

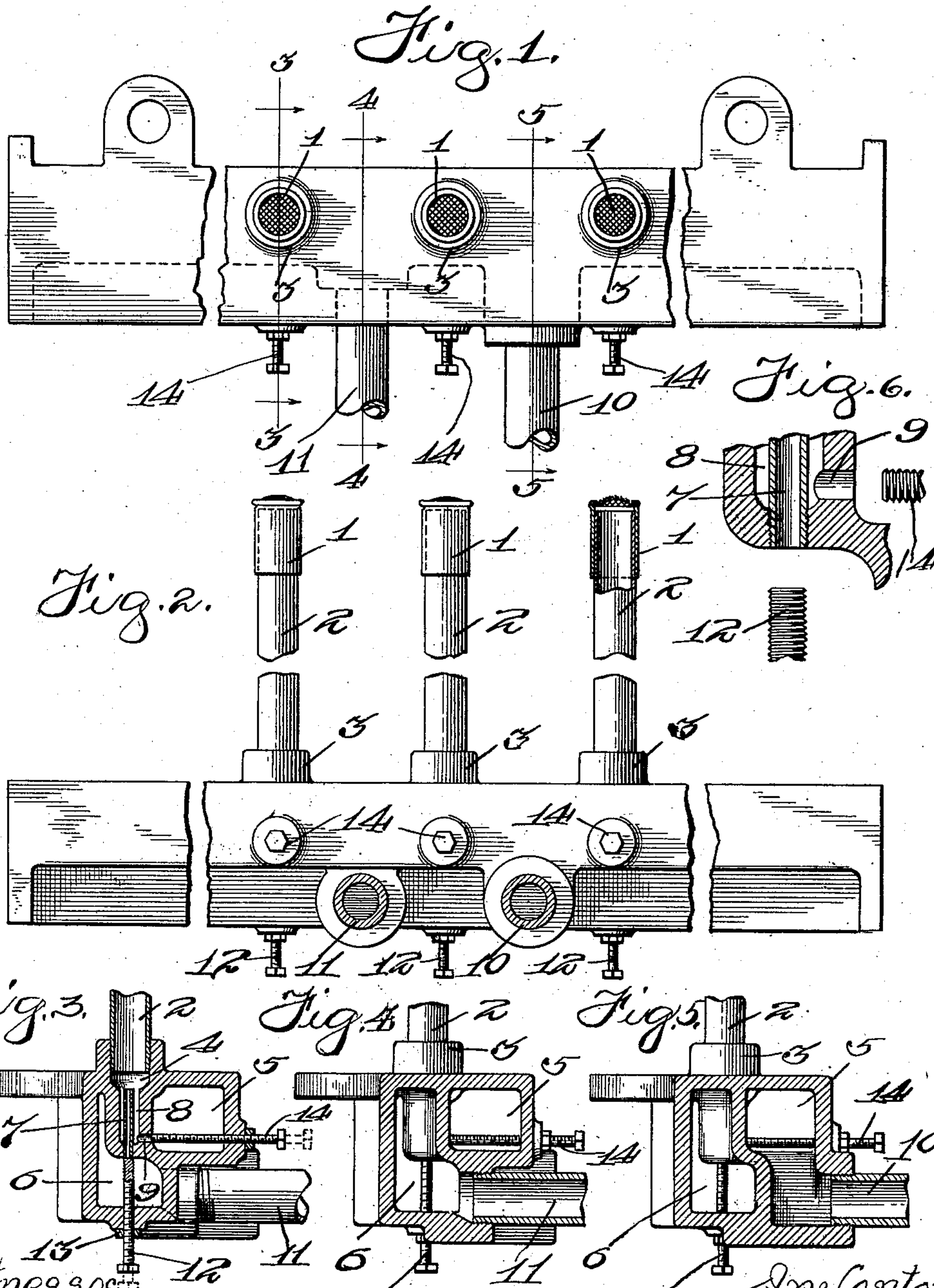
No. 860,164.

PATENTED JULY 16, 1907.

C. C. TRAVIS & S. C. HIGBY.

BUNSEN BURNER.

APPLICATION FILED JULY 15, 1905.



Witnesses:

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UNITED STATES PATENT OFFICE.

CLARENCE C. TRAVIS AND SIDNEY C. HIGBY, OF CHICAGO, ILLINOIS, ASSIGNORS, BY MESNE ASSIGNMENTS, TO SAID TRAVIS.

BUNSEN BURNER.

No. 860,164.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed July 15, 1905. Serial No. 269,774.

To all whom it may concern:

Be it known that we, CLARENCE C. TRAVIS and SIDNEY C. HIGBY, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Bunsen Burners, of which the following is a specification.

