

A. COZE.
GAS RETORT CHARGER.

No. 473,143.

Patented Apr. 19, 1892.

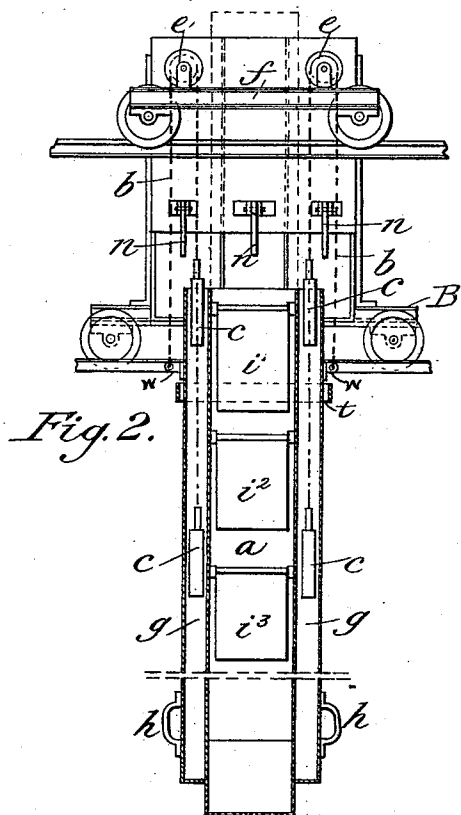


Fig. 4.

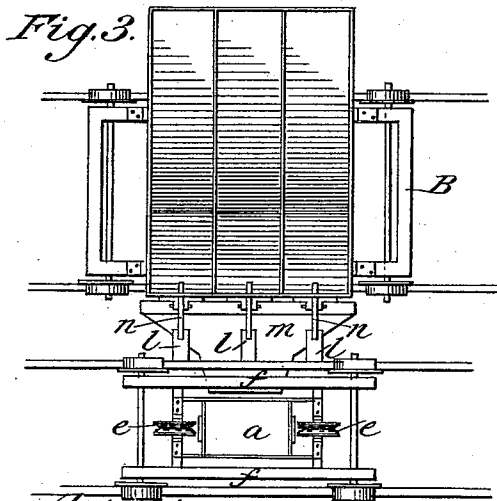
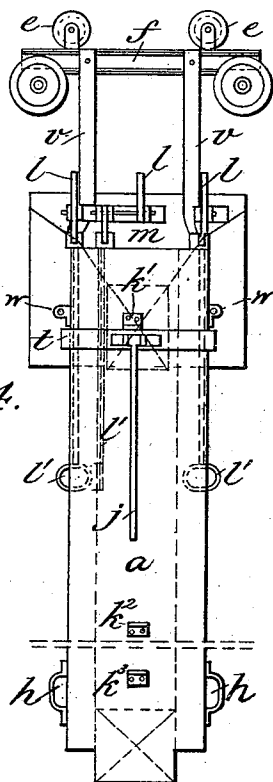


Fig. 5.

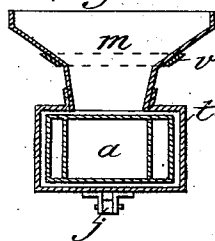
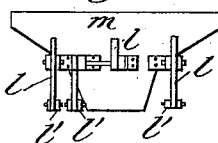


Fig. 6.



Attest:

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UNITED STATES PATENT OFFICE.

ANDRÉ COZE, OF RHEIMS, FRANCE, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO SOCRATES NEWMAN AND JAMES GREEN, OF ST. LOUIS, MISSOURI.

GAS-RETORT CHARGER.

SPECIFICATION forming part of Letters Patent No. 473,143, dated April 19, 1892.

Application filed September 6, 1890. Serial No. 364,212. (No model.)

To all whom it may concern:

Be it known that I, ANDRÉ COZE, of the city of Rheims, France, have invented Improvements in Apparatus for Charging Inclined Gas-Retorts, of which the following is a full, clear, and exact description.

My invention relates to improvements in apparatus for charging inclined gas-retorts forming the subject of a former patent, dated September 4, 1888, No. 388,953, in which each retort is provided with a separate chute.

The object of the present invention is to render a single shoot capable of serving the whole of the retorts of a bench in which the retorts are on different levels. For this purpose I employ a shoot the lower end of which may be brought to correspond to the mouth of each retort to be charged, while at the same time the several openings with which the shoot is provided correspond with the feed-hopper outlet. The improved charging arrangement comprises, first, an adjustable shoot; second, a fixed or movable charging-mouth, and, third, a hopper-truck.

