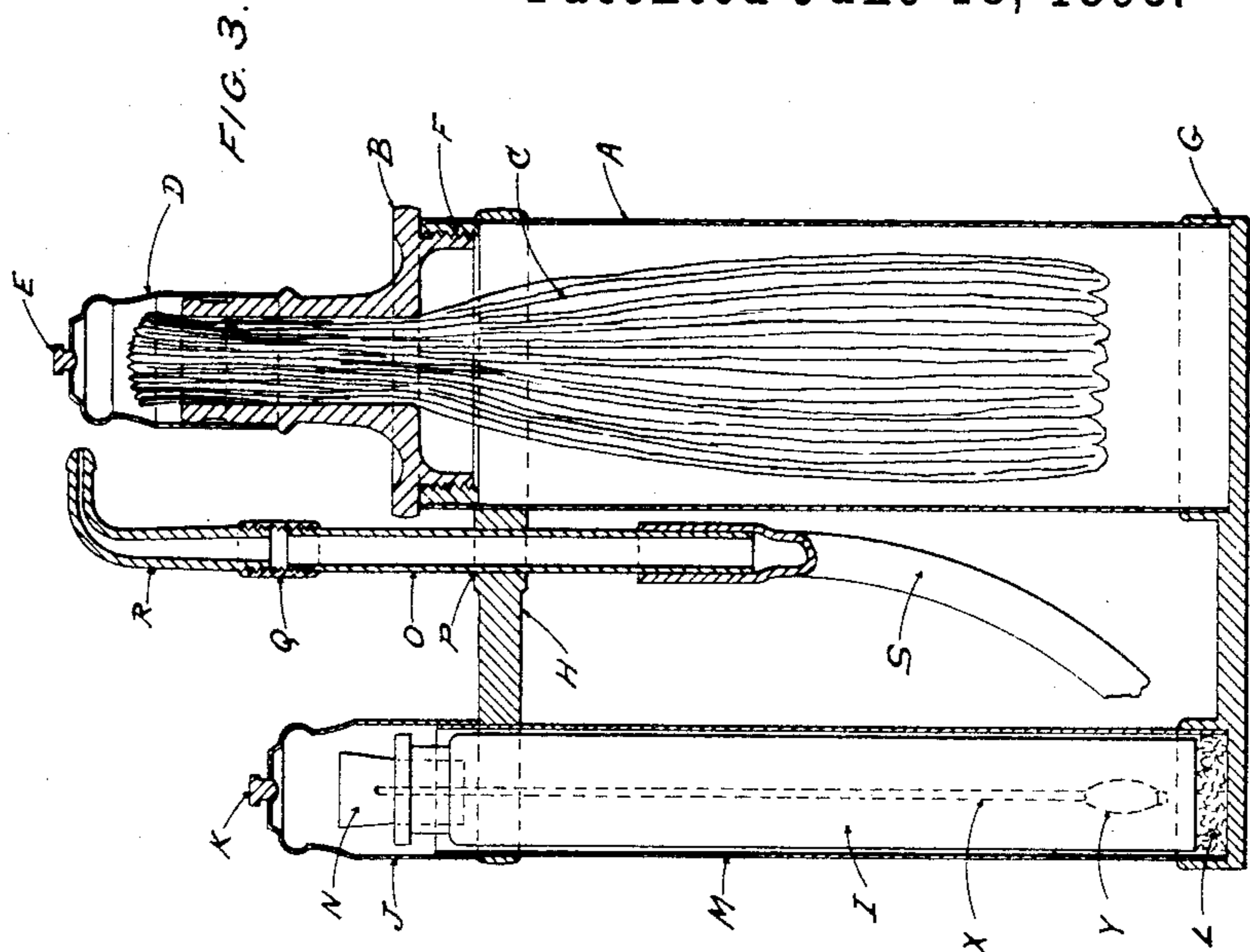
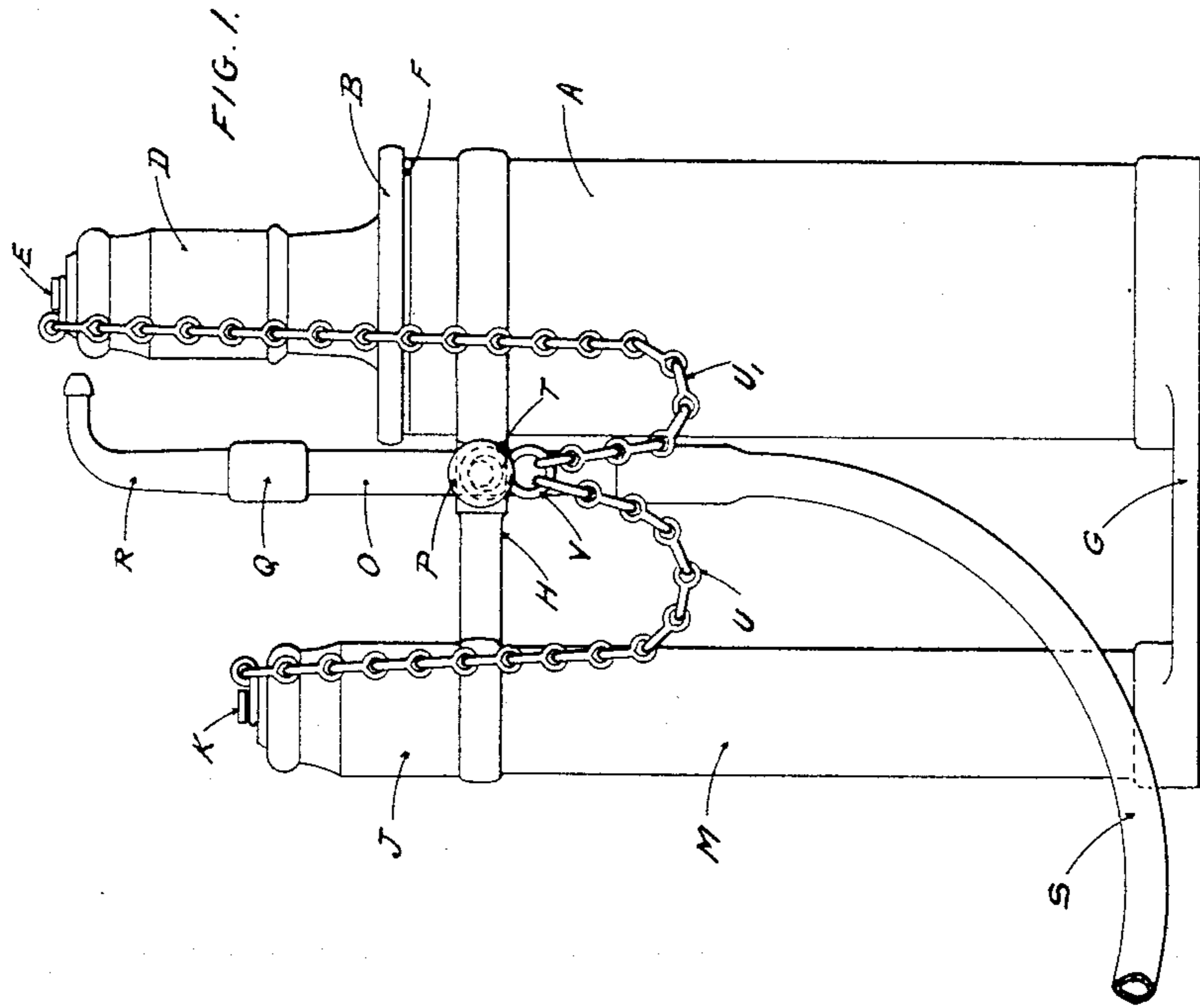
