

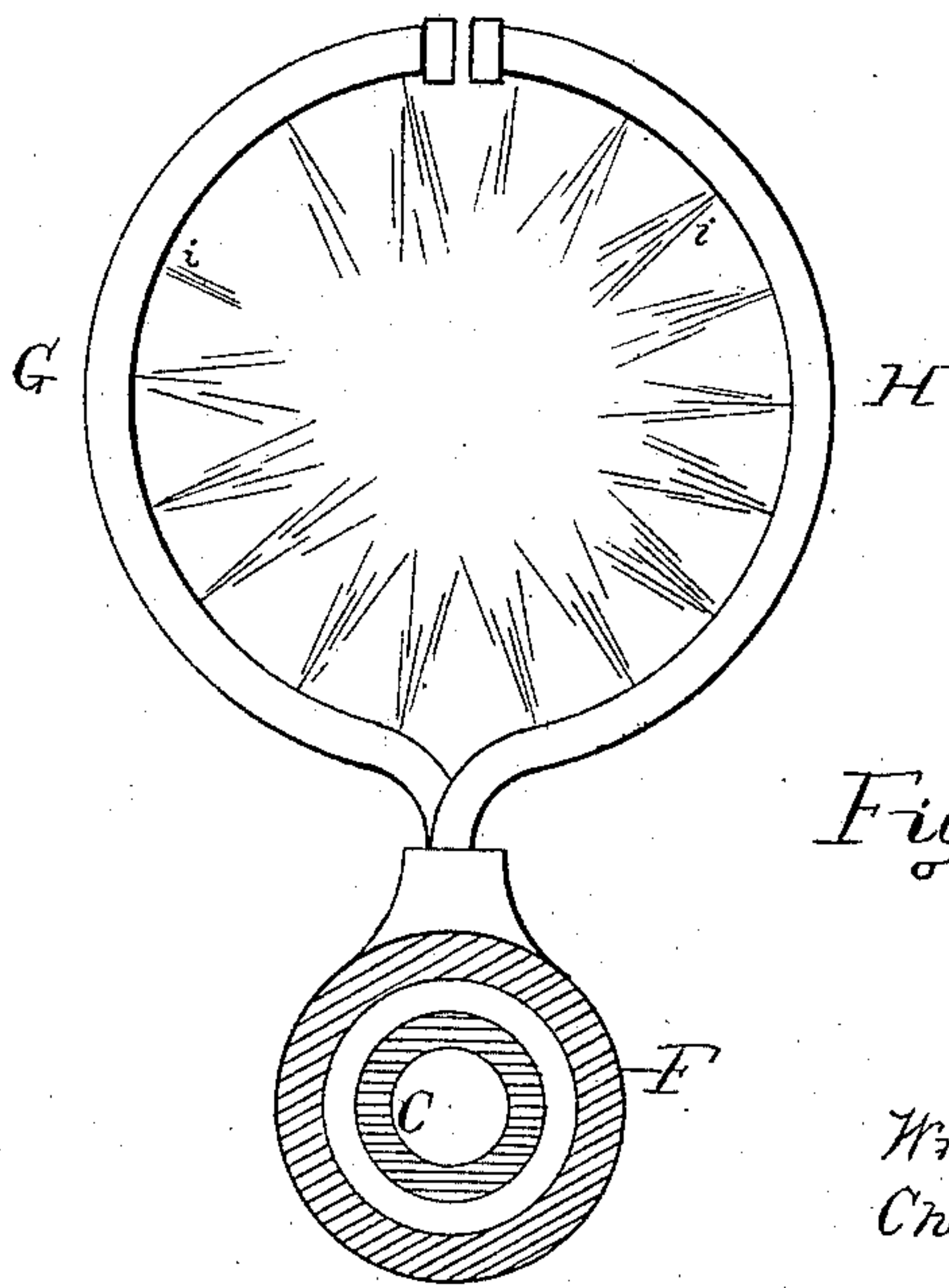
