

No. 682,793.

Patented Sept. 17, 1901.

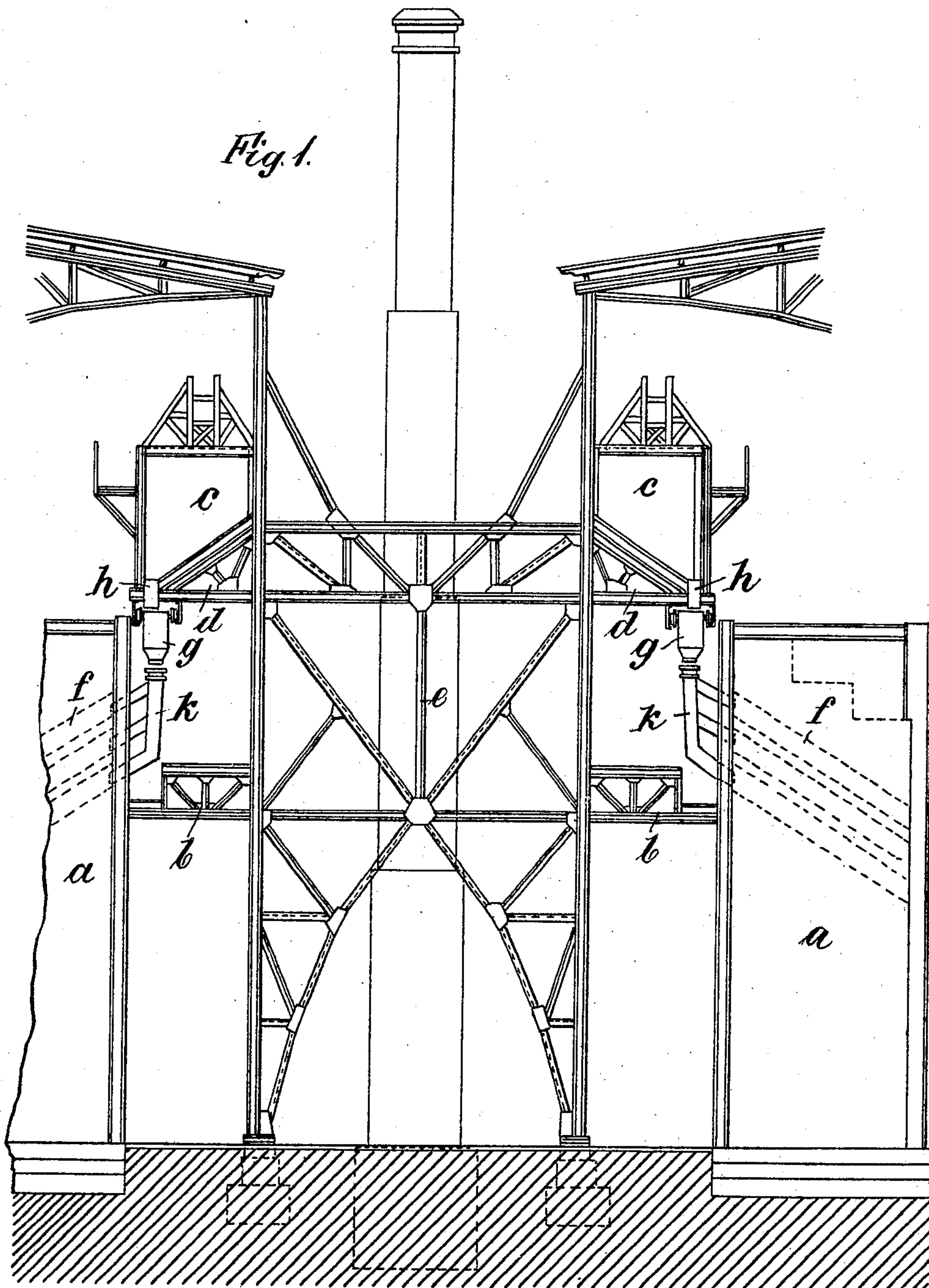
E. DRORY.

MEANS FOR CHARGING GAS RETORTS.

(Application filed Mar. 15, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

Attest

C. H. Sommers

Inventor:
Edward Drory.

by *Henry J. [Signature]*

Atty

No. 682,793.

Patented Sept. 17, 1901.