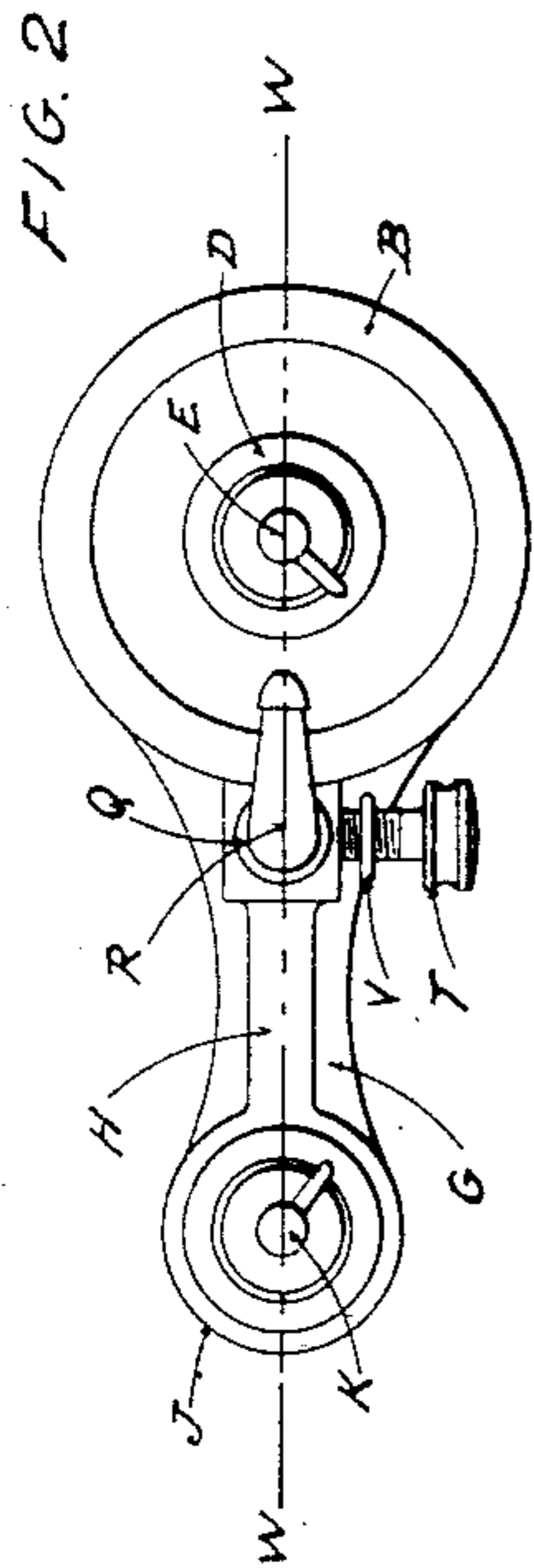


