

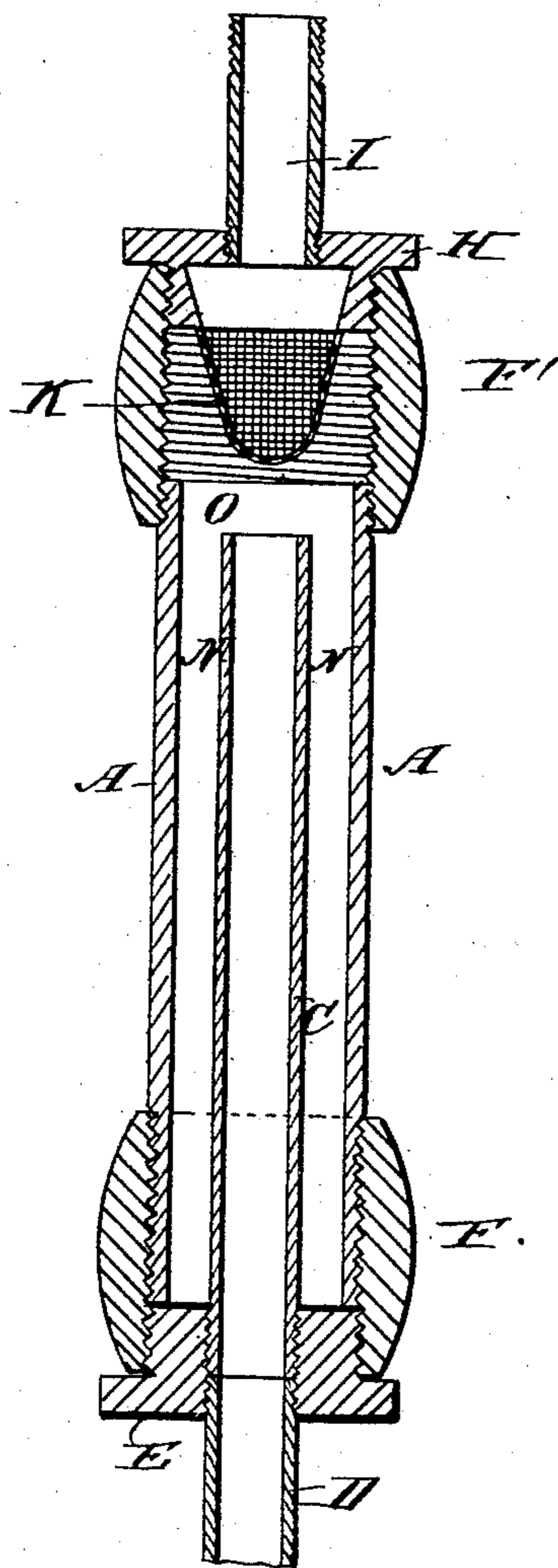
(No Model.)

C. W. HUFFMAN.

SAND ARRESTER FOR DRIVEN WELLS.

No. 328,222.

Patented Oct. 13, 1885.



WITNESSES:

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CHARLES W. HUFFMAN, OF RICHWOOD, OHIO.

SAND-ARRESTER FOR DRIVEN WELLS.

SPECIFICATION forming part of Letters Patent No. 328,222, dated October 13, 1885.

Application filed June 30, 1885. Serial No. 170,256. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WESLEY HUFFMAN, of Richwood, in the county of Union and State of Ohio, have invented a new and useful
5 Improvement in Sand-Arresters for Driven Wells, of which the following is a full, clear, and exact description.

My invention relates to that class of devices employed to prevent sand, gravel, or solid substances of any kind from being drawn into the valve-seat of a pump used in connection with a driven well; and the object of my invention is to construct an arrester for this purpose that will not interfere with the free working of the
10 well or lessen the flow of water thereto, but which will effectually intercept and prevent the passage of any solid substance of appreciable size; and this I accomplish by an attachment to the well-pipe, as hereinafter described, and set forth in the claims.
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Reference is to be had to the accompanying drawing, forming a part of this specification, which is a central vertical sectional view of my improved screen or strainer.

25 My sand-arresting attachment, which is placed just below the pump, consists of an outer inclosing-tube, A, within which there projects a continuation, C, of the well-pipe D, the parts C and D being united by the coupling E, upon the upper side of which the tube A rests, being secured thereto by the sleeve-coupling F.
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A coupling-piece, as H, carrying the nipper I, to which the pump is attached, is connected
35 to the upper end of the tube A by means of the threaded sleeve F'. To the under side of the coupling H, just above the open end of the pipe C, I preferably secure a cone-shaped strainer, K, that is formed from perforated
40 sheet metal, fine-meshed wire-cloth, or from any other suitable screening material.

From the construction described it will be seen that an annular chamber, as N, is formed about the pipe C within the tube A, above
45 which and below the screen or strainer K is the chamber O. This chamber N acts both as a vacuum-chamber and as a receptacle for any

sand, gravel, &c., raised by the action of the pump.

The pipe D having been driven to a water-bearing stratum, and a pump having been attached to the nipper I, my screen or strainer will operate to intercept any grains of sand, gravel, or other solid substance raised by the action of the pump, and cause such sand or
50 other substance to settle within the chamber N. If at any time the chamber N should fill up, it can easily be cleaned out by simply disconnecting the parts. The chamber O can be of any preferred size and length, and if of sufficient length the screen K will not be absolutely essential.
55

By placing my attachment near the pump and away from the bottom of the well I do not interfere with the flow of water to the well-chamber, and by constructing the device so that the solid matter will not return to the bottom of the pipe D, I prevent the filling or clogging of said pipe.
60

Having thus described my invention, I claim as new and desire to secure by Letters Patent—
70

1. The combination, with the water-pipes D and I, of the pipes A and C, united at their lower ends and forming the chambers N and O, substantially as described, and for the purpose specified.
75

2. The combination, with the pipe C, of the pipe A, of a larger diameter than the pipe C, and united to the same to form the chambers N and O, and of the couplings F' and H, substantially as described.
80

3. The combination, with the screen K, of the tube A and pipe C, forming the chamber N, substantially as and for the purpose specified.
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4. The combination, with the tube A, pipe C, and connections, as E and F, of a screen, as K, detachably connected to the tube A, substantially as set forth.

CHARLES W. HUFFMAN.

Witnesses:

WM. SCHMELZER,
B. P. HOLLINS.