

No. 861,859.

PATENTED JULY 30, 1907.

T. JOHNSTONE.  
PROSPECTING TOOL.  
APPLICATION FILED OCT. 29, 1906.

Fig. 1.

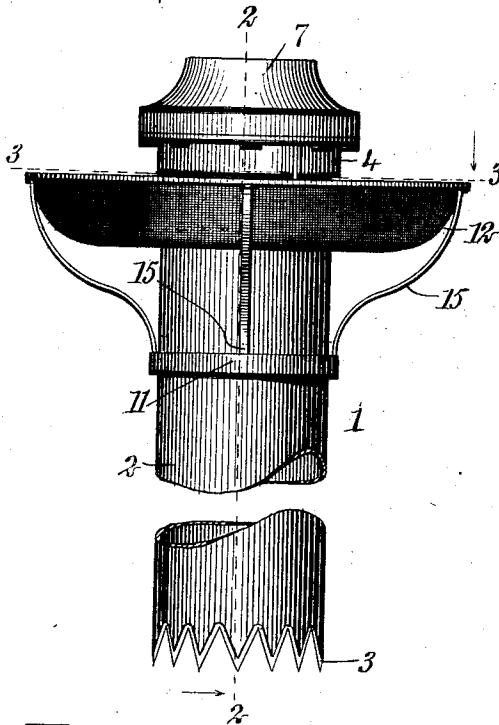


Fig. 2.

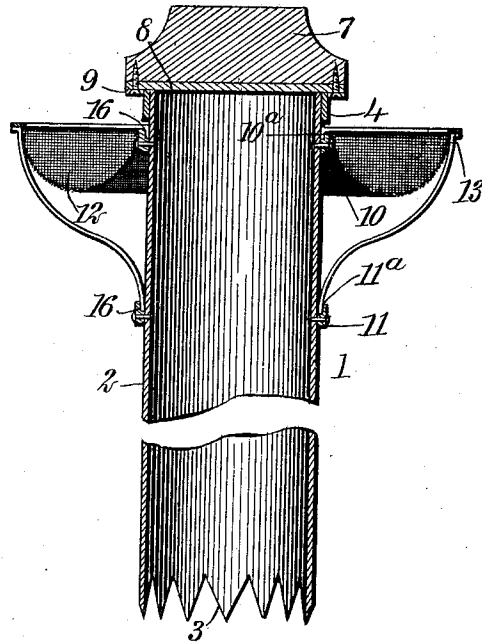


Fig. 3.

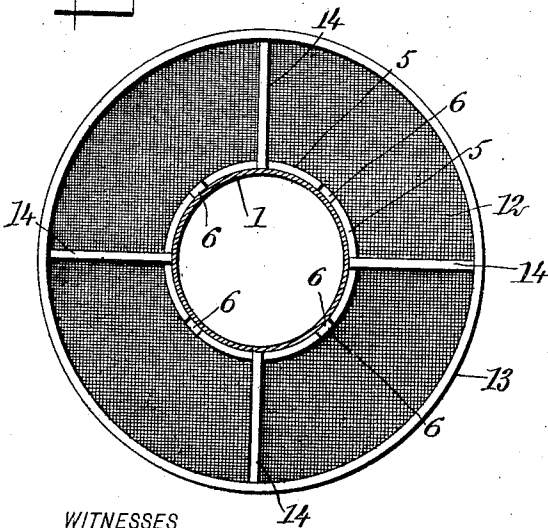
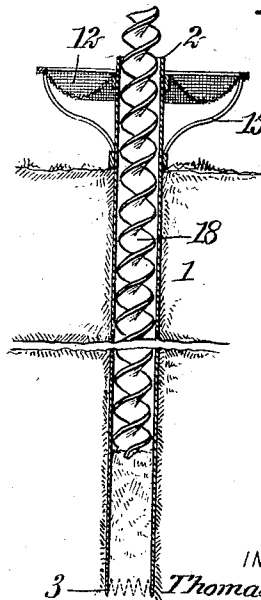


Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

THOMAS JOHNSTONE, OF MUSKEGON, MICHIGAN.

## PROSPECTING-TOOL.

No. 861,859.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed October 29, 1906. Serial No. 341,047.

*To all whom it may concern:*

Be it known that I, THOMAS JOHNSTONE, a citizen of the United States, and a resident of Muskegon, in the county of Muskegon and State of Michigan, have invented a new and Improved Prospecting-Tool, of which the following is a full, clear, and exact description.

This invention relates to prospecting tools such as used by miners in locating ore deposits.

It is intended to be especially useful for gold miners in locating gold deposits in ancient river beds or streams.