(No Model.)

R. A. WILLSON.
DEVICE FOR COMBINING SOLDERING TORCHES, ACID BOTTLES, AND
BLOWPIPES.

No. 541,408.

Patented June 18, 1895.



WITNESSES
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

RUSSELL A. WILLSON, OF MARQUETTE, MICHIGAN, ASSIGNOR OF ONE-
FOURTH TO FREDERICK O. CLARK, OF SAME PLACE.

DEVICE FOR COMBINING SOLDERING-TORCHES, ACID-BOTTLES, AND BLOWPIPES.

SPECIFICATION forming part of Letters Patent No. 541,408, dated June 18, 1895.

Application filed April 5, 1895. Serial No. 544,664. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL A. WILLSON, of Marquette, in the county of Marquette and State of Michigan, have invented a new and
5 Improved Device for Combining a Soldering-Torch, Acid-Bottle, and Blowpipe in a Very Convenient Form for Use, of which the following is a specification.

My invention has for its object, the produc-
10 tion of a mechanism which is a combination soldering torch, which is more convenient than any other device for soldering now in use, of which I have knowledge, in that it is light in weight; complete in its combination for con-
15 venient use, and can be carried in a pocket, or put in a tool bag without danger of breaking the acid bottle, or any other part, or causing the same to get out of order, thus avoiding the necessity of carrying a separate acid
20 bottle, liable to breakage.

My device is an improvement in soldering torches, in that it consists of a united mechanism, that may be constructed so as to be
25 not only convenient in use but also ornamental, on account of its new devices and combination.

My invention has for its object, the production of a suitable mechanism for the purposes above set forth. I accomplish these objects
30 by a combination of devices and appliances hereinafter described and claimed in the drawings and specification hereto attached.

