(No Model.)

F. BUCK.

GLASS CUTTING APPARATUS.

No. 368,928. Patented Aug. 30, 1887.

Fig. 1.

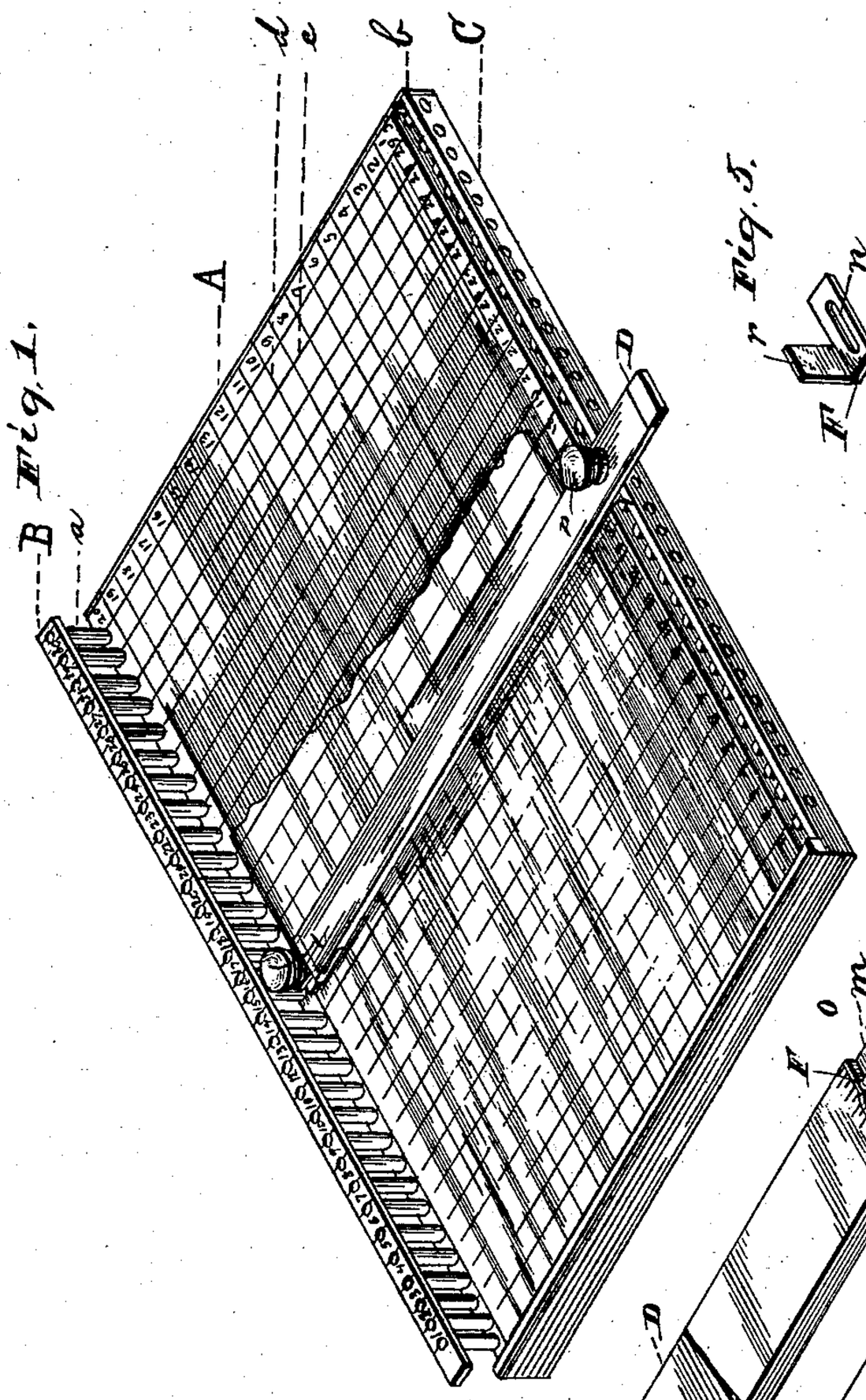

Fig. 2.

