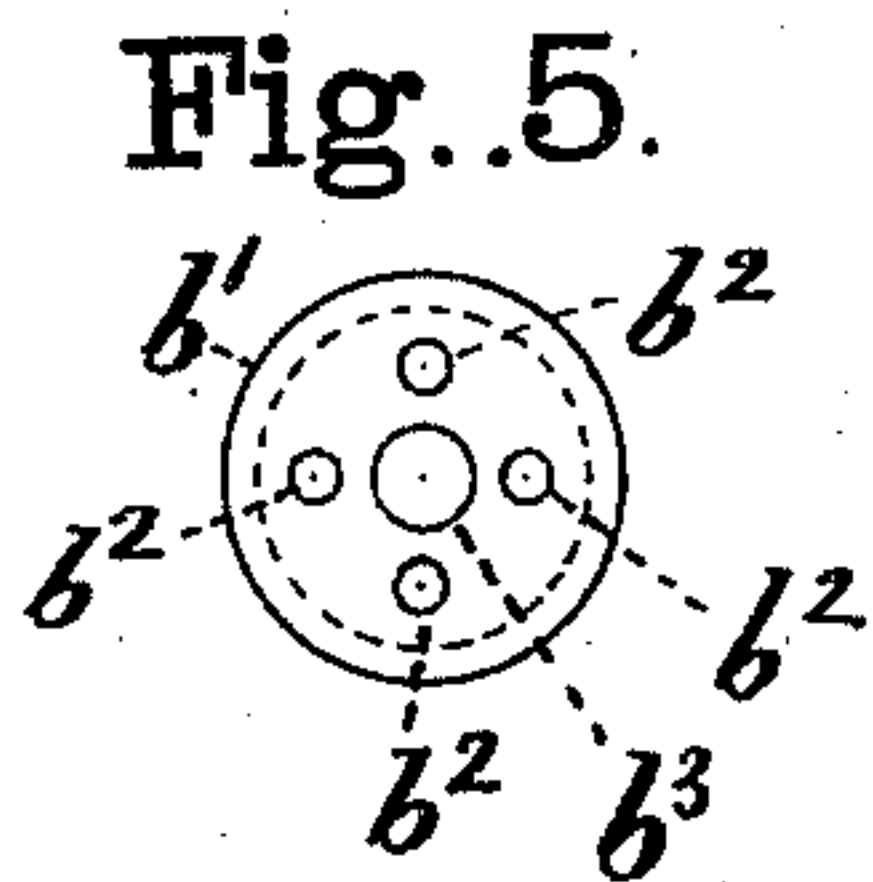