Figure 1 is a side elevation of my invention. Fig. 2 is a top view of Fig. 1. Fig. 3 is a sectional view of my invention through line W
35 W of Fig. 2.

A is a cylindrical vessel, for the purpose of holding alcohol.

B is a top that fits into the vessel A as a
40 cover, and is provided with an opening for the wick C. D is a cap that covers same opening.

E is a knob on the cap D to which the chain U' is connected.

45 F is a ring fastened in the top of the vessel A and provided with a thread for the purpose of holding top B in position.

G is the foundation of the mechanism and consists of solid brass, so as to hold the mechanism together at the base.

H is a bracket holding together the vessel

A and handle M, and also serves as a support for the blow pipe O, by means of which it is held in position by set screw T.

I is a bottle for acid inside the handle M. 55

J is a cap that fits on the handle M and covers the bottle I.

K is a knob on cap J, to which the chain U is connected.

L is a mat, of cotton or some other soft substance, inside of the handle M, and placed on the foundation G, and upon which the acid bottle I rests, so as to prevent the bottle I from jarring and breaking when handled.

M is the handle of my device, and is hollow, so as to receive acid bottle I, as shown and described.

N is the stopper in the acid bottle I, to which is attached a small rod, X, in the center of N; which rod extends inside of and nearly to the
70 bottom of acid bottle I, and at the lower end of which is attached swab Y, consisting of wicking, or other soft substance that will absorb the acid fluid, for use when soldering.

O is a metal blow pipe, which fits into the
75 hole P in bracket H, and is adjustable by being raised and lowered and fastened by set screw T, as desired.

P is a hole in bracket H into which the blow pipe O fits. 80

Q is a pipe connection, for the purpose of uniting pipe O with the tip R.

R is the tip of the blow pipe.

S is a small rubber hose connected to the lower end of the blow pipe O, through which
85 the operator may blow when using the device for soldering.

T is a set screw that fits into bracket H and holds the blow pipe O in position.

U and U' are chains which connect respectively knob E on cap D, and knob K on cap J to ring V; which ring is attached to set screw T, as shown and described, so as to prevent the loss of cap D and cap J, when the device is in use. 95

By the means above described, a mechanism is constructed more convenient, time saving, simple and efficient than any other soldering torch within my knowledge, and can be constructed cheaper in its combined form
100 than any other device, or separate devices, for the same purpose, within my knowledge.

It safely secures the acid bottle from breaking. It also furnishes an adjustable blow pipe, adjusted in a very simple manner, as above described, which has not been accomplished before, within my knowledge.

By placing the acid bottle in the handle of the lamp, it does away with the necessity of carrying an extra bottle, to spill or break. When you have this torch you always have the acid bottle.

This device is made entirely of brass, or some other suitable metal, and highly polished, and is especially suitable for the use of electricians and wiremen, in making wire connections.

What I claim is—

1. In a soldering torch, the combination with cylindrical vessel A, which is provided with ring F, in connection with top B, screwed to said ring F; provided with wick C, covered by cap D, to which is secured chain U', which cap is provided with knob E; vessel A being provided with foundation G, bracket H and hole P, in connection with blow pipe O, provided with pipe connection Q; tip R and rubber

hose S; with set screw T and ring V; and hollow handle M, secured to the base G, and provided with cap J, to which is secured chain U; all substantially as shown and described.

2. In a soldering torch, the combination with cylindrical vessel A, which is provided with ring F, in connection with top B, screwed to said ring F, provided with wick C, covered by cap D, to which is secured chain U', which cap is provided with knob E; vessel A being provided with foundation G and bracket H, with hole P; in connection with blow pipe O, provided with pipe connection Q; tip R and rubber hose S; set screw T, and ring V; hollow handle M secured to the base G, and provided with cap J, to which is attached knob K; in connection with bottle I which rests on mat L, provided with stopper N; in connection with rod X and swab Y; all substantially as shown and described.

Dated March 28, 1895.

RUSSELL A. WILLSON.

In presence of—

MARY L. RAYMOND,
Mrs. F. O. CLARK.