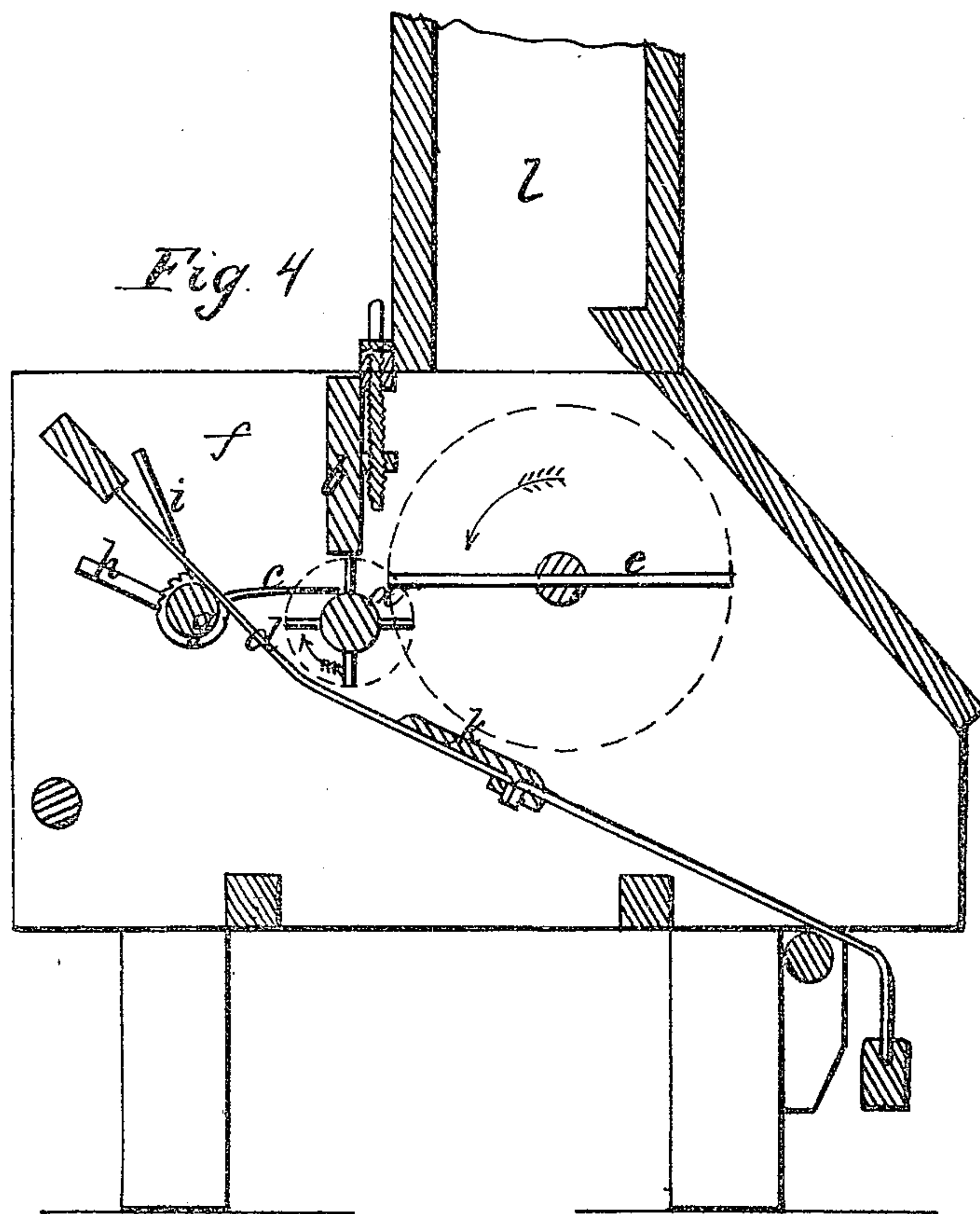
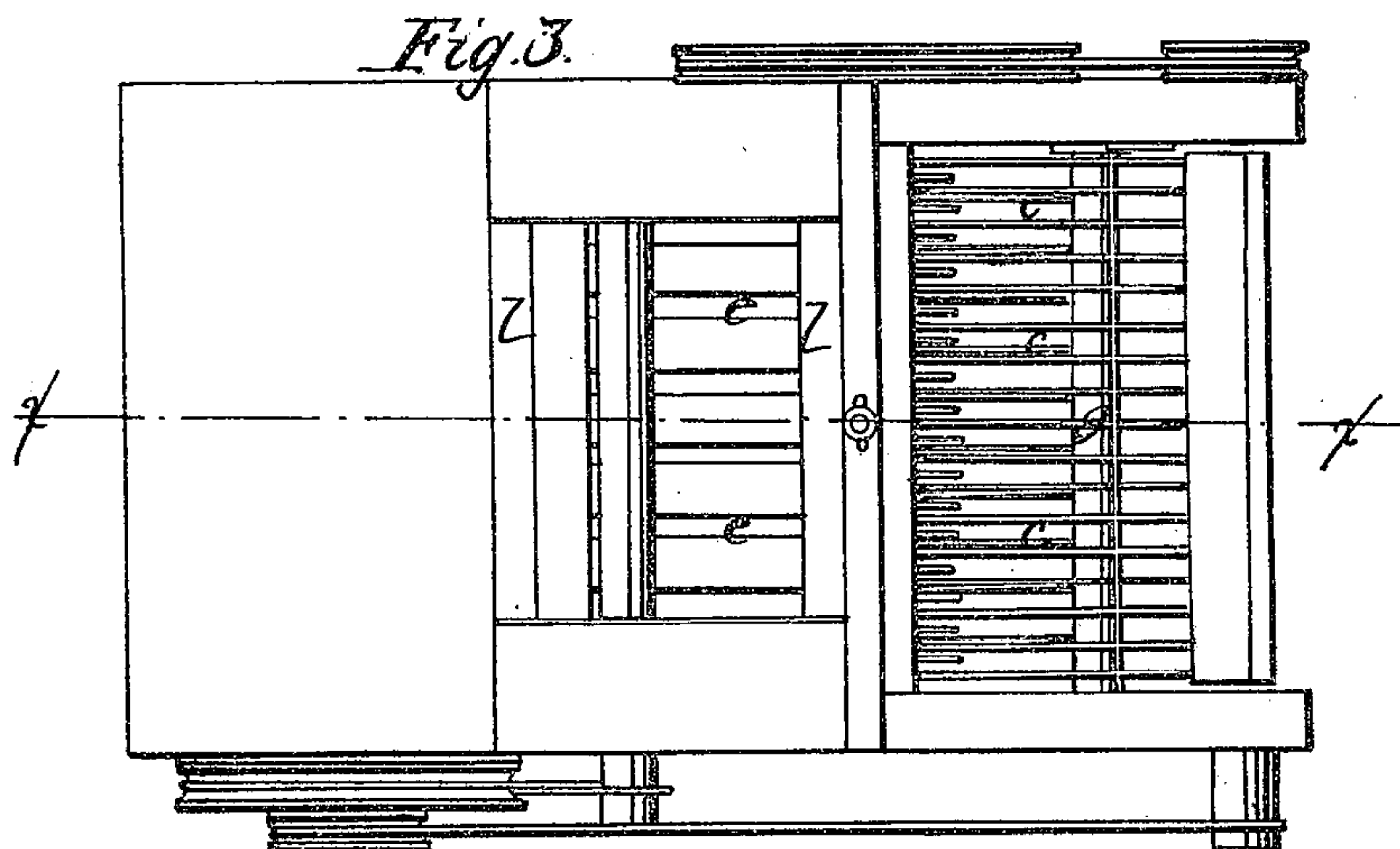


