

P. T. BURTIS.

Condensers for the Manufacture of Illuminating Gas.

No. 141,543.

Patented August 5, 1873.

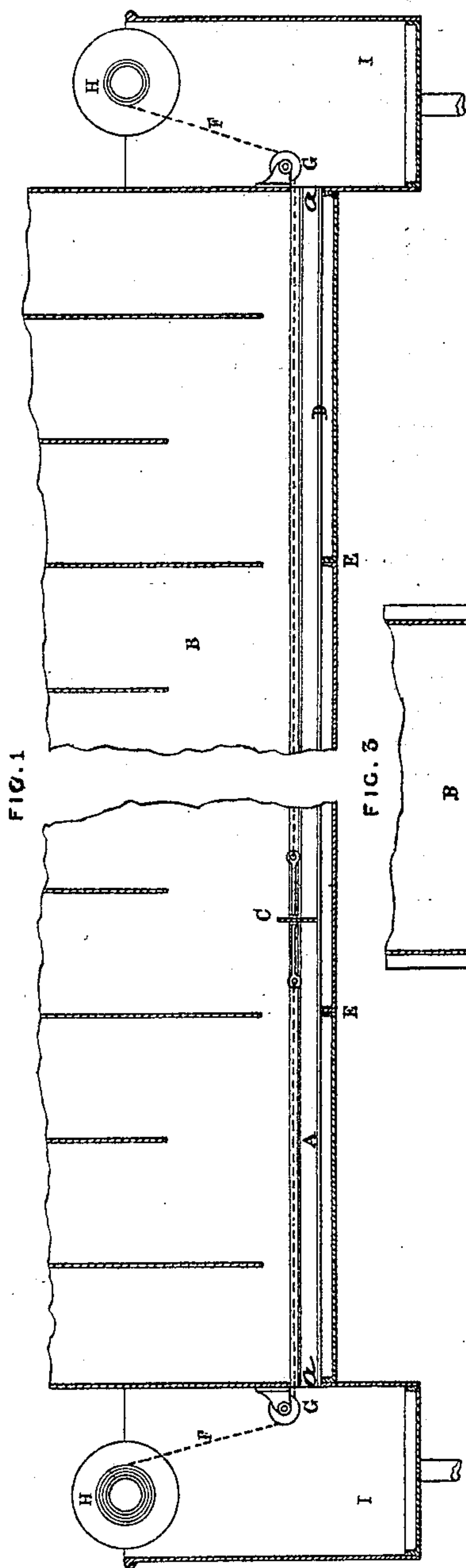


FIG. 1

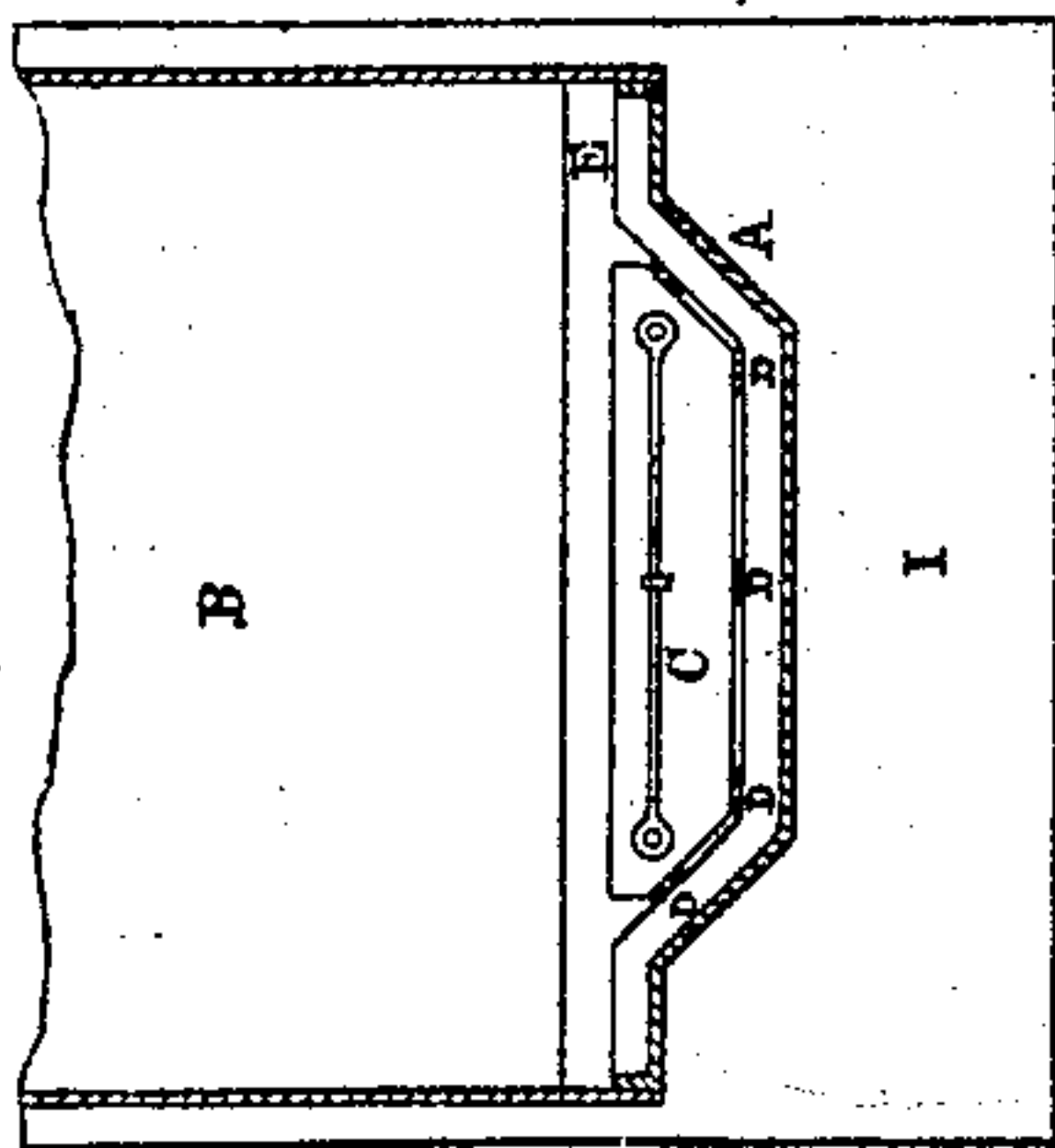


FIG. 3

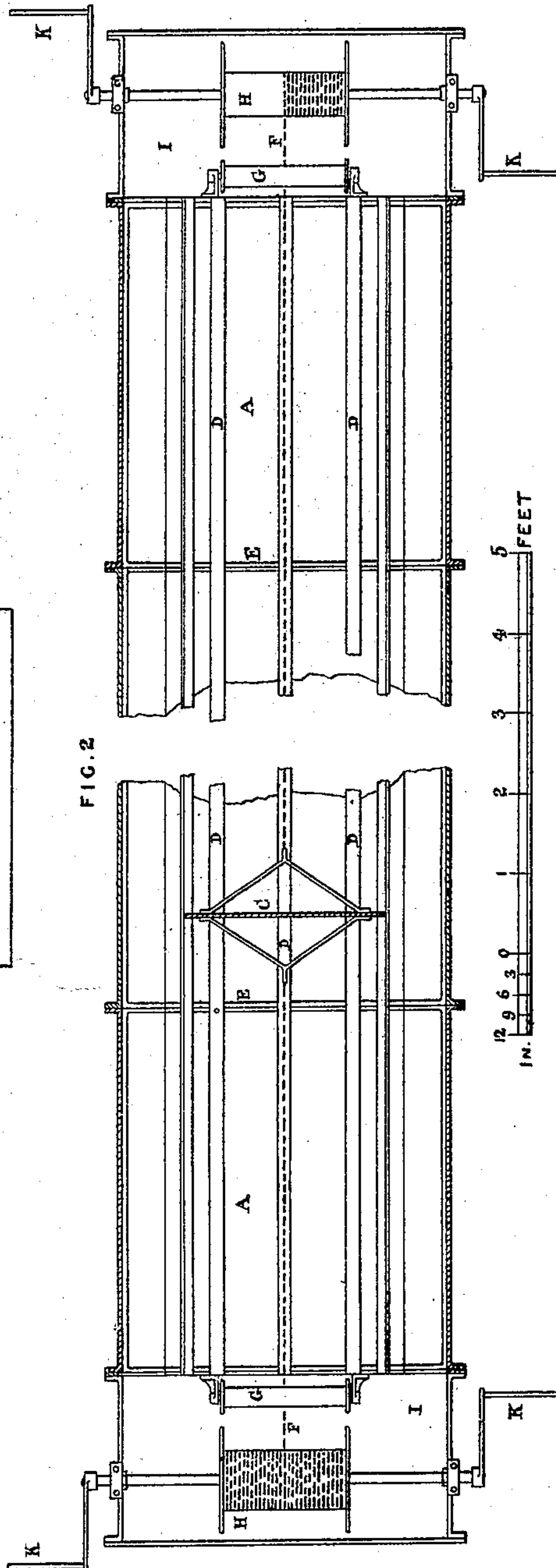


FIG. 2

WITNESSES:

E. A. West
Thomas Wilson

INVENTOR:

Peter T. Burtis

UNITED STATES PATENT OFFICE.

PETER T. BURTIS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO ELIAS T. WATKINS, OF SAME PLACE.

IMPROVEMENT IN CONDENSERS FOR THE MANUFACTURE OF ILLUMINATING-GAS.

Specification forming part of Letters Patent No. 141,542, dated August 5, 1873; application filed
July 3, 1873.

To all whom it may concern:

Be it known that I, PETER T. BURTIS, of the city of Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Apparatus for Manufacturing Illuminating-Gas, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of the lower portion of a washer, showing my invention applied thereto. Fig. 2 represents a plan view of the interior of one of the lower chambers of a washer with my invention applied; and Fig. 3, a transverse section of the same.

In the manufacture of gas there will be deposits of tar and other matter in the lower chambers of the washers or condensers, which must be occasionally removed therefrom. Heretofore this could not be done while the washer or condenser was in use, and the removal of such deposits is attended with considerable loss of time and difficulty.