E. DRORY.

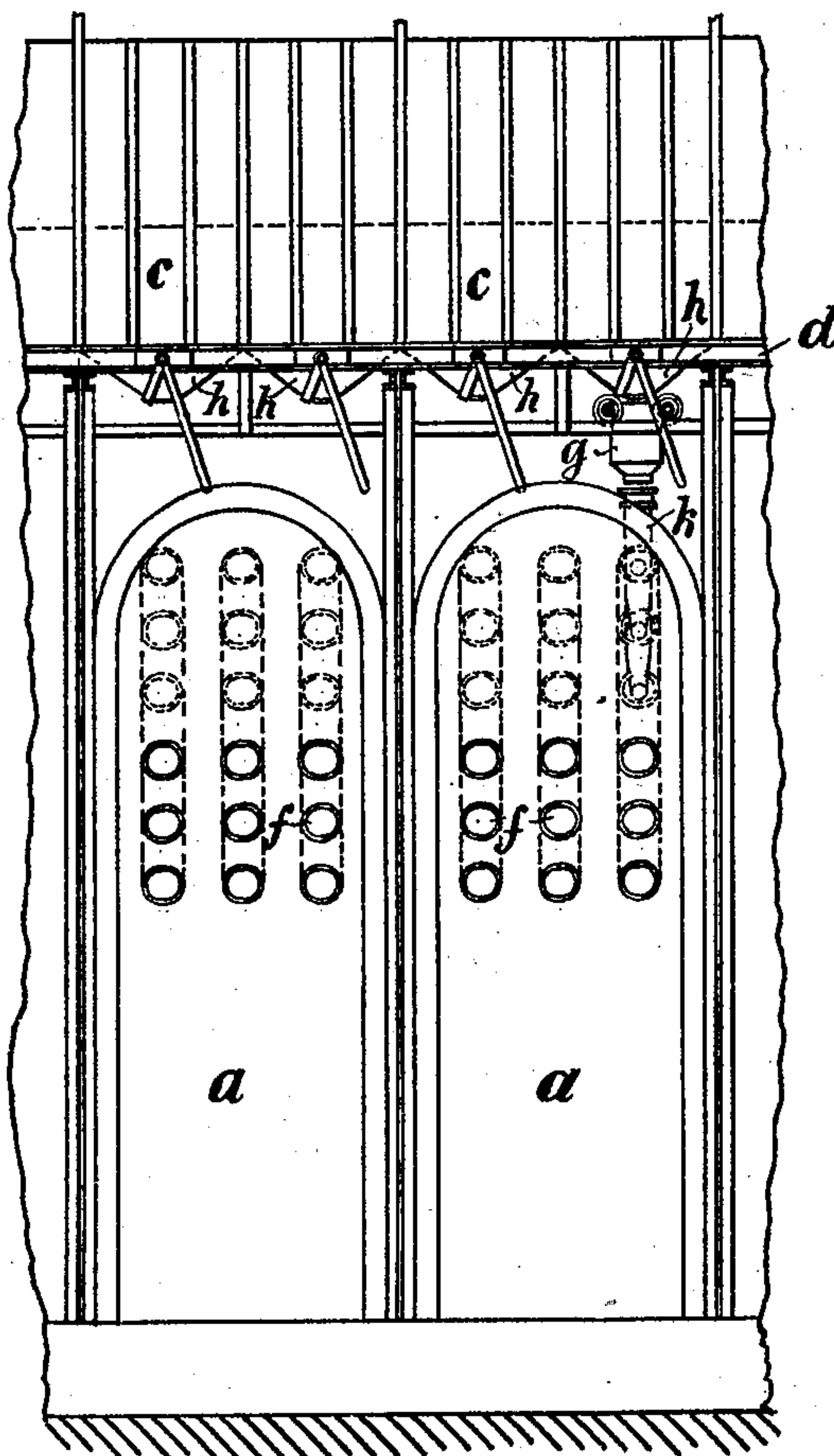
MEANS FOR CHARGING GAS RETORTS.

(Application filed Mar. 15, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 2.



Witnesses:
Attest
C. H. Summers

Inventor,
Edward Drory.
by *Wm. J. M. M.* Atty

UNITED STATES PATENT OFFICE.

EDWARD DRORY, OF BERLIN, GERMANY.

MEANS FOR CHARGING GAS-RETORTS.

SPECIFICATION forming part of Letters Patent No. 682,793, dated September 17, 1901.

Application filed March 15, 1901. Serial No. 51,351. (No model.)

