A. F. JENKINS.

PORTABLE ACETYLENE GENERATOR AND TORCH.

APPLICATION FILED DEC. 15, 1909.

960,643. Patented June 7, 1910.

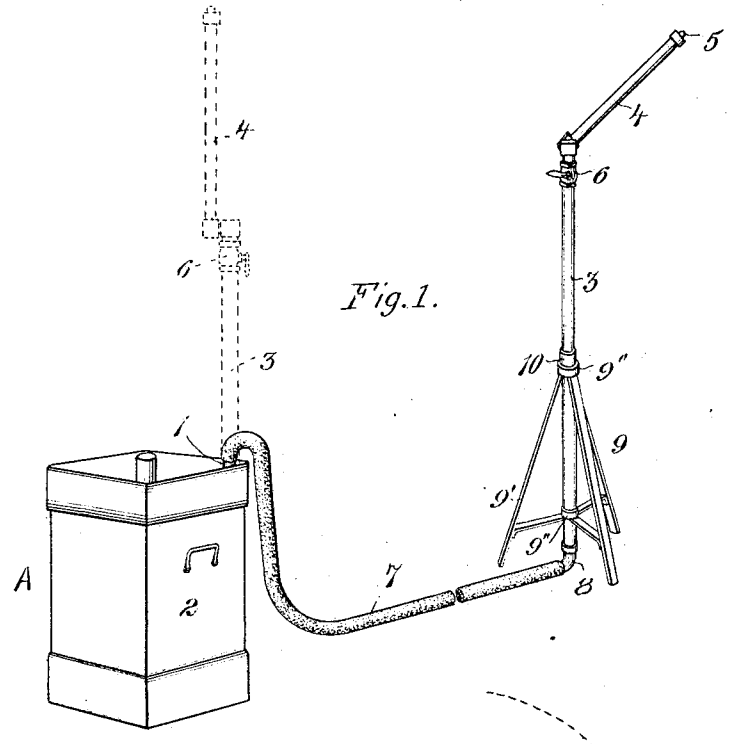

Fig. 1.

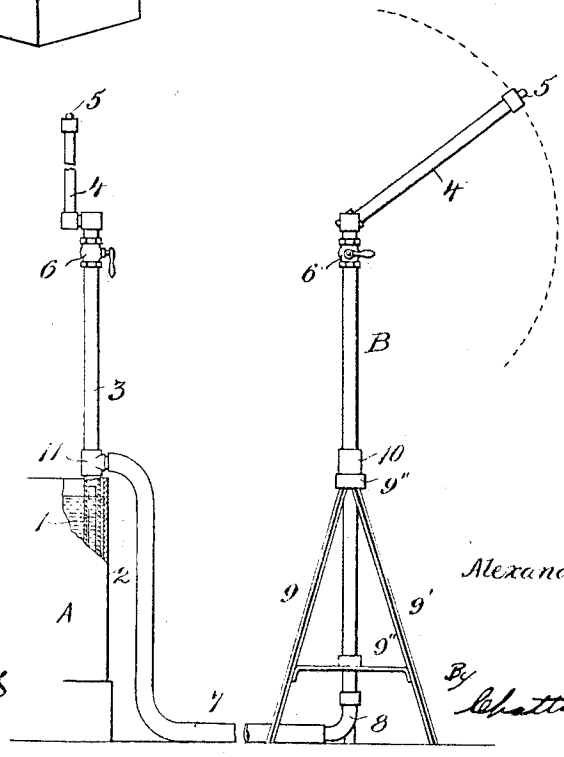

Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

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PORTABLE ACETYLENE GENERATOR AND TORCH.

960,643. Specification of Letters Patent. Patented June 7, 1910.

Original application filed May 10, 1907, Serial No. 372,972. Divided and this application filed December 15, 1909. Serial No. 533,301.

To all whom it may concern:

Be it known that I, ALEXANDER F. JENKINS, a subject of the King of Great Britain, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Portable Acetylene Generators and Torches, of which the following is a specification.