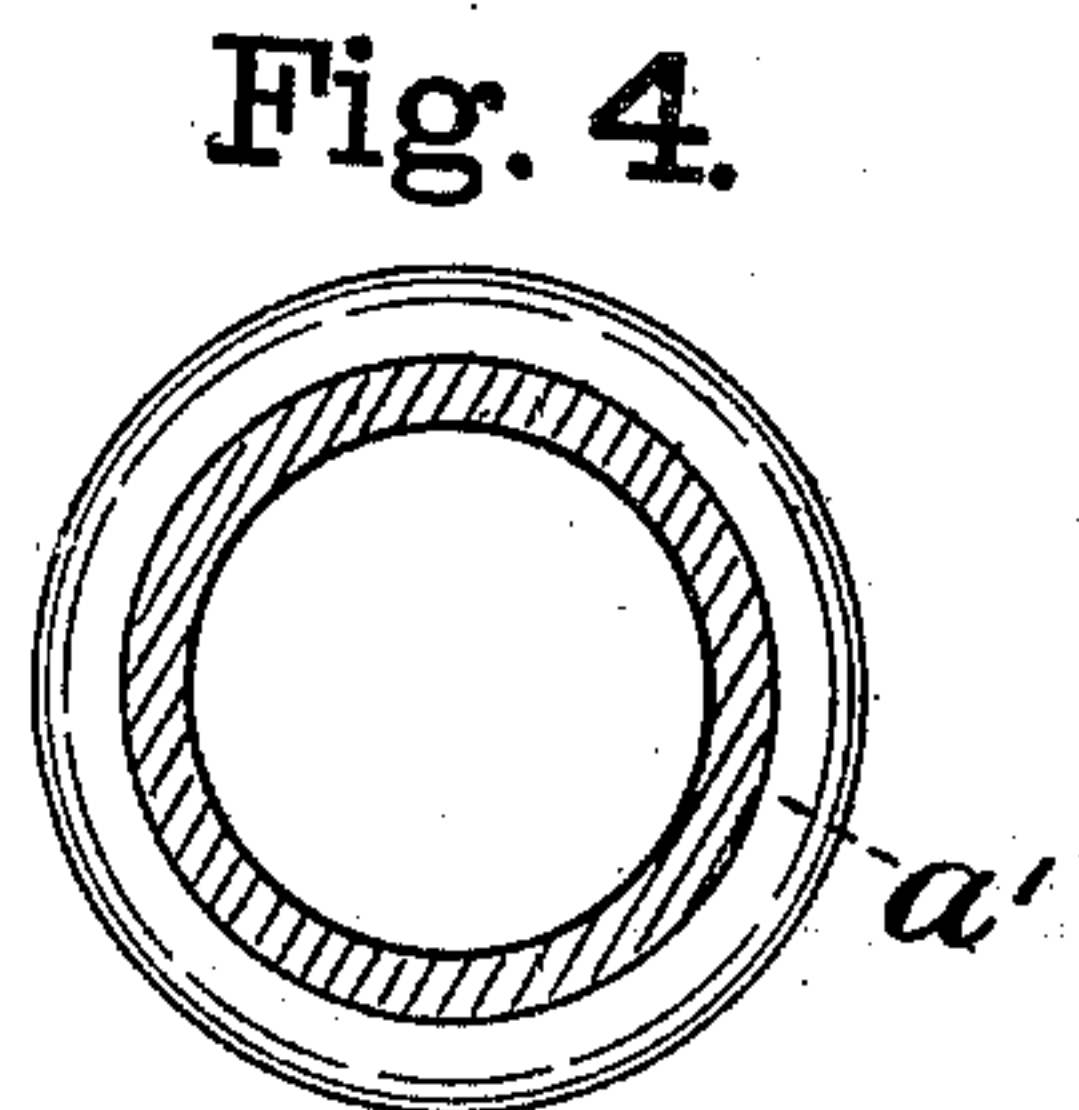
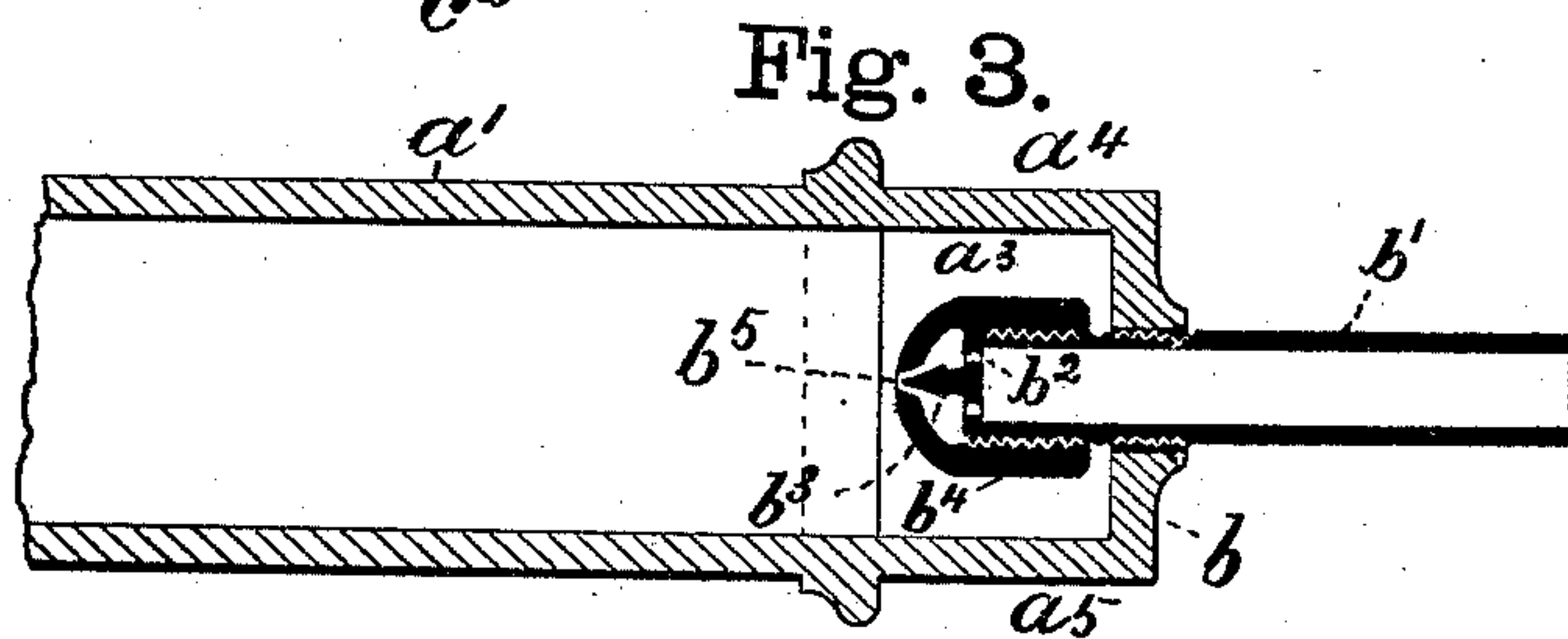