The object of my invention is to so construct washers and condensers that the deposits which accumulate therein can be readily removed therefrom without interfering with their use; and this I accomplish by forming a trough in the bottom of the washer or condenser, communicating, by an opening at the ends, with a well or receptacle for the deposits; and by the use of a scraper to remove the deposits.

In the drawings, A represents a trough formed in the bottom of the washer B, and extending the full length thereof. C is a scraper, placed crosswise, and resting upon bearing-bars D, which are laid on the transverse flanges of the trough A. The scraper is provided with suitable rods to act as braces; and to it, or to the braces, two ropes or chains, F F, are attached, one upon each side, and extending through the washer, as represented. G are guide-rollers, under one of which each chain or rope passes, the rollers being fast-

ened to the end plates of the washer. H H are drums or rollers, over which the chains pass. The axles of the rollers run in journals upon the sides of the wells. I I are wells, one placed at each end of the chamber, and extending below the bottom of the trough A. The drums H are provided with suitable cranks K. In each end of the chamber of the washer, just below or nearly on a line with the rollers G, is an opening, a, communicating with the well, through which the deposits are removed.

I keep water in the wells and trough A, on a level with a line a little above the upper line of the openings a, for the purpose of preventing the escape of the gas through these openings.

When it becomes necessary to remove the tar or other deposits it can easily be done by turning one of the drums H, which will draw the scraper through the chamber, carrying with it a portion of the deposits, which will be forced out into one of the wells I. Then, by operating the drum at the other end of the chamber, the scraper will again be drawn through, carrying the deposits, as before. This can be repeated as often as necessary, though two passages of the scraper will generally be sufficient.

The deposits can be removed from the well I by drawing the same out through an opening in the bottom, or by removing them from the top.

If the flanges E should be placed on the outside of the chamber, the scraper might be provided with rollers resting upon the bottom of the trough A.

My invention is adapted to be used with washers, condensers, or other similar apparatus; and by its use the deposits can be removed at any time without interfering at all with the flow of the gas through the apparatus, and hence without any loss of time.

The scraper can be operated in various ways. That shown and described is simple and convenient.

What I claim as new is as follows:

1. The washer B or condenser having the trough A, substantially as and for the purpose specified.

2. The well I, in combination with the washer B or condenser, and communicating directly therewith by means of the opening a, substantially as and for the purpose specified.

3. The combination of the washer B or condenser, the well I, and scraper C, all constructed and operating substantially as and for the purposes specified.

PETER T. BURTIS.

Witnesses:

E. A. WEST,
O. W. BOND.