The present invention is a division of my pending application Serial No. 372,972, filed May 10, 1907, and it relates to a burner or light attachment for portable acetylene generators adapted for use in building or construction work, various engineering operations, life saving service, circuses and public celebrations where very powerful and economical illuminants are required.

The invention has for its principal objects to provide a burner attachment which is especially designed for generators of the character referred to so as to be reliable and efficient in service, readily manipulated and adjusted for throwing the light in any desired direction, and durable and substantial in construction to effectively stand the wear and tear to which contractors' lights are subjected.

Another object of the invention is the provision of a novel means for mounting the burner attachment on the generator so that no special gas tight joints are required, although the attachment can be easily and quickly applied or removed in putting the apparatus in order for use or in taking it apart for shipment or transportation and although the burner can be freely turned at all times for directing the rays of light to different points.

An additional object is the employment of a burner extension in the nature of a burner standard supported in a tripod of its own and connected by a hose or flexible conduit with the burner standard of the generator or the outlet thereof so that a light can be provided at a point more or less remote from the generator that supplies the gas, the purpose being to furnish one or more lights by a single generating unit and to provide for a greater portability of the light or lights independently of the generator.

With these objects in view and others, the invention consists of the various novel features of construction and arrangement of parts, which will be more fully described hereinafter and pointed out with particularity in the appended claims.

In the accompanying drawings, which illustrate an embodiment of the invention in one of its aspects, Figure 1 is a perspective view of the apparatus with the burner standard in use as an extension light. Fig. 2 is a fragmentary side view of the generator with its burner standard equipped with an extension attachment to provide a plurality of lights from a single generator.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawings, A designates generally the acetylene generator, the details of which will not be here described as reference can be made to my application hereinbefore mentioned for a more complete understanding of the generator; suffice it to say that the gas, which flows as soon as the burner valve is opened and generates automatically as long as the light burns, is delivered by an upright outlet pipe 1 that connects with the gas generating chamber (not shown) in the tank 2 and rises from the bottom of the latter with its upper open end terminating above the maximum water level of the tank, as clearly shown in Fig. 2. This outlet pipe, which forms the inner or fixed section of the burner standard, has telescopically fitted thereover the outer section or burner standard proper, designated by 3. This part 3 is a section of pipe somewhat longer and of larger diameter than the outlet pipe 1 so as to project considerably above the latter and loosely slip vertically on and off the same without requiring any fastenings or gas tight joints, as the water in the tank forms a seal between the telescoping portions of the pipes. The pipe 3 carries at its upper end a swinging burner 4 which is provided with a tip 5 that delivers the gas for the flame, the supply of gas being opened or cut off by a valve 6 in the standard 3. By mounting the standard in this manner it can be turned freely about the pipe 1 as an axis for throwing the flame in any direction and by swinging the burner on its pivot in a vertical plane the flame can be directed horizontally and upwardly or downwardly so as to light up any desired area where work is carried on.

When the light is to be used at a point some distance from the generator A, a hose extension 7 may be applied to the upper end of the pipe 1, as shown in Fig. 1, and connected by a coupling 8 with the burner standard 3 which is portably supported in a tripod 9 or equivalent device. The tripod consists of legs 9′ to which are secured guide rings or sleeves 9″ disposed one over the other for receiving the burner standard, the latter having a coupling 10 which forms a shoulder that rests upon the upper ring 9″ to rotatably support the standard on the tripod.

Instead of connecting the extension hose directly to the pipe 1, the burner standard for the generator may be provided with a coupling 11 for attachment with the hose, as shown in Fig. 2, and in this case one or more burner standards B are connected with the hose at a distance from the generator and its standard. The advantage of this form of the device is that a plurality of more or less widely separated lights may be used to illuminate the same area of work from different points or different areas of the work, all from a common generator, and furthermore the lights are independently movable to throw the light rays at any desired part of the work.

