

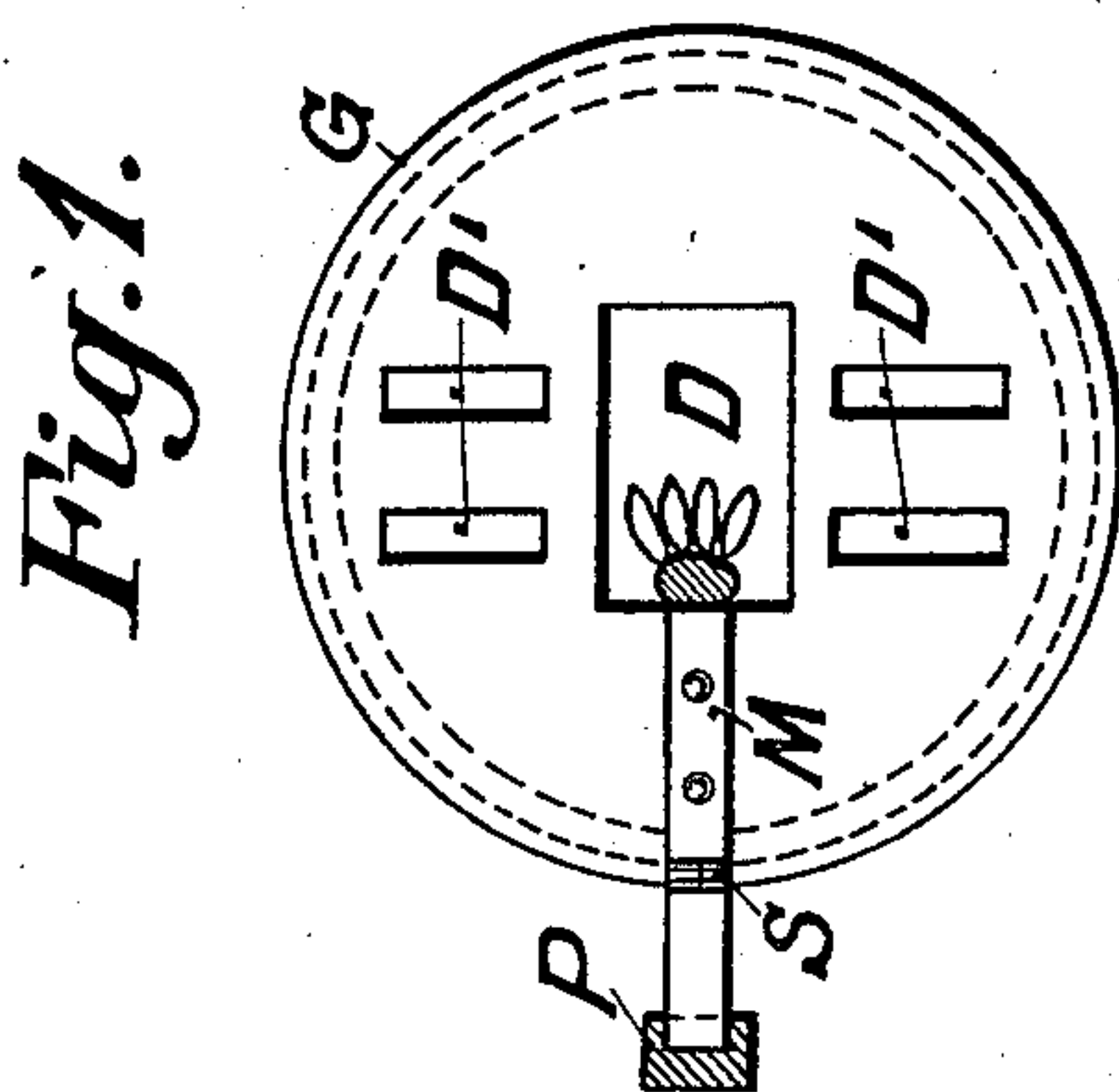
