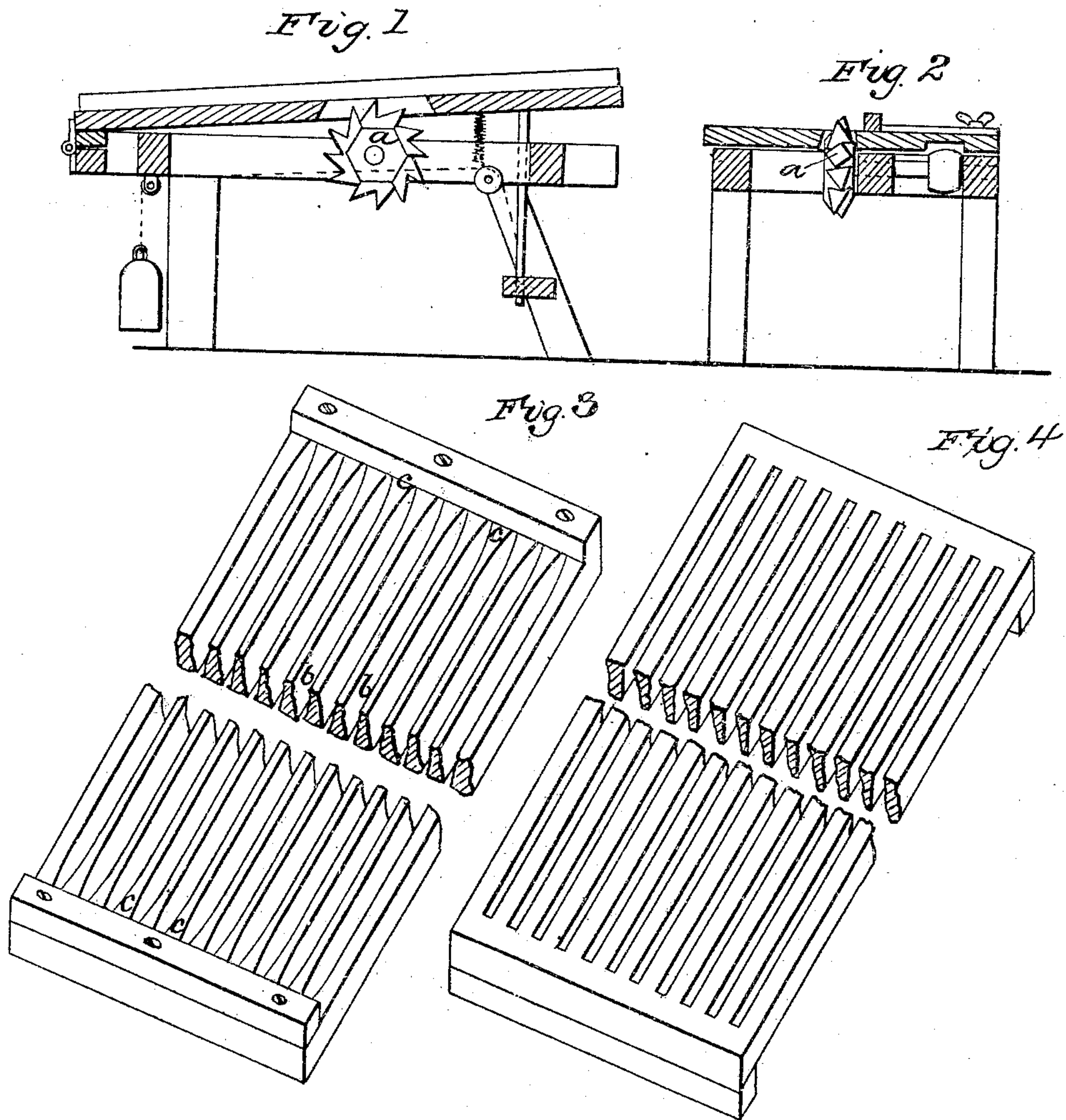


R. G. HUNT.

Wooden Sieves for Gas Purifiers.

No. 37,074.

Patented Dec. 2, 1862.



Witnesses
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J. H. Moore

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UNITED STATES PATENT OFFICE.

RICHARD G. HUNT, OF NEW YORK, N. Y.

IMPROVEMENT IN WOODEN SIEVES FOR GAS-PURIFIERS.

Specification forming part of Letters Patent No. 37,074, dated December 2, 1862.

To all whom it may concern:

Be it known that I, RICHARD G. HUNT, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Wooden Sieves for Gas-Purifiers; and I do hereby declare that the following is a full and correct description thereof, reference being had to the drawings annexed and forming a part of this specification, and to the letters of reference thereon.

The mode of making wooden sieves for gas-purifiers usually practiced is to bore conical holes in a piece or pieces of board of the required size, or to mortise a series of bars into end pieces to which they are secured by wooden pins, the sieve when made being in shape and form similar to a foundry pattern for casting an ordinary square drop-grate, such as are used in small furnaces. Another mode of making wooden sieves for gas-purifiers is described at page 207, Clegg's Treatise on Coal Gas, edition 1859, published in London. This mode is stated to be the invention of one Evans, and to consist in slotting pieces of boards by a series of chisels arranged for that purpose in a machine, and this mode resulted in converting the pieces of boards into sieves having alternate bars and slots in one solid piece which could be made wider by joining a number to the width required. Such sieves although made out of the solid wood differ from mine in respect that the bars are made of the same width on both sides, it being impossible to have any other result occur from the perpendicular action of chisels.

My said improvement consists in making a sieve or section of a sieve from solid wood by slotting with conical slots so formed at the ends as to leave a wider bar at the end on the bottom side, substantially as hereinafter described, for the purpose of sustaining and stiffening the bar and end wood, the bar being in a practical sieve frequently thirty-six inches long.

The drawings illustrate my said invention and also a machine I have invented to make the sieves which is the subject of a contemporaneous application for Letters Patent.

Figures 1 and 2 represent opposite sections of a rotating cutter-bench provided with a yielding cover. The cutter *a* is adapted to the desired shape of the slots *b* of the sieve. I place the piece of board on the yielding table against the guide and over the cutter, and press down the board and table until the cutter works through the thickness of the board, making the proper sized slot on the top side, and then keeping it pressed down I move it forward until a slot of the required length is made. The shape of the cutter leaves the bar wider at the bottom side at each end where it joins the end wood, as at *c*. The ends of the slots on the upper side require a little squaring or trimming out with a chisel.

The sieves, which are in practice about thirty to forty inches square, are made of two or more slotted pieces of boards joined together by a batten.

Figs. 3 and 4 are perspective views of sieves finished. The top of the bars may be rounded off with a grooving-plane, if desired, some thinking the gas will follow the surface of the bar up among the lime.

What I claim as my invention and improvement in slotted wood sieves suitable for gas-purifiers is—

A sieve or section of a sieve made from the solid wood by slotting, when the slots are conical in form and so formed at the ends as to leave a wider bar at the end on the bottom side, substantially as described, and substantially for the purpose hereinbefore set forth.

RICHARD G. HUNT.

Witnesses:

F. C. TREADWELL, Jr.,
J. H. FONDA.