Reference is to be had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a cross-sectional elevation of the inclined retorts with the improved charging apparatus applied. Fig. 2 is a partial section and partial elevation of the entire charging apparatus. Fig. 3 is a top plan view thereof. Fig. 4 is a side elevation of the apparatus with the charging-truck removed. Fig. 5 is a section on the line 5 5 of Fig. 1, and Fig. 6 is a top plan view of the feed-hopper and its appurtenances.

My improved apparatus comprises a shoot *a*, of rectangular or other section, which is suspended vertically by chains being connected to the shoot by means of lugs *w w* and *b*, and counterbalanced by weights *c*, the chains passing round guide-rollers *e*, mounted upon a truck *f*, traveling on rails above the retort. The shoot *a* being balanced by the weights *c*, which slide up and down in guide-ways *g*, can be raised and lowered by means of the handles *h* with facility. The shoot is provided on the side next the retort with flap-

valves *i' i² i³*, and it terminates at bottom in a bend adapted to correspond with the mouth of each retort. The shoot is supplied from hopper-trucks, as *B*, running on rails laid along the top of the bench of retorts, which trucks may be brought opposite the inclined charging-mouth *m*, fixed in the present example to the truck *f*, from which the shoot is suspended, to enable each of the compartments of the hopper-truck *B* to be put in communication with the shoot *a*.

The trucks may be divided into three compartments, each of sufficient capacity to contain a charge for one retort, said compartments being each provided with a drop-bottom hinged at *s*, and which is held closed by a latch *n*, capable of being readily released by a lever *l* to discharge the contents of the compartment into the shoot. The levers *l* are adapted to be operated by means of actuating-rods *l'*, and the drop-bottoms may be raised and restored to the latched position by means of handles, as *x*, Fig. 1.

In Fig. 1 the apparatus is shown as applied for charging the lowermost retorts *n'* of the bench, the shoot *a* being here supported in position by a stop *k'*, which is fixed upon the shoot and rests on a strap *t*, encircling the shoot *a* and attached to the charging-mouth *m*, said charging-mouth being suspended from the truck *f* by means of the supports *v*. The shoot is locked in its other positions—*t¹* to say, for charging the retorts *n² n³* by stops *k² k³* on the shoot engaging with a notch *o* of a lever *j*, hinged to the strap above mentioned. The shoot *a* has as many openings *i' i² i³* as there are tiers of retorts. These openings are placed at the same distance apart as that which separates the tiers of retorts, so that communication between the hopper-truck may be established with either tier of retorts.

I claim—

1. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distances of the retort-

mouths from each other, substantially as described.

2. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distance of the retort-mouths from each other, said inlet-openings being provided with flap-doors, substantially as described.

3. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distance of the retort-mouths from each other, and a feed-hopper adapted to register with the inlet-openings, substantially as described.

4. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distance of the retort-mouths from each other, and means for moving said shoot laterally, substantially as described.

5. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distance of the retort-mouths from each other, and counterbalance-weights to facilitate the manipulation of the shoot, substantially as described.

6. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a

number of inlet-openings spaced at distances apart equal to the distance of the retort-mouths from each other, and counterbalance-weights to facilitate the manipulation of the shoot, and guards extending along the sides of the shoot for the reception of the counter-weights, substantially as described.

7. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distances of the retort-mouths from each other, and stops for maintaining the shoot in its different adjustments, substantially as described.

8. An apparatus for charging retorts placed at different heights, comprising a longitudinally-movable shoot having an exit-opening adapted to register with the retorts and a number of inlet-openings spaced at distances apart equal to the distances of the retort-mouths from each other, a feed-hopper adapted to register with the inlet-openings, and a truck having a series of separate compartments discharging into said hopper, substantially as described.

9. An apparatus for charging retorts placed at different levels, comprising a truck, a movable shoot mounted upon the truck and having a discharge-opening adapted to register with the retort-mouths, and a second truck carrying a feed-hopper co-operating with the shoot, substantially as described.

The foregoing specification of my improvements in apparatus for charging inclined retorts signed by me this 14th day of August, 1890.

ANDRÉ COZE.

Witnesses:

R. J. PRESTON,
ALBERT MOREAU.