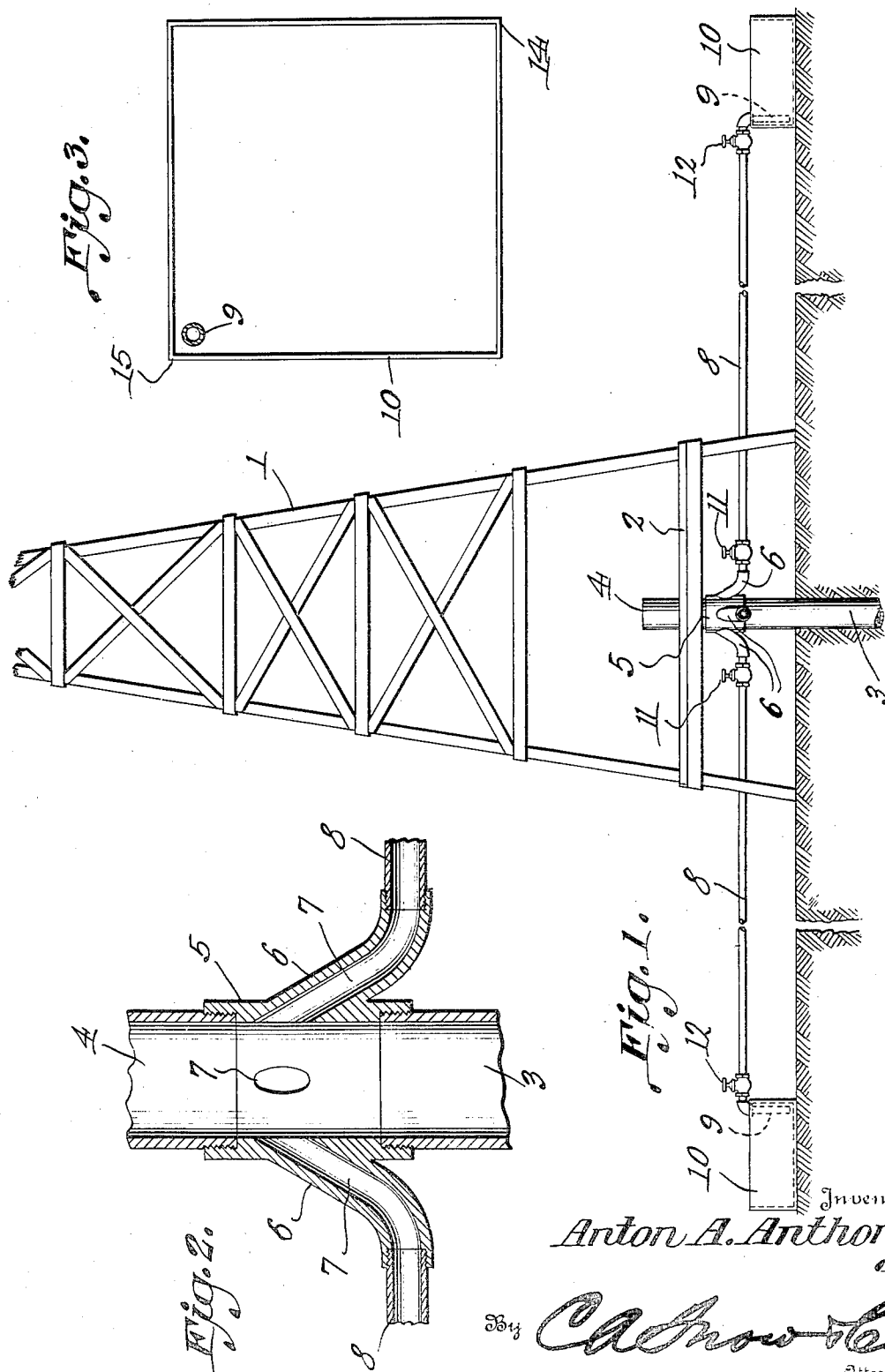


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WELL FIRE EXTINGUISHER

Filed Dec. 18, 1924



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ANTON AXEL ANTHONY, OF MEMPHIS, TENNESSEE.