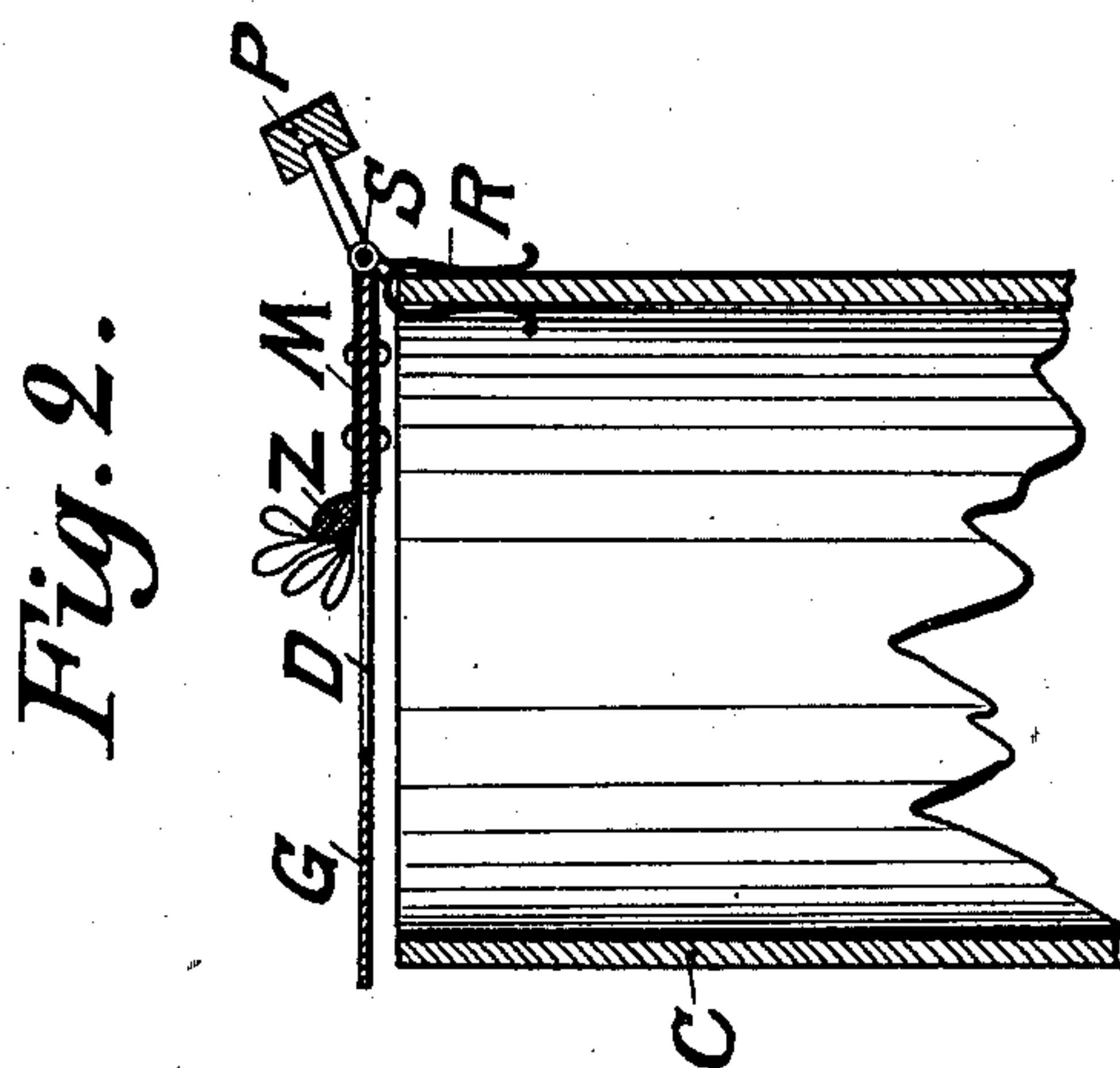
