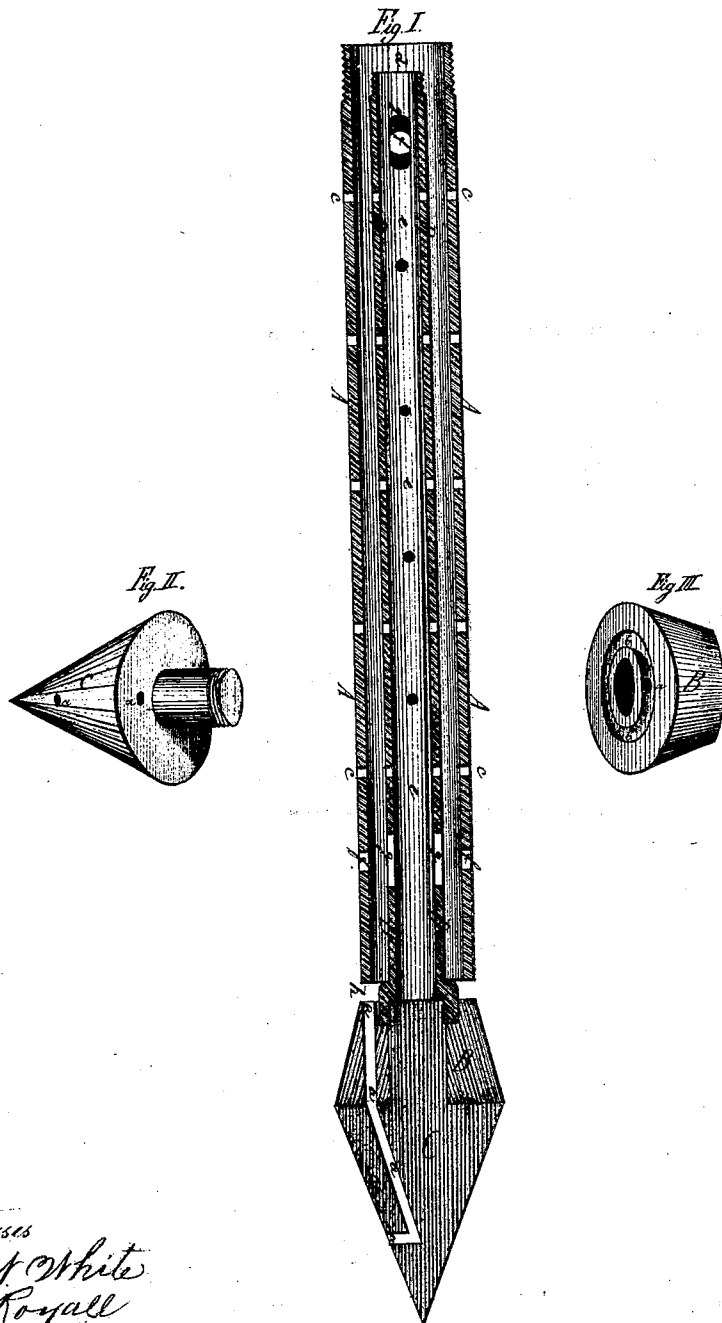


A. O. Brummel,

Well Tube.

NO. 95,878.

Patented Oct. 19. 1869.



Witnesses
H. H. White
R. D. Royall

Inventor
Augustus Oliver Brummel

United States Patent Office.

AUGUSTUS OLIVER BRUMMEL, OF MEMPHIS, TENNESSEE.

Letters Patent No. 95,878, dated October 19, 1869.

IMPROVEMENT IN DRIVEN-WELL POINTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, AUGUSTUS OLIVER BRUMMEL, of Memphis, in the county of Shelby, and State of Tennessee, have invented a Point and Lower Section in Driving-Well; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Figure 1 is a sectional view, displaying its construction.

C, the lower section of point.

D, inner pipe.

B, upper section of point.

a a a, air-passages in B and C.

b b, groove in section B.

c, holes in the outer pipe A.

d, male screw, to attach section of pipes in driving.

e, holes in the inner pipe D.

f f, pins to retain in position inner and outer pipes A D.

g g, slots through which the pins *f f* pass, controlling pipes A D, closing the holes *c e*, or opening them, at pleasure.

C and B, point made of steel, one-third larger than the pipe of well.

A D, the pipe perforated.

The nature of my invention consists in so constructing the point in two parts, the lower section of point C being attached to the inner pipe D, and the section of point B being loose, revolving on point C, it being placed around the shoulder to which pipe D is attached to section of point C.

The object in constructing the point in two parts, is to be able to create an air-passage to the point of the point, if it become necessary to remove the pipe from the ground after driving; admitting air below, doing away with the vacuum that otherwise would be created below the point, the air passing first through tubes *a a* in section of point B, thence through groove *b b*, thence through tubes *a a* in lower section of point C, thus furnishing air below point C, preventing suction, the securing of outer and inner pipes A and D

with the slots *g g* and screws *f f*, and the placing of slots *g* reversely, giving it (A and D) nearly an up-and-down motion, and while the pipe is being driven, the holes *c e* and the exposing of inner pipe are closed, preventing the sand entering the pipe, and when it is desired to ascertain the presence of water, it matters not how far the pipe may be raised.

The section A D can only open a given distance, bringing the holes *c e* in the outer and inner pipes A D, and exposing the inner pipe D a desired distance.

This lower section is attached to pipes, and driven the same as other driving-wells.

The point itself is one-third larger at its belly than the pipes, making a larger hole than the pipe itself.

To enable others skilled in the art to make and use this, my invention, I will proceed to describe its construction and operation.

I make this point conical, in two pieces, (one-third larger than the pipes,) to admit of constructing orifices or air-passages *a a a a* and grooves *b b*, that when it becomes necessary to remove the pipe from the well, all suction is done away with; and another reason in it being constructed in two parts is, when it is driven, if the point comes in contact with any hard substance, it has a rotary motion every time it is driven, thus being able to free itself from such obstruction, the pins and slots that allow the pipes B C to open a given distance, and allow them to free themselves of sand, by the sand passing out directly above the point. The point is made of steel.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The point C B, made in two sections, with the air-passages *a a a a*, in combination with *b b*, as described above, for the purpose there stated and described.

2. The point C B, in combination with the pipes A D, constructed as above described, and for the purpose therein contained and stated.

AUGUSTUS OLIVER BRUMMEL.

Witnesses:

W. W. WHITE,

R. D. ROYALL.