WELL FIRE EXTINGUISHER.

Application filed December 18, 1924. Serial No. 756,769.

To all whom it may concern:

Be it known that I, ANTON AXEL ANTHONY, a subject of the King of Norway and a declarant citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Well Fire Extinguisher, of which the following is a specification.

This invention aims to provide a simple means whereby a fire burning at the outlet of an oil well may be extinguished.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that sort to which the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in elevation a device constructed in accordance with the invention, parts being broken away; Figure 2 is a vertical section taken through the injector; and Figure 3 is a top plan of one of the tanks.

In the accompanying drawings, the numeral 1 designates an oil well derrick, the platform appearing at 2. The oil flows from the well through a lower pipe section 3 and an upper pipe section 4.

An injector is provided, the same ordinarily including a tubular coupling 5, with which the ends of the pipe sections 3 and 4 are assembled, by threading or otherwise. The coupling 5 has inlets 6 forming passages 7, the passages communicating with a means for supplying fire-extinguishing material.

The means for supplying the fire-extinguishing material may consist of a plurality of laterally-extended conduits 8 connected at their inner ends to the inlets 6 of the injector, the outer ends of the conduits being downwardly extended into tanks 10, near to one corner 15 of each tank. The tanks 10 are located remotely with respect to the well pipe 3—4. Valves 11 are located in the conduits 8 and are disposed closely adjacent to the well pipe 3—4. Valves 12 are interposed in the conduits 8 and are located remotely with respect to the well pipe 3—4, the valves

12 ordinarily being located close to the tanks 10.

In practical operation, fire-extinguishing material of any sort is placed in the tanks 10. If no more efficient fire-extinguishing material is at hand, a light and freely flowing sand may be used, the sand being piled on a slant, from the corner 14 of the tank 10 toward the corner 15, so that there is little or no sand immediately under the depending end 9 of the conduit 8, the sand being fed under the end 9 of the conduit 8, so that sand may be sucked readily through the conduit 8. Although the sand has been commented upon at some length, it will be understood that any kind of fire-extinguishing material may be used.

The valves 11 and 12 being opened, the flow of oil through the pipe sections 3 and 4 draws the fire-extinguishing material through the conduits 8 and through the inlets 6 into the mass of flowing oil, and a fire burning at the mouth of the well will be extinguished.

In the ordinary operation of the device, both the valves 11 and the valves 12 are closed. As the driller approaches what he believes to be an oil-bearing stratum, the valves 11 are opened, and if a fire occurs the valves 12 are opened, the valves 12 being located at so great a distance from the well pipes 3—4 that the valves 12 may be manipulated by an operator, in haste.

Preferably, as shown in Figure 2 of the drawings, the inlets 6 are disposed at an acute angle to the axis of the coupling 5, so that the flowing oil may draw the fire-extinguishing material properly through the parts 8 and 7, without permitting the oil to flow through the parts 7 and 8 to the tank 10, as might be the case if the passages 7 were located at right angles to the coupling 5.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, the combination, with a well-pipe and a source of supply for fire-extinguishing material, of a pipe line leading from said source, and having communication with said well-pipe through means which constitute, with said well-pipe, an injector, whereby fire-extinguishing material is drawn into said well-pipe by the fluid passing therethrough.

2. A device of the class described, constructed as set forth in claim 1, and further

characterized by the fact that the source of supply comprises a tank, a conduit communicating with the tank and with the injector, and a valve under the control of an operator and interposed in the conduit. 15

3. A device of the class described, constructed as set forth in claim 1 and further characterized by the fact that the source of supply comprises a tank located remotely from the well-pipe, a conduit communicating with the tank and with the injector, and valves under the control of an operator and interposed in the conduit, one valve being 20

located closely adjacent to the well-pipe, and the other valve being located remotely with respect to said pipe.

4. In a device of the class described, the combination with a well-pipe, of a tubular member carried thereby and provided with a passage through which fire-extinguishing material is drawn by the flow through the pipe, and means for supplying fire-extinguishing material to the passage.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

ANTON AXEL ANTHONY.