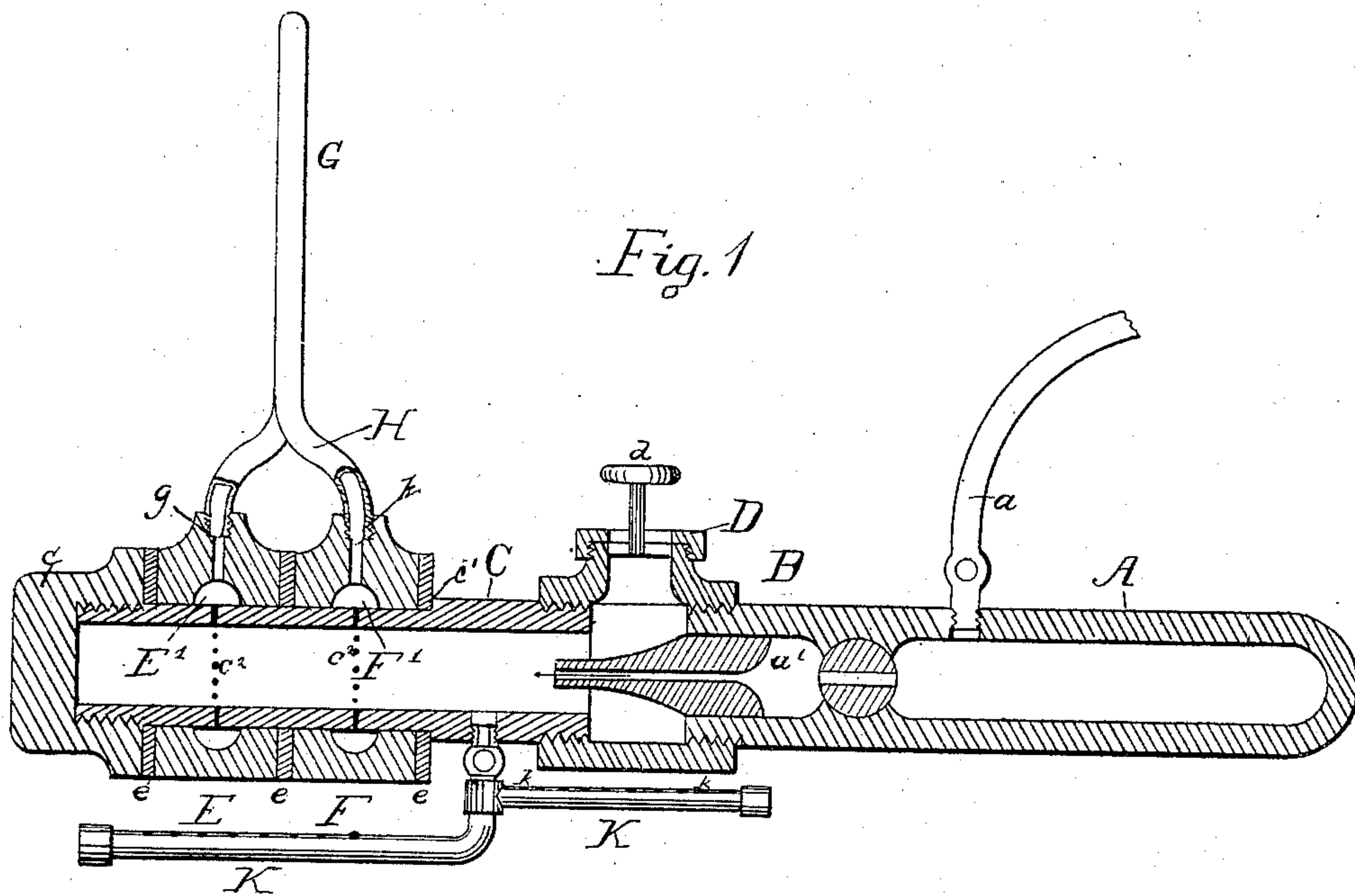
(No Model.)