M. B. CLARKE.
COTTON CLEANER.

No. 13,898.

Patented Dec. 4, 1855.



UNITED STATES PATENT OFFICE.

MAJOR B. CLARKE, OF NEWNAN, GEORGIA.

MACHINERY FOR OPENING AND FEEDING COTTON TO THE GIN.

Specification of Letters Patent No. 13,898, dated December 4, 1855.

To all whom it may concern:

Be it known that I, MAJOR B. CLARKE, of Newnan, in the county of Coweta and State of Georgia, have invented a new and Improved Machine for Opening and Cleaning Cotton Preparatory to Ginning, and also for furnishing a regular supply of cotton to the gin; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, Figures 1 and 2 being side elevations of said machine; Fig. 3, a top view of the same, and Fig. 4 a longitudinal vertical section in the line $x-x$ of Fig. 3.

The nature of my invention consists in the arrangement of the toothed feeding roller a , the regulating gate b , and the adjustable comb c, g , with each other and with the screen d , in such a manner that the supply of cotton to the machine can be perfectly controlled, whether the cotton be damp or dry, whereas, experience has demonstrated that when only the regulating gate is used in connection with the toothed feeding roller the cotton is liable to collect between the feeding roller and the gate in such quantities as to stop the motion of said feeding roller. The teeth of the adjustable comb c, g , project from the comb-back g , and form the bottom of the hopper f , for the matted cotton to rest upon as it is thrown into the machine. The inner or front side of the said hopper is formed by the adjustable gate b . The toothed feeding roller a , is so placed that its axis will be in a vertical line with the center of the feeding gate b . Ratchet teeth are placed on one end of the comb back g , which are acted upon by the click i , and by means of which the comb teeth c, c , can be retained in any desired position. The teeth of the feeding roller a , pass up between the teeth of the comb c, g . Consequently when said comb teeth are depressed the teeth of the feeding roller will have free access to the cotton and will carry large quantities of it under the bottom of the gate b , to be operated upon by the wings e, e , of the rapidly rotating fanning beater which play between the teeth of said feeding roller. By elevating the gate b , and depressing the teeth c, c , of the comb c, g ,