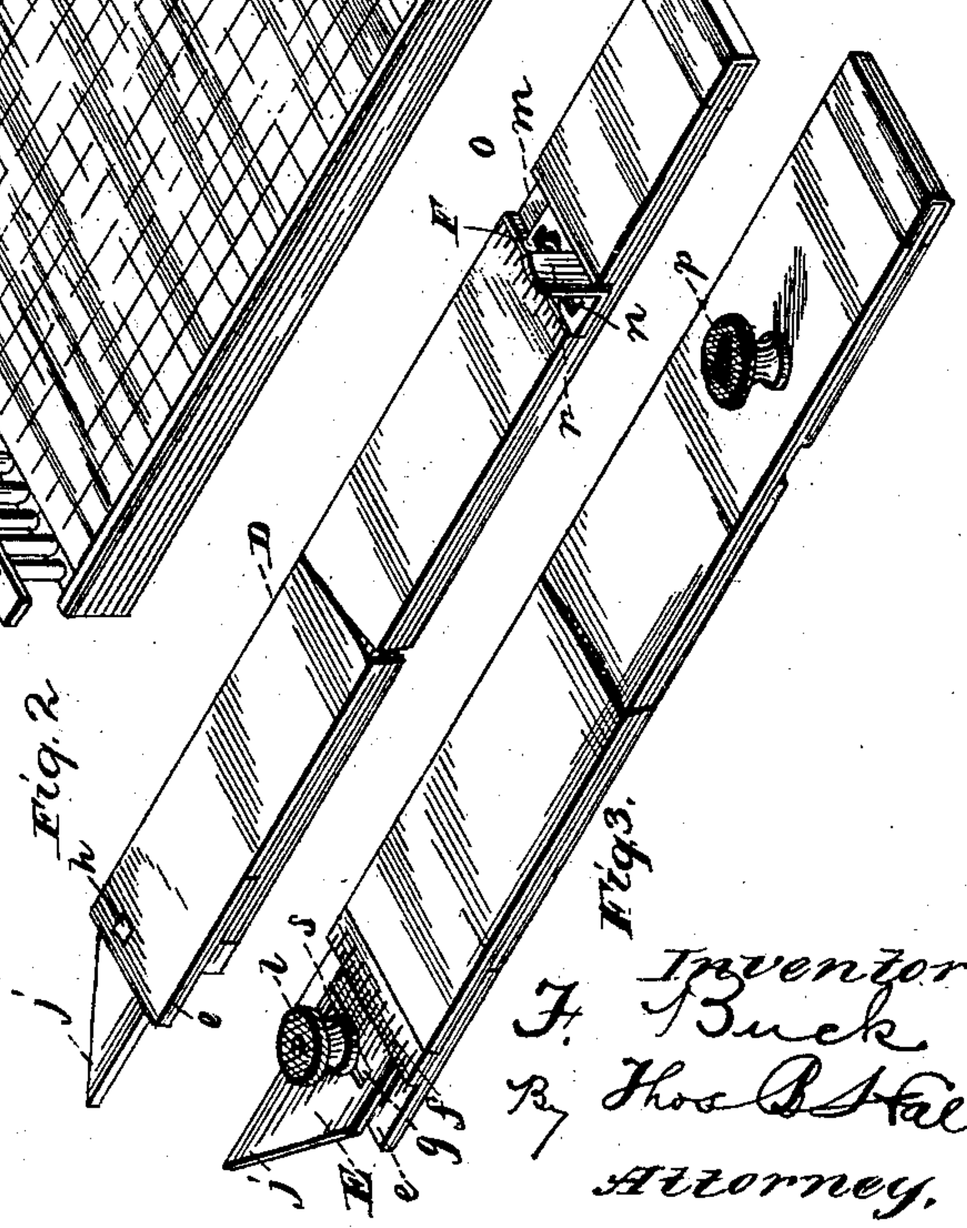

Fig. 3.

Fig. 4.

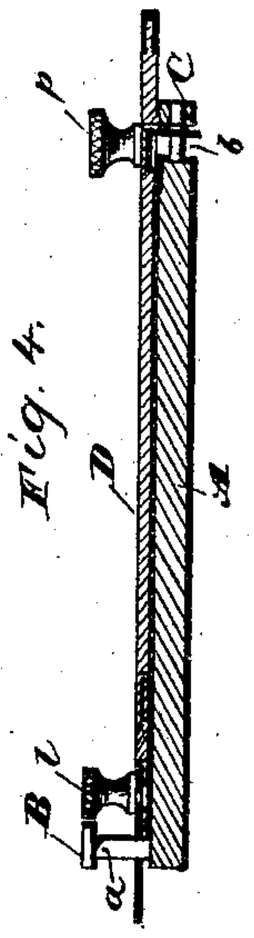

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

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GLASS-CUTTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 368,928, dated August 30, 1887.

Application filed October 9, 1886. Serial No. 215,768. (No model.)

To all whom it may concern:

Be it known that I, FRED BUCK, a citizen of the United States, residing at Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Glass-Cutting Apparatus; and I do hereby declare the following to be a description of the same and of the manner of constructing and using the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawings, forming a part of the specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

Figure 1 is a perspective view of the glass-cutting board with glass and ruler on same. Fig. 2 is a reverse perspective view of the ruler. Fig. 3 is a face perspective view of the ruler. Fig. 4 is a vertical sectional view taken longitudinally through the ruler and transversely through the board, as said parts are shown in joint operation. Fig. 5 is a detailed perspective view of gage F.

The cutting-board A is provided along its longitudinal upper edge portion with a series of upright pins, *a*, said pins connected together by a top rail, B. The lower longitudinal edge of the board is provided with a series of horizontal pins, *b*, connected together at their projecting extremities by a rail, C. The respective pins of the upper series have their longitudinal axes in the same respective planes with the respective pins of the lower series, said respective planes *c* being taken vertically and extending from top to bottom of the board. These different vertical planes are taken an inch apart from one another in a series extending throughout the width of the board. Intersecting said planes *c* are the cross-planes *d*, also taken vertically relative to the board, the series of them extending from the top to the bottom of the board. Said planes *d* are also taken an inch apart from each other. The top face of rail B, the upper edge of rail C, and the lower longitudinal edge portion of the board all are respectively provided with a series of numerals corresponding to each other as they mark where the respective planes *c* pass through. The two side edge portions of the board are respectively provided with a series of numerals corresponding to each other, as they mark the respective cross planes *d*.

