

(No Model.)

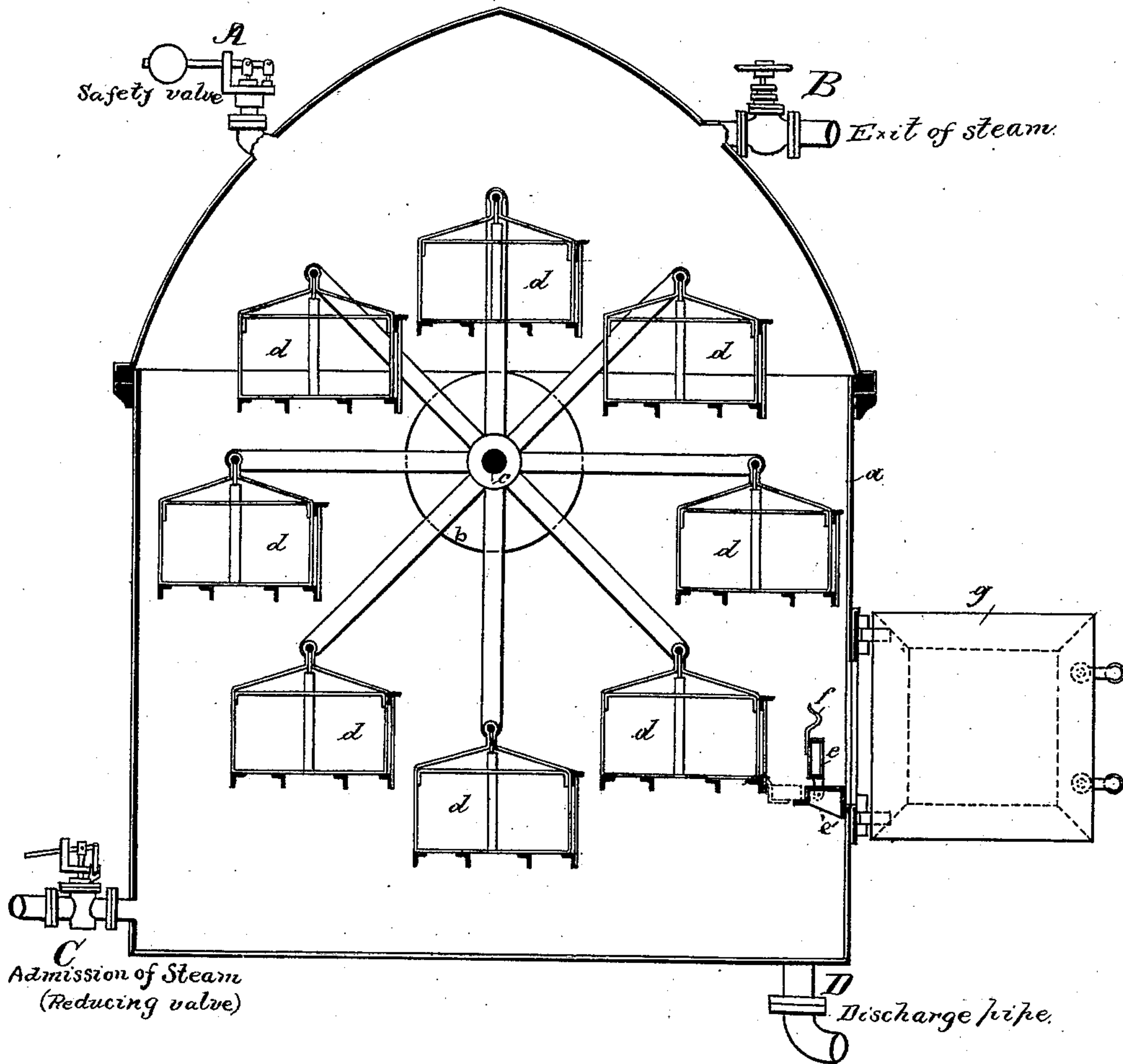
3 Sheets—Sheet 1.

C. A. G. SCHMIDT.  
APPARATUS FOR STEAMING FABRICS.

No. 422,321.

Patented Feb. 25, 1890.