The pipe standard or burner attachment of the generator forms a quickly removable coupling between the hose and generator to permit the latter to be easily converted for use with or without the hose attachment, and it also allows the hose to be moved around the generator to different points with perfect freedom while the generator remains *in situ*, without the hose kinking or breaking at the end nearest the generator, as would be the case if the pipe standard in the tank were not free to turn. In other words, the pipe standard forms a swivel joint between the hose and generator.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation, will be readily appreciated by those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood, that the apparatus is merely illustrative, and that various changes may be made, when desired, as are within the scope of the claims.

Having thus described my invention, what I claim is:

1. The combination of a water-containing tank, a pipe arranged in the tank, a generator supplying gas to the pipe, a burner pipe removably and rotatably mounted on the first pipe and extending into the tank and held in upright position by the first pipe, and a flexible conduit connected with the burner pipe.

2. An out-door acetylene lighting apparatus comprising a generating device including an outlet pipe, a burner, means for rotatably and detachably supporting the burner on the device, said means comprising a straight pipe loosely fitted over and maintained upright by the outlet pipe and receiving gas therefrom, said straight pipe and burner being integrally removable from the device.

3. An out-door acetylene generating and lighting apparatus comprising a generator tank having an outlet pipe terminating at the top of the tank and surrounded by water, a flexible hose outside the tank, a straight pipe on one end of the hose assembled vertically on and telescoped over the outlet pipe and freely rotatable thereon at all times to form a quickly connected and detachable swivel joint between the hose and outlet pipe, and a burner standard attachment on the outer end of the hose and including a stand having a bearing in which the burner standard is rotatably mounted.

4. An out-door acetylene generating and lighting apparatus comprising a generator tank having an outlet pipe terminating at the top of the tank and surrounded by water, a second pipe loosely assembled over and extending the full length of the outlet pipe, a hose connected with the second pipe at the top of the tank and extending downwardly at the outside thereof and adapted to rest on the ground, a burner standard connected with the outer end of the hose, and a support for portably holding the standard.

5. An outdoor acetylene generating and lighting apparatus comprising a generator tank, an outlet pipe standard supported by and portable with the tank, a burner movably mounted on the standard, said standard including a coupling at a point above the tank, a hose having one end connected with the coupling and extending downwardly at the outside of the tank to rest on the ground, a burner standard connected with the outer end of the hose, and a portable device remote from the tank and supporting the burner standard connected with the outer end of the hose.

6. An outdoor acetylene generating and lighting apparatus comprising a generator tank, an outlet pipe standard rising out of the tank, a burner on the upper end of the standard, said standard including a coupling located at the top of the tank, a flexible conduit connected with the coupling and extending along the outside of the tank to rest on the ground, and a torch device connected with the outer end of the conduit.

7. An outdoor acetylene generating and lighting apparatus comprising separate portable devices, one device consisting of a gen-

erator and the other a supporting frame, burner standards on the devices, one receiving gas directly from the generator, and a flexible conduit connecting the standards together to supply gas to the frame-supported standard from the generator through the other standard and conduit.

8. The combination of a generator tank, a fixed upright outlet pipe mounted thereon, a freely rotatable pipe of larger diameter extending longitudinally over the outlet pipe in telescoping relation thereto and freely slidable vertically on and off the same, a hose having one end attached to the second pipe, said second pipe forming a swivel joint between the hose and outlet pipe, and a portably supported burner attached to the other end of the hose.

9. The combination of a burner standard in the form of an inflexible pipe, a shoulder thereon at a point intermediate its ends, a portable supporting device in which the lower portion of the standard is mounted and on which the said shoulder bears, said device including spaced members through which the standard extends to be supported upright thereby, and a flexible conduit connected with the lower end of the standard for supplying gas thereto.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER F. JENKINS.

Witnesses:
A. THOMPSON,
E. DELAHAY.