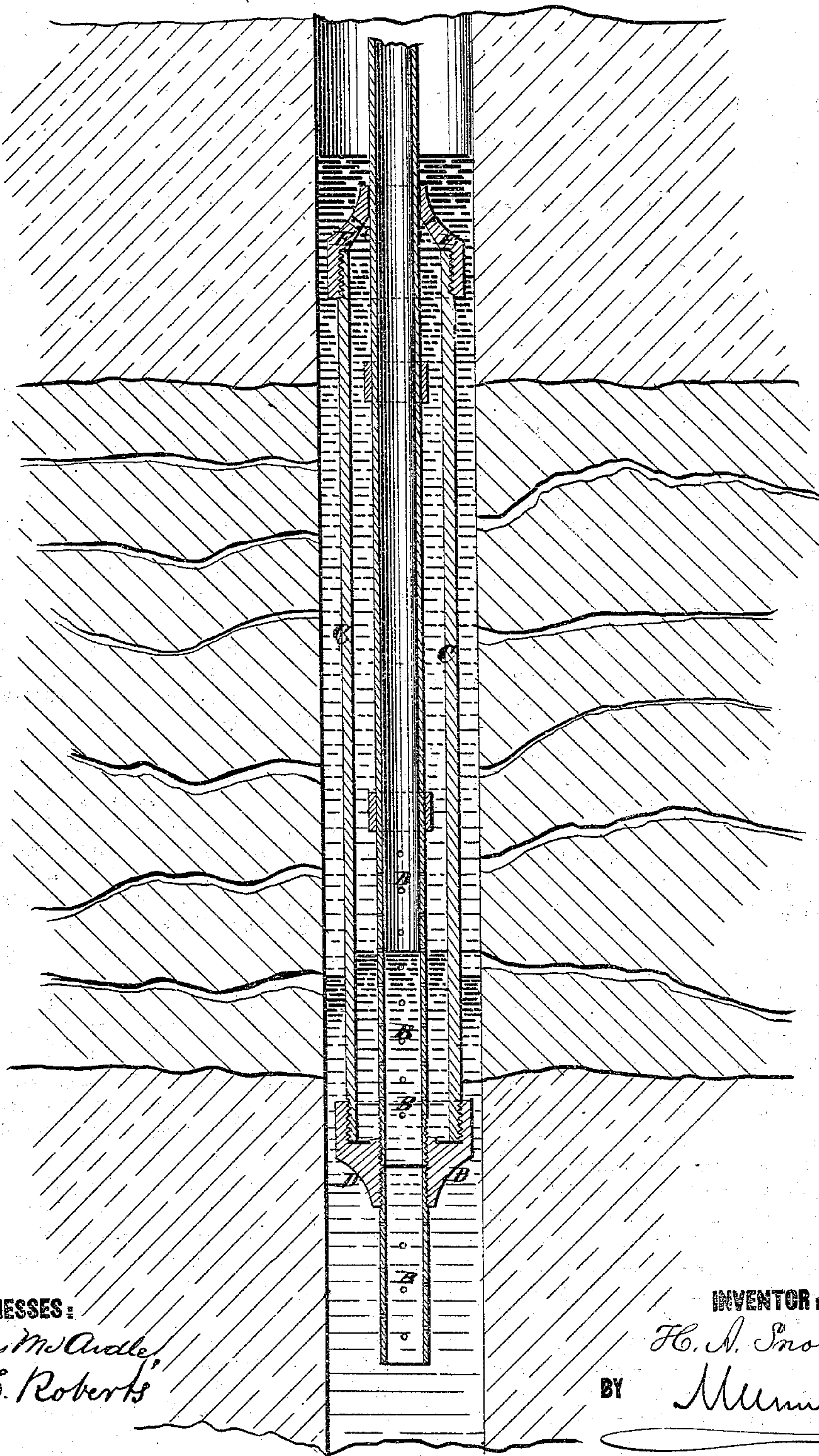


H. A. SNOW.
Oil-Rock Preservers.

No. 154,096

Patented Aug. 11, 1874.



WITNESSES:

Francis McAuley
Alex. F. Roberts

INVENTOR:

H. A. Snow

BY

Mumford

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY A. SNOW, OF ST. PETERSBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND WESLEY CHAMBERS, OF SAME PLACE.

IMPROVEMENT IN OIL-ROCK PRESERVERS.

Specification forming part of Letters Patent No. **154,096**, dated August 11, 1874; application filed June 13, 1874.

To all whom it may concern:

Be it known that I, HENRY A. SNOW, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented a new and useful Improvement in Oil-Rock Preserver, of which the following is a specification:

My invention consists of a case or jacket surrounding the working barrel or standing barrel of an oil-well pump, and arranged relatively to the oil-bearing rock, to prevent the oil from being drawn below the upper portion of the rock, whereby the obstruction of the veins, crevices, and escape-passages of the rock by paraffine will be prevented, as the deposit and obstruction only result when the oil drips and drains over the surfaces of the pores and veins.

The drawing is a sectional elevation of a portion of a well, showing the application of my invention.

A represents the pump-tube, into which the oil and water are to flow through the perforations B in the ordinary manner. C is a case, with which I propose to surround the perforated portion of the tube, or a portion of it, said case extending from top to bottom of the oil-bearing rock, or further, if it may be required, and connected to the pump-tube or resting on the bottom of the well, but perforated or otherwise arranged to admit the water into the lower portion of it.

The pump-tube will be arranged to draw from about the level to which a column of oil outside of the case, and as high as the top of the oil-bearing rock, will raise a column of water inside of the case, so that in case the oil-column is drawn as low or lower than the top of the rock, the pump will cease working until the oil rises and flows over or through the top of the case to the pump. Thus the rock

crevices will always be kept full, and the flow and drip along the rock surfaces, by which the choking of the veins with paraffine is caused, will be prevented.

It is essential to the successful operation of this plan that the lower portion of the case be surrounded with water as a packer or cut-off to prevent the oil from flowing into the pump from below the case, which would allow the pump to drain out the oil; therefore, in case there is no water, I pour in sufficient to rise up in the pump till it will pump water; but in almost all cases there is sufficient water found in the well.

By this plan I not only keep the well up to its original capacity, but I save the necessity of exploding torpedoes in the well from time to time to remove the obstructions.

The case may be connected to the well-tube by the screw-caps D E, or by other means, or not at all, as may be preferred.

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

1. An oil-rock-preserving tube, C, incasing the pump in the manner described, whereby the water-column below the influence of the suction will maintain the oil, or oil and water, as high as the top of the oil-rock, or thereabout, to protect it from paraffine deposit, substantially as specified.

2. A water-packing, in combination with the oil-rock-preserving case, to prevent the flow of the oil to the pump under or through the lower portion of the case, substantially as specified.

HENRY A. SNOW.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.