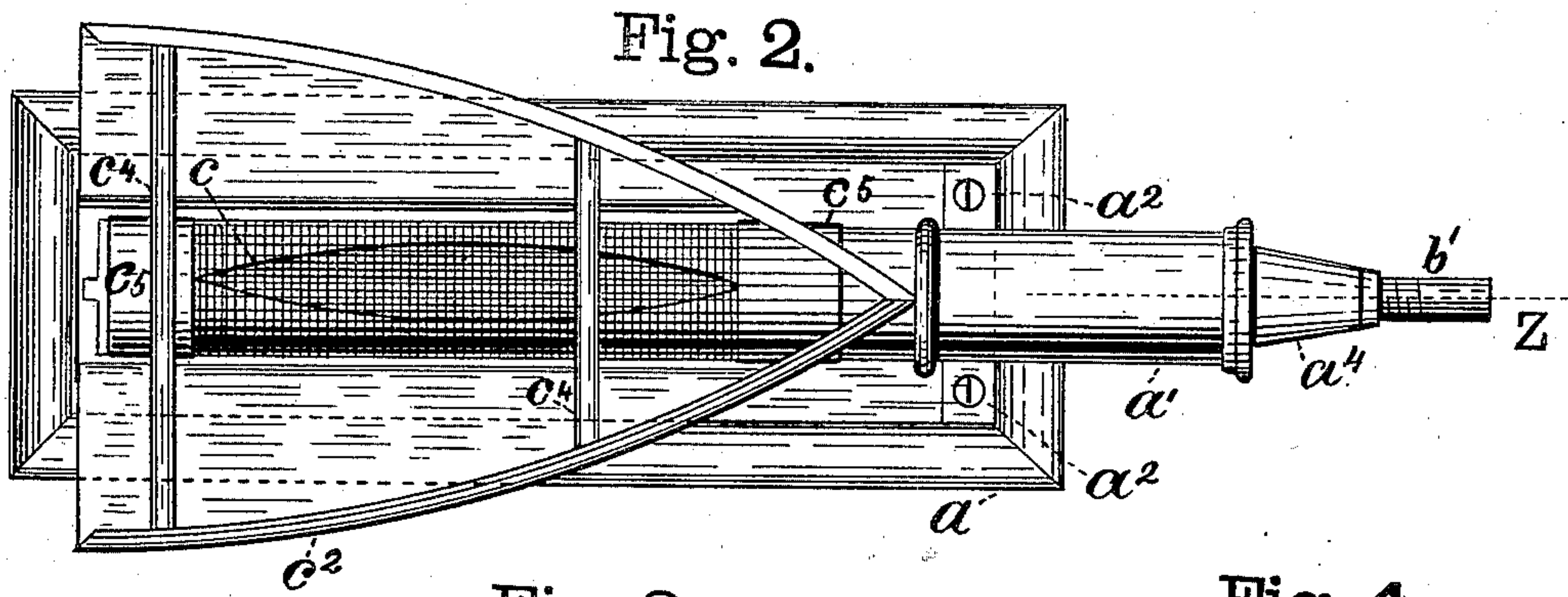
