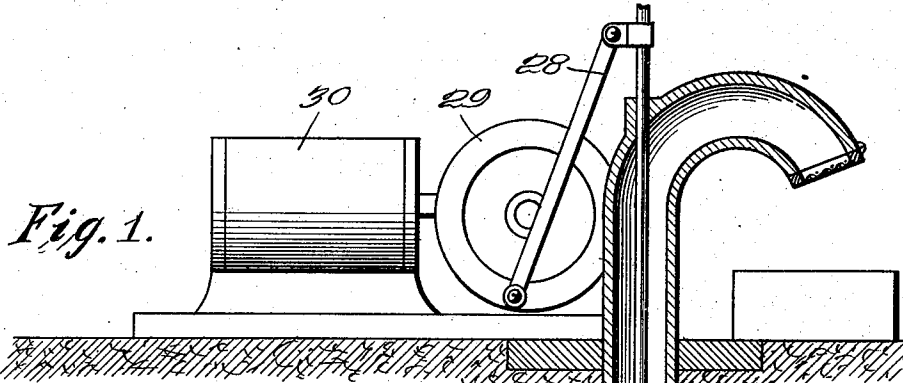
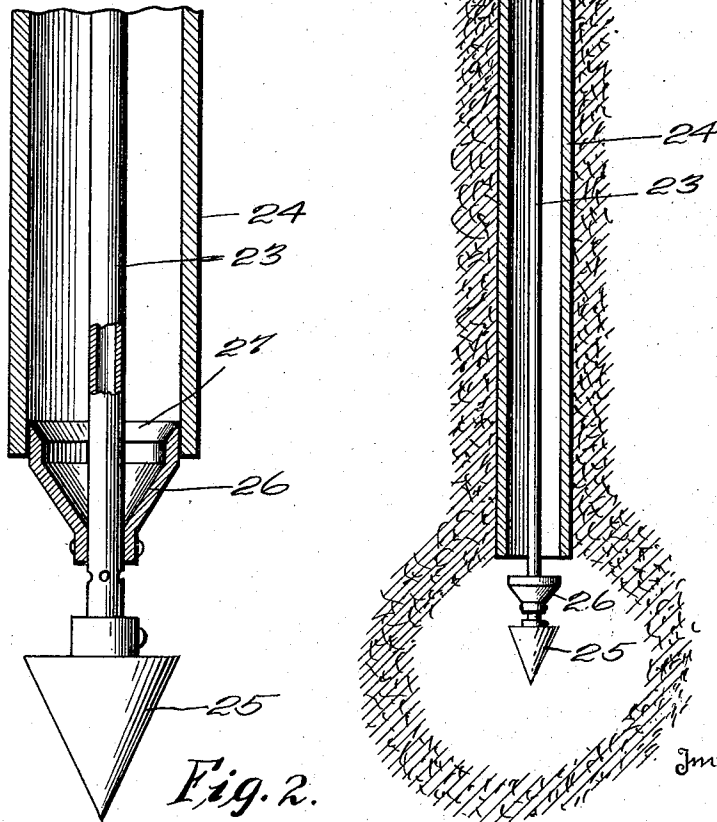


H. P. RHODES.
MINING APPARATUS.
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1,217,066.

Patented Feb. 20, 1917.



Witnesses.

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MINING APPARATUS.

1,217,066.

Specification of Letters Patent.

Patented Feb. 20, 1917.

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To all whom it may concern:

Be it known that I, HAMPTON P. RHODES, a citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Mining Apparatus, of which the following is a specification.

My invention relates to a mining apparatus.

The principal object of the present invention is to provide an apparatus for mining sulfur and other minerals, such as oil, salt, borax, etc.

A further object of this invention is to provide means for thoroughly and effectively heating the fluids that are used in the process of mining.

Another object of the invention is to provide a fluid conducting pipe and an attachment associated therewith for sinking the end of the pipe in the mine.

Still another object of the invention is to provide a cutting attachment for the above mentioned pipe whereby to loosen or scrape any of the material that adheres to the well casing during the mining operation.

An additional object of the invention is to provide an apparatus of the above mentioned type that is simple in construction and consists of few parts, is inexpensive to manufacture and which may be placed on the market at a comparatively low cost.

The above and other objects and advantages of my apparatus will fully appear from the following description taken in connection with the accompanying drawings and be explicitly set forth in the appended claims.

In the drawings,

Figure 1 is a sectional view through the casing that extends into the mine and showing the fluid conducting pipe extending therein and the parts that operate with the same; and

Fig. 2 is a view of the lower end of this casing and fluid conducting pipe and showing the attachments carried thereby on an enlarged scale.

Referring more particularly to the drawings, the numeral 23 designates a fluid conducting pipe which communicates with any suitable means for forcing fluids, such as hot air and hot water, through the pipe.

This pipe extends longitudinally and centrally of a well casing which is indicated by the numeral 24.

Detachably engaged with the lower end of the pipe 23 is a tapering anchoring member 25 which is for the purpose of sinking the end of the pipe 23 in the strata.

The numeral 26 denotes a hollow frusto-conical knife or scraping member which is beveled at its upper edge to provide a cutting edge 27. The pipe 23 extends through this member 26 and snugly receives the lower end of the same. The purpose of this knife 26 is to scrape or loosen any material that adheres to the casing 24 during the mining operation.

When it is desired to sink the end of the pipe 23 in the strata or to remove the material that has adhered to the interior of the casing 24, the pipe 23 is reciprocated by means of a pitman rod 28 which is connected to a fly wheel 29 of an engine 30 and which is detachably engaged with the upper end of the pipe 23. It will be seen that during the reciprocation of the pipe 23 the material that is scraped from the well casing by the cutting edge 27 is caught within the frusto-conical member 26 from which it may be removed by simply hoisting the same to the top of the well casing.

Having described the preferred embodiment of my invention, I desire it to be understood that the same is susceptible to various modifications and alterations that may fall within the scope of the appended claims.

What is claimed is:

1. The combination with a well casing, of a fluid conducting pipe extending within the same, and a hollow frusto-conical receptacle mounted on the pipe and having its upper edge beveled, the beveled edge contacting with the interior of the well casing, said pipe serving to close the lower end of the frusto-conical receptacle.

2. The combination with a well casing, of a pipe extending within the same, and a receptacle secured to the pipe having a beveled upper edge, the beveled upper edge contacting with the interior of the well casing to cause any material that adheres to the well casing to fall within the receptacle.

In testimony whereof I affix my signature.

HAMPTON P. RHODES.