the teeth of the feeding roller will be able to seize and carry forward into the machine a sufficient quantity of cotton, however damp it may be, and without danger of clogging up the feeding apparatus. When the cotton is dry and easily acted upon, the gate b , should be somewhat depressed and the teeth of the comb c, g , should be slightly elevated. As the cotton is carried under the gate b , the wings e, e , of the fanning beater, strip it from the teeth of the feeding roller and dash it with great force upon the board k , which is placed upon the screen d , immediately beneath the said fanning beater. The joint action of stripping the cotton from the teeth of the feeding roller, and dashing it upon the board k , together with the simultaneous and powerful currents of air which are made to penetrate and separate the fibers thereof thoroughly open and clean the cotton and cause it to pass down the screen d , to the cotton gin, in an open and uniform fleecy state, while all the lighter dust will pass up the chimney l , and be discharged into the atmosphere, and all the heavier dirt will fall through the rods of the screen d .

The combination of the chimney or flue l , with my machine for opening and cleaning cotton, preparatory to ginning, by which all the dust is carried out of the apartment in which the machine is placed, I consider a very valuable feature of my machine.

Having thus fully described my improved machine for opening and cleaning cotton preparatory to ginning, what I claim as my invention and desire to secure by Letters Patent, is—

The arrangement of the toothed feeding roller a , the adjustable gate b , and the adjustable comb c, g , with each other, substantially in the manner and for the purpose herein set forth.

The above specification of my improved machine for opening and cleaning cotton preparatory to ginning, signed and witnessed this 3rd day of October, 1855.

M. B. CLARKE.

Witnesses:

Z. C. ROBBINS,
R. S. SPOFFORD.

UNITED STATES PATENT OFFICE.

ISRAEL AMIES, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED APPLICATION OF EMBOSSED VENEERS.

Specification forming part of Letters Patent No. **13,899**, dated December 11, 1855.

To all whom it may concern:

Be it known that I, ISRAEL AMIES, of the city of Philadelphia and State of Pennsylvania, have invented the new and Improved Art of Embossing Veneers so as to Represent Carvings in Wood; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in placing veneers of plain or fancy woods, prepared by the process herein described, or any equivalent to the same, between dies, one of which (the matrix) has its surface carved in relief to the desired pattern and the other or plate die having cavities corresponding to the projections of the matrix. One or both dies are moderately heated, and with the prepared veneer between them submitted to a considerable pressure. On removing the veneer one of its faces represents in relief the pattern on the dies, and has all the appearance of an elaborate wood-carving. The cavities on the opposite side of the veneer I afterward fill up with any suitable plastic substance, and this being sufficiently dried and smoothed off, the embossed veneer is ready to be glued or otherwise attached to articles of furniture or other ornamented wood-work.

In order to enable others to practice my invention, I will now proceed to describe the manner in which it is carried into effect.

I will suppose that a series of twenty imitations of wood-carvings of one pattern are required. I take twenty pieces of ordinary veneer of the description of wood and size desired. These I polish on one side, removing all the saw-marks and other imperfections, the opposite side being partially smoothed with sand-paper. I now take each piece of veneer separately and paste on the back sheets of paper, and leave the whole of the twenty pieces a sufficient time to allow the wood to partially absorb the moisture of the paste. While the veneers are yet damp I place them separately between the heated dies, and submit the same to the action of any suitable press. As the projecting portions of the matrix come in contact with the pasted paper on the back of the veneer, the heat has a tendency, through the moisture already imparted to the wood by the paste, to reduce the veneer to a partially plas-

tic substance, yielding readily to the action of the relief on the matrix until the latter has by the pressure forced and compressed the wood into the cavities of the plate-die. The veneer I allow to remain a sufficient time between the dies to allow the wood, paste, and paper to become perfectly hard and dry—an effect produced in a moment by the heat communicated from the dies. The veneer is now removed, the pattern on the plate-die, even to the most minute parts, having been communicated to the polished side of the veneer. The remainder of the twenty veneers are now submitted in succession to the dies with a similar result. After filling the cavities at the back of the veneer with any suitable plastic substance and the same smoothed off the imitations of carvings in wood are ready for the ornamenting of any description of wood-work.

It should be here observed that the paste and paper on the backs of the veneers perform two important offices: first, that of reducing, in combination with the heated dies, the veneers to a partially plastic substance, yielding without splitting the wood; and, secondly, forming, after the dies have efficiently pressed the veneers, a substance at the back solidified by the heat and firmly attached to the veneer, preventing the reliefs from collapsing or altering their form after the veneer has been removed from the pressure. I have found by experiment that ordinary flour-paste is well adapted for the above purpose, and that in treating ordinary veneers the paper used should be of the consistency of the finest letter-paper.

I wish it to be understood that although I have described one particular process of treating veneers before my improved art of embossing is practiced thereon, I do not desire to confine myself to that process in every minutiae, as the same may be modified or equivalents substituted; but

I claim—

The employment of embossed veneers in the construction of furniture and for other ornamental purposes, in the manner set forth.

ISRAEL AMIES.

Witnesses:

HENRY HOWSON,
THEODORE BERGNER.