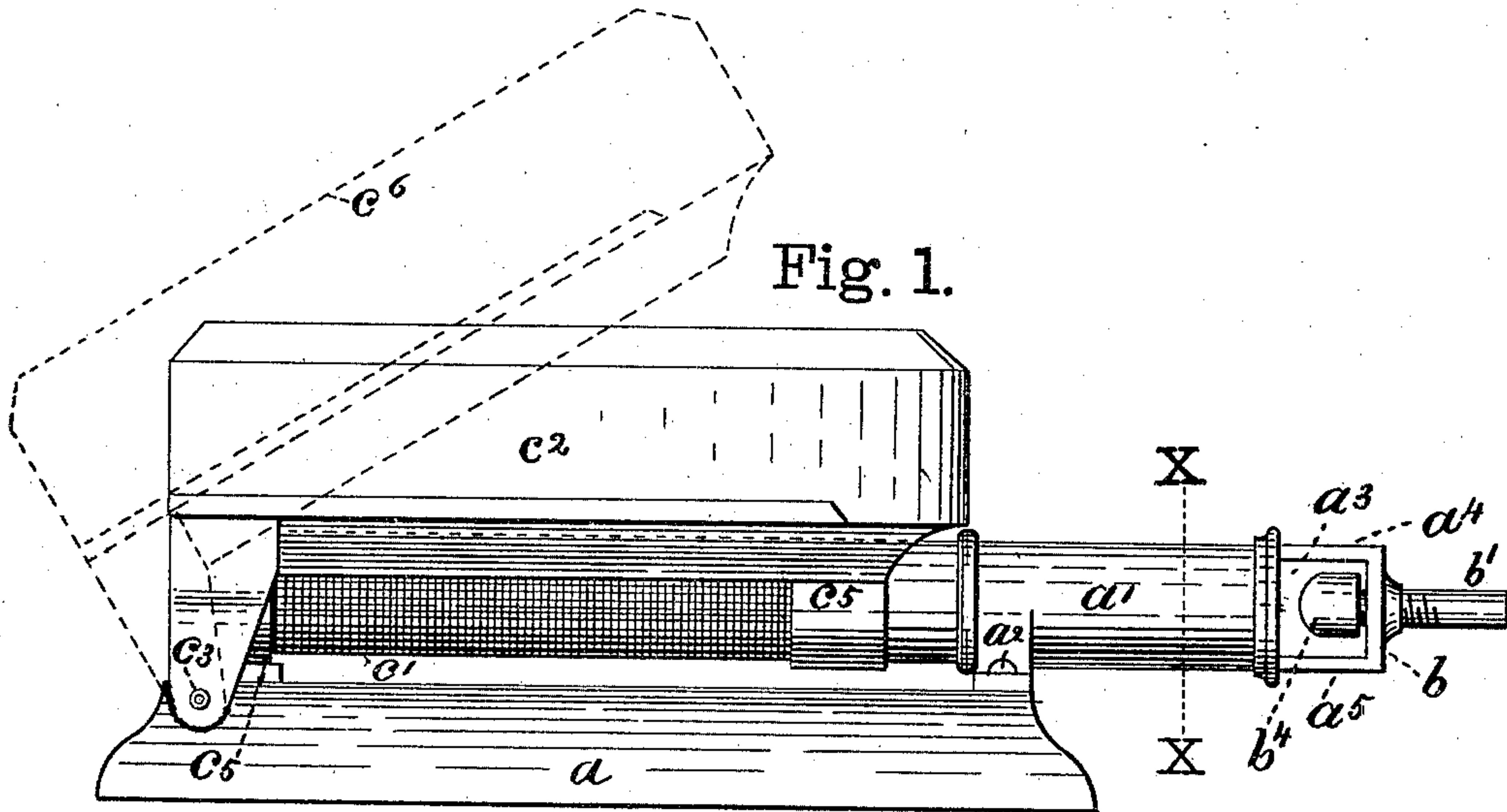