*Fig. 1.*



Witnesses:

G. L. Blanchard.  
Wallace Williams.

Carl August Gottlieb Schmidt  
Inventor  
by W. P. Peble Jr.  
his attorney

(No Model.)

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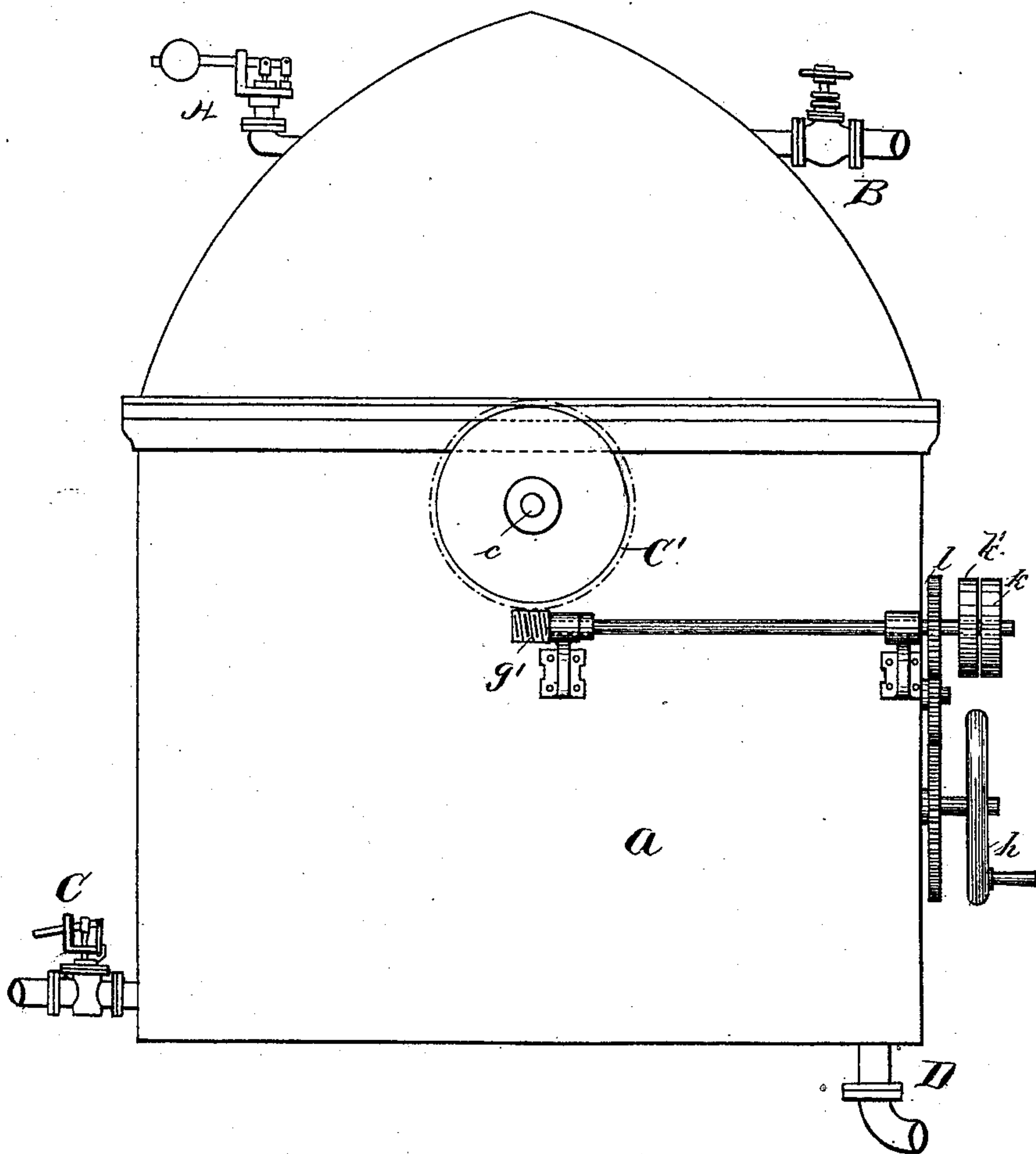
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*Fig. 2.*



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(No Model.)