This invention relates to Bunsen burners especially designed for burning incandescent or gas mantles, and it has for its primary object to provide an improved, simple, and efficient form of Bunsen burner for this purpose in which a large number of the burners are grouped together in convenient form and supplied from a single source of fuel with capability of having the supply to the burners individually controlled.

With a view to the attainment of these ends, and the accomplishment of certain other objects which will hereinafter appear, the invention consists in the features of novelty in the construction, combination and arrangement of parts, which will now be described with reference to the accompanying drawing, and more particularly pointed out in the claims.

In the said drawing, Figure 1 is a plan view of our improved burner. Fig. 2 is a front elevation thereof. Fig. 3 is a cross-section on line 3—3, Fig. 1. Fig. 4 is a similar section on line 4, 4, Fig. 1. Fig. 5 is a similar section on line 5, 5, Fig. 1. And Fig. 6 is an enlarged detail section on the same line as Fig. 3.

In illustrating the invention we have shown but three of the burners 1, but it will nevertheless be understood that the number may be increased indefinitely according to our invention. These burners comprise the usual tubes 2, which are inserted in sockets 3, for holding the burner proper at the proper elevation to facilitate the insertion thereover of the mantle to be burned. All of the sockets 3 are formed on a single casting, and they communicate with a longitudinal chamber 4 therein extending from end to end thereof. This chamber is arranged coterminous with a passage 5, and below the chamber 4 is another passage 6, which is also coterminous with the chamber 4. Extending upwardly from the passage 6 into each of the chambers 4 is a gas jet or tube 7, and extending laterally from the passage 5 into an upright reduced annular space or passage 8 constituted around each of the tubes 7, is an air passage 9. Into the passage 5 leads a supply pipe 10 for compressed air, and into the passage 6 leads a supply pipe 11 for gas, whereby the jets 7 and the reduced annular spaces or passages 8 will be supplied with gas and air, respectively. The

amount of gas issuing through the jets 7 may be controlled by valves or screws 12 screw-threaded into the bottom of the passage 6, and having their upper ends terminating near the lower ends of the jets 7, jam-nuts 13 being provided for holding the screws 12 at the desired adjustment. The amount of air issuing through the passages 9 may be controlled by similar screws or valves 14 screw-threaded horizontally through the side wall of the passage 5 with their ends arranged contiguous to the passages 9, respectively. By this means it will be seen that, while all of the burners are grouped together in one casting or device, they may be individually regulated and the air and gas for each may be separately controlled.

Having thus described our invention, what we claim as new and useful and of our own invention, and desire to secure by Letters Patent, is:

1. In a Bunsen burner, the combination of a casing provided with a multiplicity of sockets for receiving the burner tubes, said casting being also provided with a chamber and a passage horizontally disposed and disconnected from each other, and extending past all of the sockets, said sockets having communication with the chamber, gas jets extending from said sockets into the passage, valves for controlling communication between said chamber and passage and said sockets, and means for supplying said passage and chamber with air and gas respectively.

2. In a Bunsen burner, the combination of a casting provided with a plurality of sockets for receiving the burner tubes, and having passages extending lengthwise thereof but disconnected from each other, means for supplying one of said passages with air and the other with gas, said air passage having communicating passages with said sockets respectively, gas-jets connecting said sockets, respectively, with said gas passage, set-screws screw-threaded in the walls of said air and gas passages, respectively, for controlling communication between the latter passages of such sockets, and jam-nuts on said set-screws for holding them to their adjustment.

3. In a Bunsen burner, the combination of a casting having a chamber therein, and provided with sockets communicating with the chamber, burner tubes adapted to be inserted in said sockets, said casting being also provided with an air and a gas passage each of which is provided with a source of supply, jets communicating with the gas passage and extending into and terminating within the chamber, means supported by the casting for controlling the inlet ends of the jets, said air passage being provided with a passage communicating with the chamber, and means also supported by the casting for controlling said passages.

4. In a Bunsen burner, the combination of a casting having a chamber therein provided with a reduced portion, and having sockets communicating with the chamber, burner tubes adapted to be inserted in said sockets, said casting being also provided with an air and a gas passage

5 each of said passages having a source of supply, jets located within the reduced portion of the chamber, terminating at the top of said portion and having communication with the gas passage, means supported by the casting and extending into the last said passage for controlling the inlet end of the jets, said air passage having passages communicating with the reduced portion of the chamber, and means also supported by the casting and extending into the air passage for controlling the last said passages.

In witness whereof, we have hereunto set our hands 10
this 26th day of June, 1905, in the presence of the subscribing witnesses.

CLARENCE C. TRAVIS.
SIDNEY C. HIGBY.

Witnesses:

FRANCIS A. HOPKINS,
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