To all whom it may concern:

Be it known that I, EDWARD DRORY, director, a subject of the King of Great Britain and Ireland and Emperor of India, residing at Gitschinerstrasse 19, Berlin, Germany, have invented certain new and useful Improvements in the Arrangement of the Coal-Storage Receptacles for Inclined Gas-Retorts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to a new arrangement of the coal-storage receptacles which serve for filling inclined gas-retorts with coal. This coal is allowed to enter charging vessels from the receptacles. These charging vessels are moved over the mouthpieces of the retorts and have sliding doors or valves which can be opened in order to allow the coal to fall into the retorts. The construction of such coal-receptacles on the furnace walls or masonry, or even on girders which are supported on the furnace-walls and in simple pillars, has many disadvantages. Thus the frequently very irregular expansion of the walls of the furnace in which the retorts are mounted during the strong heating is transferred to the coal-receptacles and exerts a detrimental influence on the cohesion of the parts of which they are constructed, this result being accentuated in large plants, where the coal-receptacles are frequently about thirty meters long.

The construction forming the object of this invention is more especially designed for large plants which are provided with retort-houses the roof principals of which leave open an unroofed space in the middle of the house or shed for the escape of the steam which is formed on quenching the glowing coke withdrawn from the inclined retorts after the gas has been removed from the coal. The improved construction is characterized by a bearer-frame, built-up structure, or gantry which has brackets or cantalivers on both sides at the top, the coal-receptacles being

arranged on these brackets, which are independent of the furnace-walls. The said frame is, moreover, so arranged as to leave free passage-ways or spaces for the workman in the middle and close in front of the retorts and at the same times serves as supports for the roof principals of the halves or sections of the retort-house.

Figure 1 shows the bearer-frame or built-up structure with the brackets or cantalivers and parts used in the construction of the retort-house in end elevation and the two coal-receptacles in transverse section, which are designed for two oppositely-arranged furnaces. Fig. 2 is a front elevation.

a a are the furnaces, which are arranged opposite to each other in the retort-house and are provided with inclined retorts *f*. The said retorts are each charged from a platform *b* by means of charging vessels *g*, movable on rails, which vessels receive their charges from the coal-storage receptacles *c*. The said receptacles are provided in a known manner with inclined bottoms and filling-hoppers *h*, connected thereto. The filling-hoppers and the charging vessels are each provided at the bottom in a known manner with a sliding door or valve. The introduction of the coal into the retorts *f* takes place in a known manner through feed-pipes *k*, placed suitably under the charging vessels. The coal-receptacles *c* are mounted quite independently of the retort-furnaces *a*. The said receptacles are supported in free bearer-brackets or cantalivers *d* on a frame *e*, constructed specially for that purpose and with which the brackets form a united whole. In this arrangement the injurious motion which results from the irregular expansion of the retort-furnaces cannot be transmitted to the coal-receptacles *c*, extending over the whole length of the said furnaces. These coal-receptacles are protected from distortion and cracking and do not give rise to costly repairs and interruptions of work, as is the case with coal-receptacles having the method of support heretofore generally employed. The framing for the reception of the coal-receptacles preferably serves at the same time as a support for the half-roof principals, which are quite separate from each other and

leave an unroofed space in the middle of the retort-house for the purpose of permitting ventilation and the escape of the steam during the quenching of the coke. This framing, which leaves free passage-ways or spaces in the middle and close in front of the retort-furnaces, can also take the wind-pressure acting on the two halves of the roof much more safely than the simple pillars which were heretofore provided for that purpose.

Having now particularly described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with furnaces arranged to have a clear space between them, independent roof structures supported on built-up iron-work between the furnaces, coal-receptacles supported on cantalivers above and proximate the furnace-fronts, a track hung from beneath the cantalivers, a charging-receptacle running thereon, a stoker's bridge supported on separate cantalivers below the coal-receptacles, all of said cantalivers supported by the built-up iron-work and inde-

pendent of the furnaces, substantially as described. 25

2. The combination with sets of furnaces arranged to have a clear space between, separate roofs for each set of furnaces, structural iron-work supporting the ends of the roofs and connected above the ground to leave a free passage between the buildings, two sets of cantalivers projecting into each building, coal-receptacles above and proximate the furnace-fronts supported on the upper sets of cantalivers, discharging-hoppers on said receptacles, a track supported by the upper set of cantalivers, a charging vessel arranged to move on said track and a platform beneath the coal-receptacles supported by the lower sets of cantalivers, substantially as described. 30 35 40

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

EDWARD DRORY.

Witnesses:

JOHANNES HEIN,
HENRY HASPER.