3 Sheets—Sheet 3.

C. A. G. SCHMIDT.  
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Fig. 4.

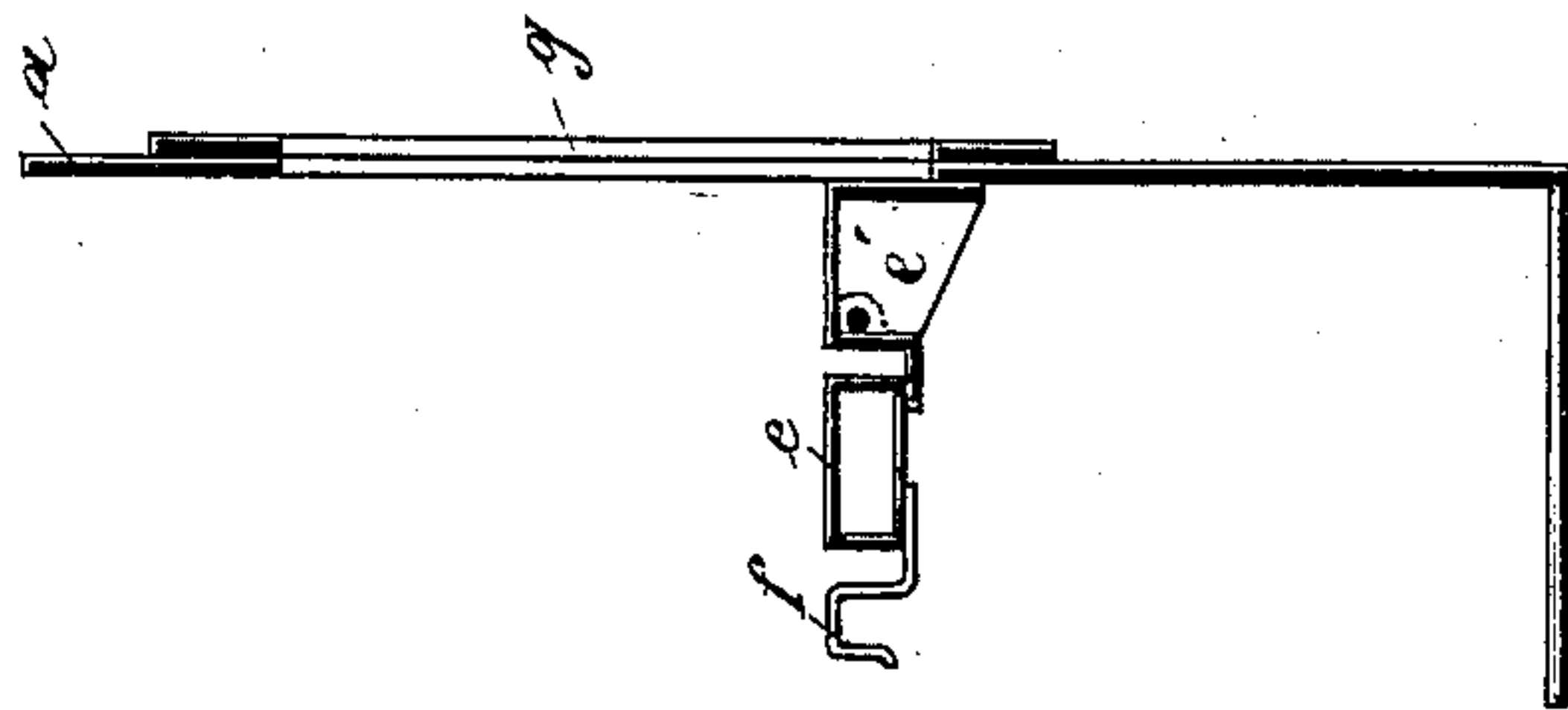
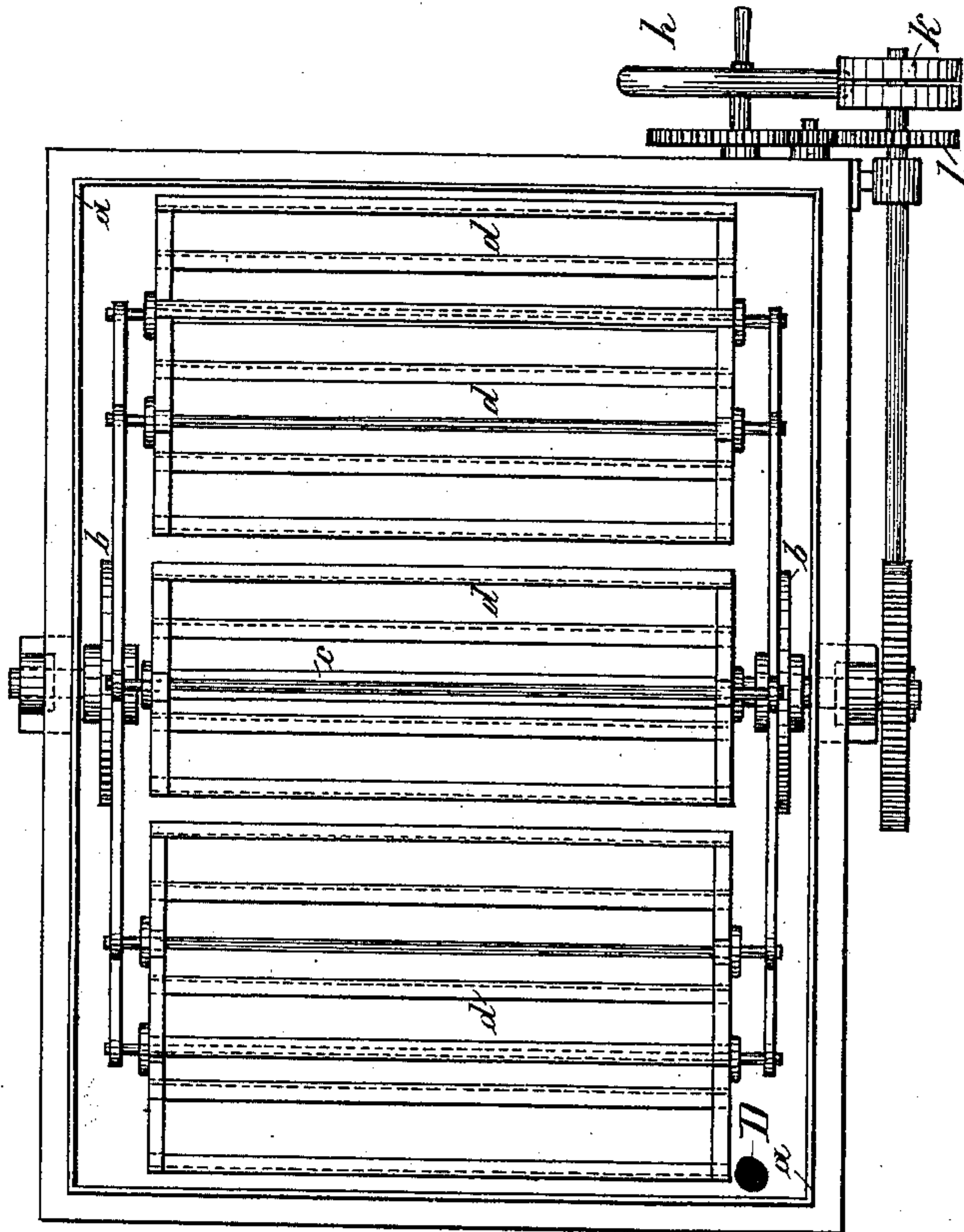