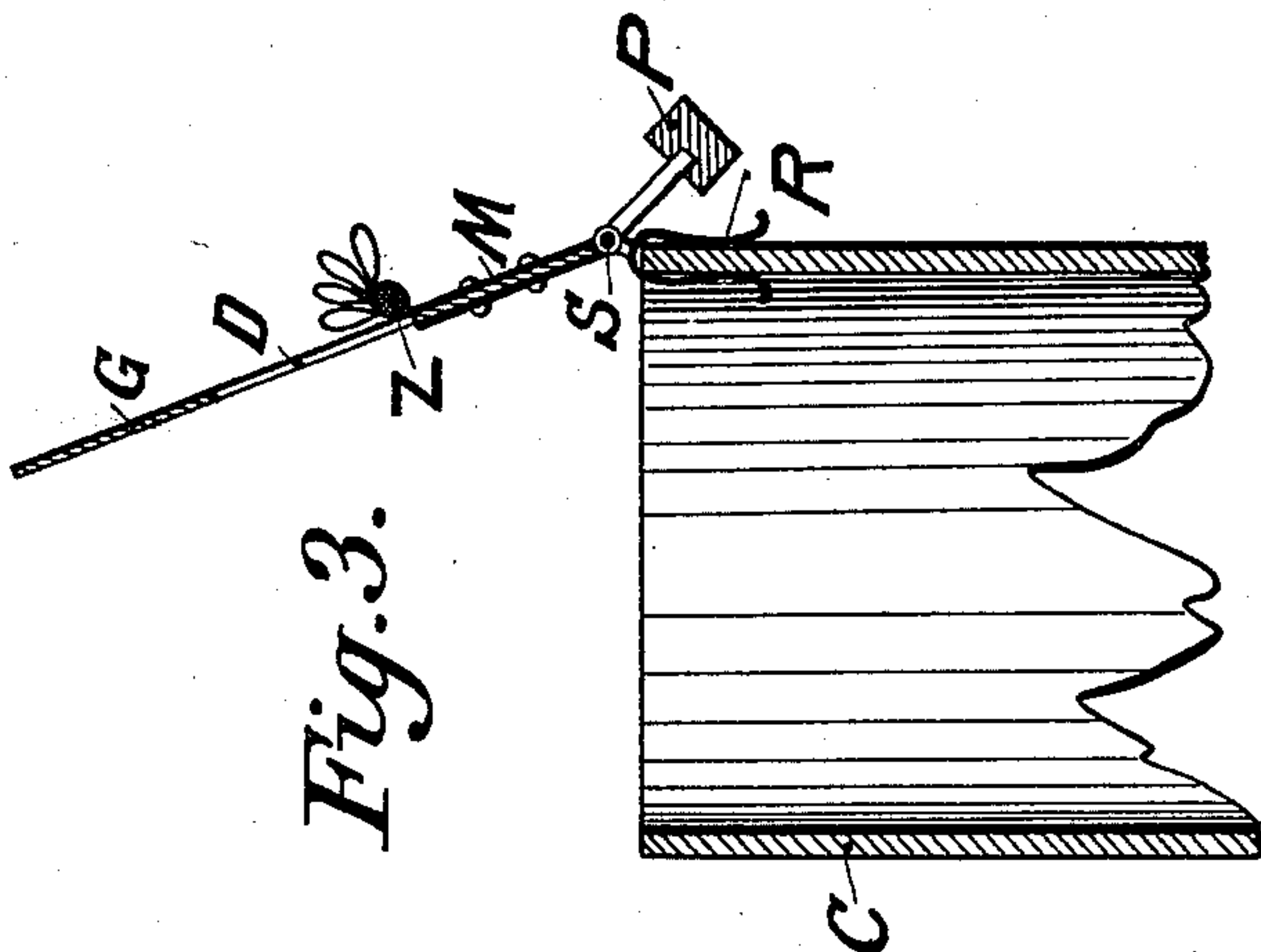
No. 657,994.