W. A. HOEVELER & C. KELLER.

HEATING AND SOLDERING IMPLEMENT.

No. 316,785.

Patented Apr. 28, 1885.



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WILLIAM A. HOEVELER AND CHARLES KELLER, OF PITTSBURG, PENNSYLVANIA; SAID KELLER ASSIGNOR TO SAID HOEVELER.

HEATING AND SOLDERING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 316,785, dated April 28, 1885.

Application filed August 28, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM A. HOEVELER and CHARLES KELLER, both of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Heating or Soldering Implements; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention has relation to portable heating or soldering devices, and our invention is intended, primarily, for the purpose of heating the joint of a pipe during or preparatory to soldering, wiping, or screwing up the same.

Our invention has for its object the provision of means whereby a pipe or other object may be heated on all sides—that is, upon a line surrounding it at any point—simultaneously and equally through the medium of a gaseous flame; and to this end our invention consists in the novel construction, combination, and arrangement of parts hereinafter described and specifically claimed.

Referring to the accompanying drawings, illustrating our improvement, wherein Figure 1 is a longitudinal sectional view, and Fig. 2 a cross-section, A designates a section of pipe closed at one end and screw-threaded at the other, where it is screwed into a coupling, B. The section A forms the handle of the implement, and is provided with a flexible tube, *a*, by means of which oil, benzine, gas, or other burning-fluid is conveyed to its interior.

C designates a second section of pipe of about the same diameter as the section A, and screw-threaded at both ends, one end being screwed into the coupling B, the other end being closed by a screw-threaded cap, *c*. An air-valve, D, having a hand-wheel, *d*, is arranged at one side of the coupling B, and the section A is provided with a nipple, *a'*, which projects through the coupling B and into the section C, the interior orifice of the latter being slightly contracted a short distance from its end, the arrangement of the coupling, the two sections of pipe, and the air-valve being

substantially the same as that of an ordinary water-injector.

E and F designate, respectively, two blocks or collars, which are fitted upon the section C, and are held in position thereon by a shoulder, *c'*, and the screw-cap *c*, packing-rings *e e e* being placed on each side. Each of the blocks or collars E and F is formed with an interior groove or channel, (lettered E' F', respectively,) and the section C has a number of holes, *c'' c''*, through which the gas or other burning-fluid which may be employed passes to the channels E' and F', and from thence to the burners G and H through ports *g* and *h*. Said burners are composed of a section of small pipe in the shape of a semicircle, and are provided on their inner or concave sides with perforations *i i*, through which the gas or fluid escapes and burns.

It will be observed that the blocks E and F are secured from moving lengthwise of the section C by the shoulder *c'* and the cap *c*, but that they are capable of being revolved upon said section as upon a center, thus permitting of the burners G H being opened or closed to embrace and surround the object which it is desired to heat.

Upon the lower side of the section A is attached a supplemental burner, K, that projects alongside of the coupling B and section C, and is provided with holes *k k*, through which gas or fluid is permitted to flow and burn when the apparatus is in operation, the object of such burner being to heat the gas or fluid as it passes into the section C, causing it to expand and vaporize and (where a fluid such as naphtha is used) rendering it in condition for burning at the burners G H.

It is to be noted that where a considerable surface is to be heated the number of pivoted burners on section C may be increased in number without departing from the spirit of our invention.

While we have mentioned gas as a fluid which may be used in connection with the described implement, it will probably be found more expedient to connect the section A by the tube *a* with a tank or reservoir of naphtha or other similar fluid, which will become vaporized by the heat of burner *k* and issue in

gaseous form from the burners G H, or the section A may be arranged to contain the naphtha or other fluid which it is desired to use.

The operation of our invention is as follows:

5 When it is desired to heat any body—say, for instance, a section of pipe or the joint of a continuous line of pipe—the burners G H are spread apart a sufficient distance to permit of the pipe passing between their ends. Then they
10 are closed together, completely surrounding the pipe, and the gas or fluid is turned on and ignited. When a sufficient degree of heat has been obtained, the burners are spread apart, so as to permit of their removal.

15 The proportion of air admitted to the burner may be readily regulated by means of the air-valve *d*, and such other valves and cocks as are found necessary or useful may be employed in whatever position they may best serve their
20 purpose.

Having described our invention, we claim—

1. In an implement for heating exterior surfaces, the combination, with a chamber or pipe for the reception of gas or burning-fluid, of
25 two burners pivoted thereupon and adapted to be moved toward one another, substantially as described.

2. In a heating implement, the combination of a section of pipe forming a chamber for the reception of gas or burning-fluid with two
30 semicircular burners secured in collars surrounding said chamber and adapted to be revolved thereupon, substantially as described.

3. The combination, with the perforated gas or fluid chamber C, of the block or collar E,
35 pivoted upon said chamber and provided with an internal groove, E', port *g*, leading to a burner, G, and openings *c*² *c*² *c*², opening into the said chamber, substantially as described.

4. The combination of sections A and C,
40 coupling B, having air-valve D, collars E and F, placed upon the section C and movable thereon and provided with grooves E' F', with burners G and H, substantially as described.

In testimony that we claim the foregoing as
45 our own we have hereto affixed our signatures in presence of two witnesses.

WILLIAM A. HOEVELER.
CHARLES KELLER.

Witnesses:

LOUIS MOESER,
JOS. B. CONNOLLY.