United States, residing at Stillwater, in the county of Washington and State of Minnesota, have invented certain new and useful Improvements in Well Fishing-Tools, of which the following is a specification.

My invention relates to improvements in devices for extracting broken tools, &c., from drilled wells; and it consists in the features of construction and combination hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved device. Fig. 2 is a similar view, partly broken away, showing the parts in grasping position. Fig. 3 is a bottom view of the same, and Fig. 4 is a detailed view of a part of the device.

In the drawings, A represents a sleeve carrying a series of spring-arms 3. Slidable within the sleeve is a rod 4, supporting at its lower end a collar 5, which incloses the spring-arms. The collar 5 is connected with the rod 4 by arms 12, the collar and arms 12 constituting a cage to pass around the object to be extracted, as hereinafter set forth. The rod 4 is adapted to be connected at its upper end by means of a coupler 6 to the ordinary pump-rod or other suitable rod 7. The sleeve A is connected, as by a coupler 8, with a pipe 9, which may be the water-pipe. A washer 11 is interposed between the sleeve A and pipe 9, against which washer the coupler 6 abuts to limit the movement of the collar 5.

In use the device is lowered into the well with the spring-arms closed, as shown in Fig. 2. When lowered to the bottom of the well, the rod 7 will be raised to release the spring-arms 3 and allow their toothed ends 10 to pass around the object which it is desired to extract. By forcing the rod 7 downward, as shown in Fig. 2, the collar 5 is carried down upon the spring-arms to hold the ends of the spring-arms in clamping position against the object, when the same can be drawn from the well. The arms 12 of the collar 5 form a space into which the object may extend, and thus permit a firm grip upon the object to be secured. The sleeve A and pipe 9 serve as a guide for the rods 4 and 7, preventing bending of said rods.

The device, as it will be seen, is simple and can be easily operated, and by it broken tools, &c., can be extracted from the bottom of drilled wells which cannot be successfully extracted by the ordinary well fishing-tools.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the class described comprising a sleeve, a series of spring-arms carried by said sleeve, a rod slidable in said sleeve, a series of outwardly-branching arms extending from the lower end of said rod, and a collar supported from the lower end of said branching arms and inclosing said spring-arms, for the purpose set forth.

2. A device of the class described comprising a sleeve, a series of spring-arms carried by said sleeve, a rod slidable in said sleeve, and an open-end cage supported by, and extending beyond, the lower end of said rod, the open end of said cage surrounding said spring-arms whereby an object grasped by said spring-arms may extend into said cage.

3. A device of the class described, comprising a pump-rod and an inclosing pipe, a sleeve detachably connected with the lower end of said pipe, a series of downwardly-extending spring-arms carried by said sleeve, a rod detachably connected with the lower end of the pump-rod, and a collar supported by said lower rod and inclosing said spring-arms.

4. A device of the class described, comprising, in combination, a pump-rod and inclosing pipe, a sleeve connected with the lower end of said pipe, a series of downwardly-extending spring-arms carried by said sleeve, a slidable collar inclosing said spring-arms, a rod connected with said collar, a coupling connecting said collar and rod with said pump-rod, and a washer interposed between said pipe and sleeve and serving as a stop for said coupling.

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

CHARLES W. KROENING.

Witnesses:

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