Patented Sept. 18, 1900.

K. VON VICTINGHOFF-SCHEEL.
AUTOMATIC GAS LIGHTER.

(Application filed Nov. 4, 1898.)

(No Model.)



WITNESSES:

C. Holloway
W. C. Pinckney

INVENTOR:

Karl von Victinghoff-Scheel.
By J. E. McDowell
Attorney

UNITED STATES PATENT OFFICE.

KARL VON VICTINGHOFF-SCHEEL, OF BERLIN, GERMANY.

AUTOMATIC GAS-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 657,994, dated September 18, 1900.

Application filed November 4, 1898. Serial No. 695,455. (No model.)

To all whom it may concern:

Be it known that I, KARL VON VICTINGHOFF-SCHEEL, a subject of the German Emperor, residing at Berlin, in the German Empire, have invented certain new and useful Improvements in Automatic Gas-Lighters, of which the following is a specification.

Heretofore in automatic gas-lighters which are arranged at the top of the chimney of a Bunsen burner or the like the ignition is frequently slow and uncertain when the gas-pressure is weak, because an insufficient quantity of gas reaches the lighting device, (primer and igniting-wire.)

The object of the present invention consists in compelling the ascending gas to brush against the primer, and this is accomplished by covering the mouth of the chimney with a cover which is provided with an opening in which the primer is arranged. The ascending volume of gas is therefore compelled to escape through the opening in the cover and in this way must naturally brush closely against the primer, so that the lighting surely follows. At the same time, moreover, the opening furnishes a way of escape to the explosion at lighting.

Automatic gas-lighters have heretofore been devised in which the lighting device is arranged above the chimney underneath a plate or cap covering the chimney, as shown, for example, in English Patents No. 29,076 of 1896 and No. 28,709 of 1897. Since in these arrangements the plate or cap is entirely closed, the lighting device is in a stationary gas mass and the lighting does not therefore follow with certainty, because for this purpose a current of gas brushing the primer is most advantageous. Furthermore, the closed plate or cap when lighting really occurs offers considerable resistance to the gas, so that a quite violent explosion is produced, and, as a rule, a flashing back of the flame takes place before the movably-arranged plate or cap is removed from the sphere of the hot current of air. By the present invention these defects in automatic gas-lighters, with a plate or cap covering the chimney, are overcome by the fact that the primer is ar-

ranged in an opening of the plate or cap covering the chimney. This opening compels the gas-current to brush the primer directly, and it also lessens the resistance of the plate on the lighting, in that it permits the passage of the lighted gas, which therefore removes the plate out of the sphere of the flame.

The accompanying drawings show means for carrying out the invention.

Figure 1 is a plan view of a gas-lighter embodying my invention. Fig. 2 is a vertical section of the same, showing the plate lowered. Fig. 3 is a similar view showing the plate raised.

On the upper part of the chimney C is a thin mica plate G, which has an opening D. The plate G is connected with hinge S by a riveted metal strip M and is nearly counterbalanced by a counterweight P. The whole arrangement is mounted by a rider R, and the hinge is so arranged that the plate G remains separated all around about two millimeters from the edge of the chimney. The lighting device Z is so fastened to strip M that it is situated in the opening D.

The mode of operation is as follows: If the gas-cock is turned on, the gas in an almost concentrated current streams through the opening D against the lighting device and is ignited by the device in a short time. Through the pressure suddenly arising in the cylinder the mica plate is thrown back on its hinge and maintains during the burning, in consequence of the upward pressure of the hot gases, an almost vertical position, Fig. 2. By the small separation of the mica plate from the chimney the explosion occurring on lighting is much lessened. After turning off the gas-cock the mica plate remains a few seconds in its vertical position and then sinks gradually to its seat, so that the apparatus is again ready for use.

Having thus described my invention, what I claim is—

1. In an automatic gas-lighter, the combination with the chimney of a gas-burner, of a thin plate arranged on and covering the top of the chimney and provided with an aperture, and a primer or lighting device ar-

ranged in said aperture, whereby the escaping gas is caused to brush in a concentrated stream against the primer, as set forth.

5 2. In an automatic gas-lighter, the combination with a chimney of a gas-burner, of a thin plate movably hinged on and covering the top of the chimney and provided with an aperture, and a primer or lighting device ar-

ranged in said aperture, substantially as set forth.

Signed at Berlin, Germany, this 22d day of October, 1898. 10

KARL VON VICTINGHOFF-SCHEEL.

Witnesses:

W. HAUPT,

HENRY HASPER.