Fig. 3.



Witnesses:

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his attorney



# UNITED STATES PATENT OFFICE.

CARL AUGUST GOTTLIEB SCHMIDT, OF LANGENSALZA, PRUSSIA, GERMANY.

## APPARATUS FOR STEAMING FABRICS.

SPECIFICATION forming part of Letters Patent No. 422,321, dated February 25, 1890.

Application filed June 5, 1888. Serial No. 276,148. (No model.)

*To all whom it may concern:*

Be it known that I, CARL AUGUST GOTTLIEB SCHMIDT, engineer, a subject of the Emperor of Germany and King of Prussia, residing at Langensalza, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Apparatus for Treating Textile Fabrics with Steam, of which the following is a specification.

10 This invention relates to an apparatus for steaming and treating or finishing textile fabrics, which, compared with existing steaming-chambers for treating all kinds of materials with steam for finishing textile fabrics and for dyeing purposes, possesses the particular advantage that it allows of continuous working, easy accessibility and manipulation, and that it is so arranged that the textile fabric subjected to steam-pressure therein is hung up free in such manner as to pass through all the various stages of the admitted steam from the hottest to the coolest parts, and is consequently steamed in a very uniform manner.

25 The goods to be treated are placed upon suspended frames, which are arranged consecutively on the circumference of a large drum, and are caused to move past a door for the introduction and removal of the goods. They are then stopped by a connecting-bridge provided with hooks, which connect the same with the external working-floor, whence the introduction and removal is effected, thus rendering the frames readily accessible.

35 The arrangement of the apparatus is shown on the accompanying drawings.

Figure 1 is a vertical transverse section of my improved apparatus; Fig. 2, an end elevation thereof; Fig. 3, a top view with top of casing *a* removed, and Fig. 4 a detail sectional elevation of the bridge *e*.

In a large casing *a*, capable of being closed hermetically and constituting the steam-chamber, is arranged a large drum *b*, which may be constructed of iron and which approximately fills out the entire steam-space, its shaft *c* being carried in bearings in the walls of the casing. To radial arms of the drum are connected, at the circumference of the latter, pendent frames *d*, which follow the

motion of the drum and at the same time oscillate, and which may also be constructed of iron. In place of the frames *d* may be used other equivalent contrivances suited for the reception of the textile materials, suspended from the arms of the drum so as to oscillate. The drum in revolving carries the separate frames or equivalent devices consecutively closely past the charging-door *g* and the outer working-floor in such manner that the several frames *d* can be served from that place. The access to these through the door *g* is effected by a bridge *e*, which can be turned up on hinges, and is provided with hook-shaped claws *f f*, which embrace the frame or other device and prevent it from escaping while the textile material is being introduced or removed.

In order to secure the bridge to the casing *a*, the latter is provided with an inwardly-projecting bracket *e'*, to which the bridge is pivoted. Thus the bridge may be freely swung up or down. When swung down, the hooks *f*, secured to the free end of the bridge, engage one of the bars of frames *d*, and thus hold the latter securely locked to the bridge.

In order to enable the drum *b*, which is rotated by engine-power, to be turned round slowly when not so driven, in order to bring the several frames consecutively in front of the bridge *e*, so that the claws *f f* thereof may be made to engage with the frames, external gearing worked by hand is provided, as shown at Figs. 2 and 3.

After the introduction of the materials to be steamed the door *g* is closed, and steam of the desired pressure being admitted the drum *b*, with its loaded frames *d d*, is set in motion.

For regulating the pressure of the entering steam, a reducing-valve of any suitable known construction may be used, and a safety-valve *A* is provided on the casing. The water of condensation is led from the casing by suitable discharge-pipes *D*. In order to enable such water of condensation, more particularly that trickling from the roof, to be led away without coming in contact with and thereby deteriorating the materials operated upon, the casing is made with a vaulted upper part terminating in a sharp angle at top, as shown.



The slow rotation of the drum, together with the frames *d*, for the purpose of carrying the materials consecutively from the coolest part (that farthest away from the steam-inlet) to the hottest part, is effected from the outside by means of a spur-wheel *C'* and worm-gearing acting upon the shaft of the drum, or by any other suitable transmission from the motor-engine of the works, the drum being provided with fast and loose pulleys for throwing in and out of gear. With this mechanism is also combined the before-mentioned hand-power gear for bringing the frames into position in front of the bridge *e*, as described.

15 The waste steam and water of condensation is led off in the usual manner.

Having now particularly described and as-

certained the nature of this invention and in what manner the same is to be performed, I declare that what I claim is—

In an apparatus for steaming and finishing or treating fabrics, the combination of a closed steam-chamber with a door *g*, a pivoted bridge *e*, having claws *f*, and with a revolving drum *b*, and frames *d*, suspended therefrom and adapted to be engaged by claws *f*, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL AUGUST GOTTLIEB SCHMIDT.

Witnesses:

EDWARD PEITZ,  
B. ROY.