The cutting-ruler D is provided at its upper edge with a transversely-recessed lip, *e*, On the face of the ruler adjacent to said lip are drawn a series of longitudinal gage-marks, *f*, corresponding to the different fractional portions of an inch. A gage, E, has adjustable bearing on said lip *e*, and is of thickness so that its upper surface is flush with the upper surface of the ruler. It is provided with a transverse slot, *g*, in which is fitted an upright stud, *h*, rigid with lip *e*. A thumb-piece, *l*, is threaded on said stud, so that its lower end may have bearing on the adjustable gage, clamping the latter at any desired point of lateral adjustment on the lip. Said gage has its right-hand side formed parallel with the ruler's length, while its left-hand side is formed at an angle of about forty-five degrees to the ruler's length. The lower end portion of the ruler has its under surface provided with a transverse recess, *m*, in which gage F fits. Said gage is provided with longitudinal slot *n*, in which is fitted screw *o*, passing through a suitable hole in the ruler. The head of the screw has bearing against the index-face of the gage F, so as to clamp the latter at any desired point of adjustment in said recess *m* by the tightening of thumb-piece *p*, threaded on the upper projecting portion of said screw. Said gage F is provided at its right-hand side with a depending prong, *r*. This prong *r* fits into the respective openings formed between any two consecutive pins *b*, while prong *j*, formed as the upper extremity of gage E, fits into the respective openings formed between any two consecutive pins *a*, said two gage-prongs being of such size as when fitted into said respective openings to be snug therein and to hold the ruler firm in position on the board.

The under face of the ruler is provided with a series of longitudinal gage-marks, *s*, the duplicate of gage-marks *f*. This provision of laterally-adjustable gages on the ruler is of use in the cutting of glass at any size other than a

whole inch size. For instance, if glass is to be cut of any size which necessitates a fraction of an inch in the ruling of it, these two gages on the ruler may be respectively set in from the right-hand edge of the ruler a distance equal to said fraction of an inch, whereupon the ruler may be used with said two gages having their projecting prongs *j r* fitted into openings between the respective series of pins they engage the same as though the glass to be cut were of a whole inch size.

It will be apparent that when the two gages are set with their right-hand side in line with the right-hand side of the ruler said ruler may be used to accurately cut glass of a whole inch size; but when glass is to be cut of any size involving a fraction of an inch, said gages are to be respectively set with their right-hand sides in a longitudinal line parallel with the right-hand side of the ruler, but at a distance to the left of the same equal to the fraction of the inch at which the glass is to be cut.

It will be apparent that other mechanical means may be employed in substitution for the specific means herein shown to secure a lateral adjustment of the sliding gages, and hence my invention contemplates, broadly, the principles of invention set forth in the claims.

I therefore claim—

1. A glass-cutting board provided at one of its longitudinal edge portions with a series of upright pins and provided at its opposite longitudinal edge with a series of horizontal pins located in a plane below that of the first series of pins, substantially as set forth.

2. The combination, with a glass-cutting board provided at one of its longitudinal edge portions with a series of upright pins and provided at its opposite longitudinal edge with a series of horizontal pins located in a plane below that of the first series of pins, of a rule adapted at its upper end to fit in between the openings formed between consecutive pairs of said upright pins, and provided at its lower end with a depending prong fitting between the openings formed between consecutive pairs of said horizontal pins, substantially as set forth.

3. The combination, with a glass-cutting board having its upper longitudinal edge provided with a series of upright pins and its lower longitudinal edge provided with a series of horizontal pins, of a rule provided at its upper end with a transversely-adjustable horizontal gage and at its lower end with a depending transversely-adjustable gage, said two gages respectively fitting between the openings formed between consecutive pairs of said upright and horizontal pins, substantially as set forth.

4. The combination, with a glass-cutting board having its upper longitudinal edge provided with a series of upright pins and its lower longitudinal edge provided with a series of horizontal pins, of a rule provided at its upper end with an angularly-formed transversely-adjustable gage and at its lower end with a depending transversely-adjustable gage, said two gages fitting, respectively, between the openings formed between consecutive pairs of said two sets of pins, substantially as set forth.

5. The combination, with a ruler, of two gages, E F, one located at its top end and the other located at its lower body portion, said gages respectively adjustable in planes transverse to the ruler, and clamping mechanism which secures said gages in set adjustment, substantially as set forth.

6. The combination, with a ruler, D, provided at its upper end with a recessed lip, *e*, of a gage, E, fitting on the latter, and a clamping device which secures said gage in set adjustment on said lip, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 6th day of October, A. D. 1886.

FRED BUCK.

Witnesses:
THOS. B. HALL,
J. B. FAY.