(No Model.)

I. M. SEAMANS.
GAS HEATER FOR SAD IRONS.

No. 286,155.

Patented Oct. 2, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

IRVING M. SEAMANS, OF BUFFALO, NEW YORK.

GAS-HEATER FOR SAD-IRONS.

SPECIFICATION forming part of Letters Patent No. 286,155, dated October 2, 1883.

Application filed May 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, IRVING M. SEAMANS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Gas-Heaters for Sad-Irons or other Articles, of which the following is a specification.

My invention relates to certain improvements in gas-burners for heating sad-irons, all of which will be fully and clearly hereinafter described, and shown by reference to the accompanying drawings, in which—

Figure 1 is a side elevation; Fig. 2, a plan or top view. Fig. 3 is an enlarged section through a portion of the gas-tube in line Z, Fig. 2. Fig. 4 represents an enlarged cross-section through line X X, Fig. 1; and Fig. 5 is an enlarged front end view of the gas-jet without the nozzle.

a represents a base or support, to which the mixing-tube *a'* is connected by screws *a''*. At the front end of the mixing-tube is a transverse opening, *a'''*, composed of the parts *a''* *a'''*. The gas-tube *b'* is screwed into the part *b*. It is a hollow tube, having the front end closed, with the exception of a series of small holes, *b''*, (see Figs. 3 and 5,) and is provided with a conical point, *b'''*. A nozzle, *b''''*, is screwed onto the gas-tube *b*. (See Figs. 1 and 3.) This nozzle is provided with a small flaring perforation, *b'''''*, into which the point *b'''* is adapted to fit, so that said opening may be closed or opened at pleasure. The arrangement is such that, although the size of the opening *b'''''* may be adjusted so as to permit the flow of more or less gas, it can also be adjusted so that the issue-opening will be at the same point, or at the same distance from the part *b*, as will be readily seen—that is, if the nozzle is screwed forward away from the part *b*, so as to enlarge the opening and let out more gas, the gas-tube *b'* may be screwed back the other way far enough to bring the nozzle to the right point, thereby providing the means whereby the operator can regulate the amount of air mixed with the gas. The mixing-tube *a'* is provided with a long narrow opening, *c*, and that portion of the tube is covered with fine wire-gauze *c'*. The sad-iron holder *c''* is made of sheet-iron or other equivalent material, and of the proper form to receive and

hold a sad-iron. It is hinged to the main frame by hinges *c''*, and is provided with two or more cross-bars, *c'''*, to set the sad-iron upon and protect the wire-gauze below it. It is obvious that by substituting a suitable frame any other article may be heated—as, for instance, tinners' soldering-irons. The wire-gauze is secured to the mixing-tube *a'*, in the usual way, by means of two thimbles or short tubes, *c''''*, (see Figs. 1 and 2,) which fit over the wire-gauze and over said tube.

The operation of the invention will be readily understood from the foregoing description and accompanying drawings. The object in hinging the sad-iron holder to the base or support is to provide the means for easily reaching the wire-gauze portion to clean it or repair it when required. A further advantage from this construction of burner is that the flow of gas being controlled directly at the point of issue—namely, at *b'''''*—its current has all the velocity due to the pressure, whether its flow be greater or less, the passage being entirely free from the main to the opening *b'''''*. The current of gas is thus enabled, whether its flow be more or less, to carry with it enough of air to produce perfect combustion, so that the bottom of the sad-irons will not be soiled by smoke. If the flow of gas is checked at a point between the main and its point of issue, the velocity of the current when so reduced will be so slow that an insufficient quantity of air will be mixed with it, and, although the burner may give a smokeless flame when used at its full capacity, it will, when partially checked, be found to smoke to a greater or less extent.

I claim as my invention—

1. A sad-iron gas-heater consisting of a suitable base or support, *a*, a mixing-tube provided with a gas-opening, *c*, and wire-gauze *c'*, in combination with a gas-nozzle and a hinged sad-iron holder, as and for the purposes set forth.

2. The gas-tube *b'*, having gas-openings *b''* and the stationary point *b'''*, in combination with the adjustable cap or nozzle *b''''*, for the purposes described.

IRVING M. SEAMANS.

Witnesses:

J. M. CALDWELL,
JAMES SANGSTER.