The object of the invention is to produce a tool of this class which may be readily operated to raise a quantity of the deposited earth, and which will afford means for quickly separating the solid portions of the earth from the water which is brought up with the earth.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the device, the lower portion of the same being represented as broken away; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; Fig. 3 is a cross section on the line 3—3 of Fig. 1 and showing the lower portion of the device in plan; and Fig. 4 is a vertical cross section showing the device in operation, certain parts being broken away and shown in section.

Referring more particularly to the parts, 1 represents the body of the tool, which consists of a cylinder or tubular casing 2, the lower extremity whereof is formed into teeth 3, which facilitates the casing being driven into the earth, in a manner which will be described more fully hereinafter. At its upper extremity, the tubular casing is provided with a reinforcing ring 4 which is formed in four sections 5, as indicated in Fig. 3, the ends of said sections being disposed apart so as to form slots 6, for a purpose which will appear hereinafter.

I provide a removable cap 7 which is adapted to be applied, when desired, to the upper extremity of the tubular case. The body of this cap may be of wood, or similar material, and having a facing plate 8 on its lower side. This cap is of circular form so as to fit the case, and at its outer edge the plate 8 is provided with an annular washer or keeper 9 which abuts against the outer face of the reinforcing ring 4 as shown in Fig. 2. A short distance below the reinforcing ring 4, I provide a rigidly attached basket ring 10 which consists simply of a collar having a rabbet 10<sup>a</sup> on its inner face. A similar collar 11, having a groove 11<sup>a</sup>, is attached to the case at the lower portion. These rings afford means for removably attaching an annular basket 12; this basket is formed of wire mesh attached to a frame 13, said frame

comprising an enlarged ring which has attached thereto radial arms 14 which extend inwardly toward the center of the ring and which may be four in number as shown in Fig. 3. Beneath these arms, curved braces 15 are provided, which are attached to the ring as indicated. At the inner extremities of the arms 14 and the braces 15, downwardly projecting inclined fingers 16 are formed, which are adapted to engage with the grooves of the rings 10 and 11. In attaching the basket to the case, the inner ends of the arms 14 are passed through the slots 6, as will be readily understood, and the entire frame is then shifted laterally so that the basket is locked against rising.

Within the case 1 an auger or boring tool 18 is received, in the manner shown in Fig. 4; this figure illustrates the manner in which the device operates. It should be understood that the tubular case is driven down into the bed of the stream or river to a sufficient depth to strike the gold-bearing earth. In driving it down, the cap 7 is applied to the end of the case, as suggested above. The basket is then applied and the auger inserted as shown. From time to time, the auger is withdrawn and the material raised thereby falls into the basket. It will be understood that this basket is of very fine mesh and permits the water to pass, but it holds the solid earth. In this way the earthy matter is conveniently separated from the water and when the basket becomes filled, it may be removed from the case as described, and its contents dumped into a suitable receptacle.

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

1. In a tool of the class described, in combination, a case adapted to be driven into the earth, a member operating therein and adapted to raise a quantity of earth, and a basket attached to the upper portion of said case and constituting a screen through which water may pass.

2. In a tool of the class described, in combination, a tubular case adapted to be driven into the earth, a boring tool operating therein, and an annular basket attached to the upper portion of said case and adapted to catch the materials removed by said boring tool.

3. In a tool of the class described, in combination, a tubular case adapted to be driven into the earth, a boring tool operating therein and affording means for raising material to the upper end of said case, and a detachable annular basket at the upper portion of said case and adapted to catch the material removed by said boring tool.

4. In a tool of the class described, in combination, a tubular case having a reinforcing ring at the upper end thereof and formed in sections whereby slots are formed between said sections, an annular basket adapted to be attached to said case and having members adapted to pass through said slots, said case having means for supporting said basket, and means for raising material within said case.

5. In a tool of the class described, in combination, a tubular case having rings attached to the upper portion thereof, an annular basket having arms adapted to engage said rings to support said basket therefrom, and means for raising material within said case.

6. In a tool of the class described, in combination, a tubular case having a reinforcing ring at the upper portion thereof whereby slots are formed at the side of said case, an annular basket having members adapted to pass through  
5 said slots, a basket ring attached to said case beneath said reinforcing ring and engaging said members to support said basket, said basket being rotatable whereby said members may be thrown out of alinement with said slots to lock said basket to said case, and means for raising material within said case.  
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7. In a tool of the class described, in combination, a tubular case, an annular basket, means for attaching said basket to said case at the upper portion thereof, braces ex-

tending downwardly from said basket, a ring attached to said case and adapted to engage the outer sides of said  
15 braces to support the same, a locking ring slidably mounted on said case and adapted to press against the inner faces of said braces to hold the same in engagement with said first ring, and means for raising material within said case.

In testimony whereof I have signed my name to this  
20 specification in the presence of two subscribing witnesses.

THOMAS JOHNSTONE.

Witnesses:

E. W. THAYER,  
JOHN E. THAYER.