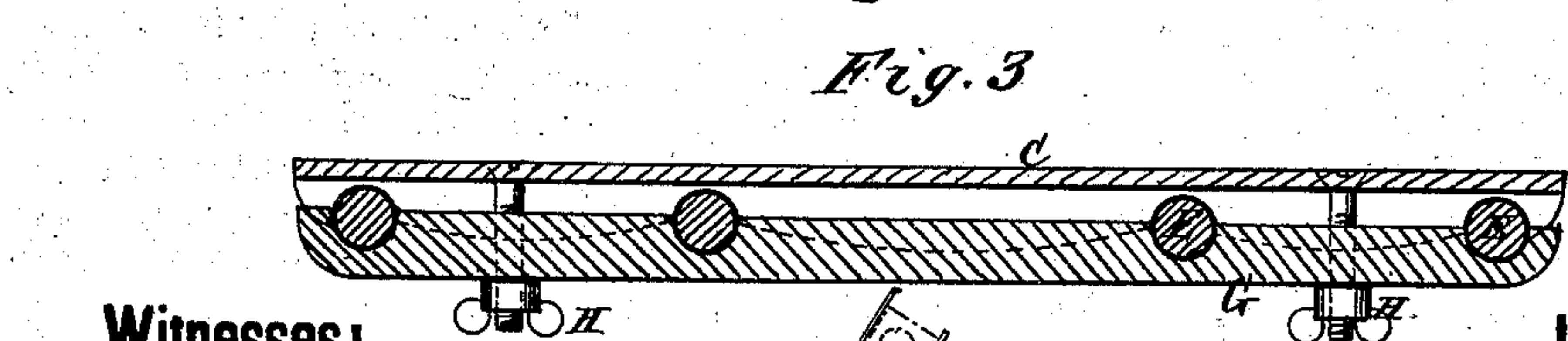
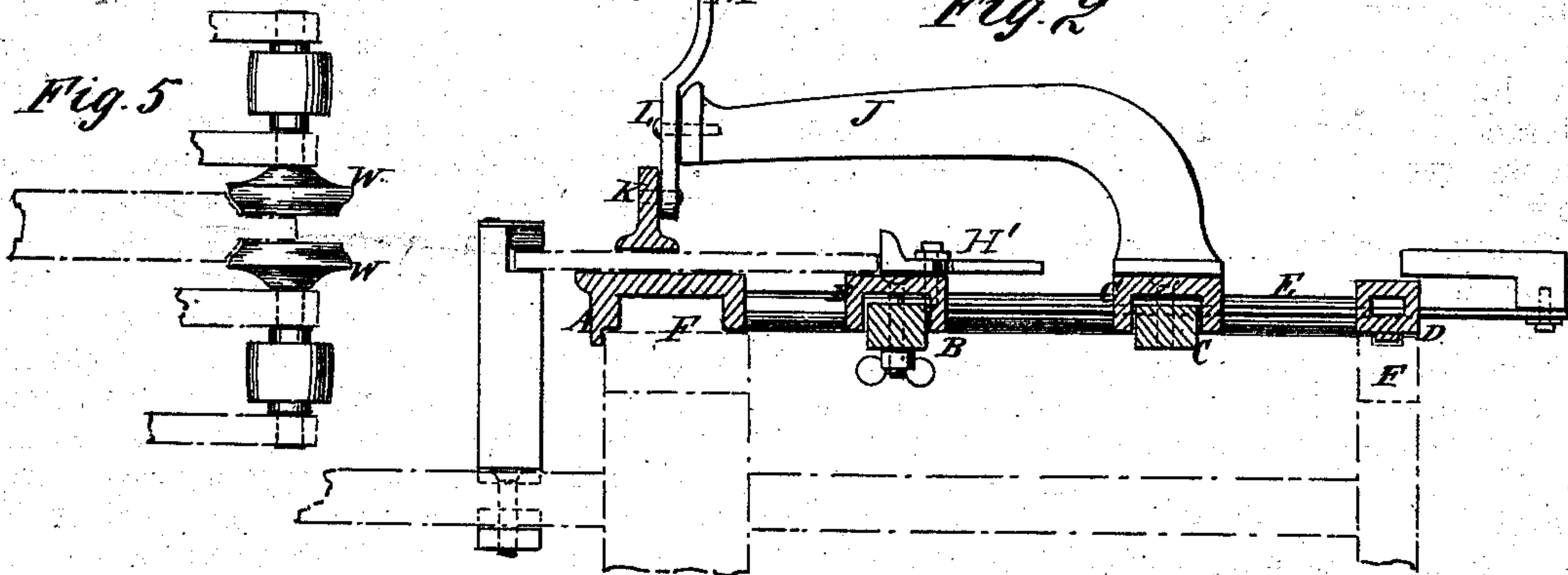
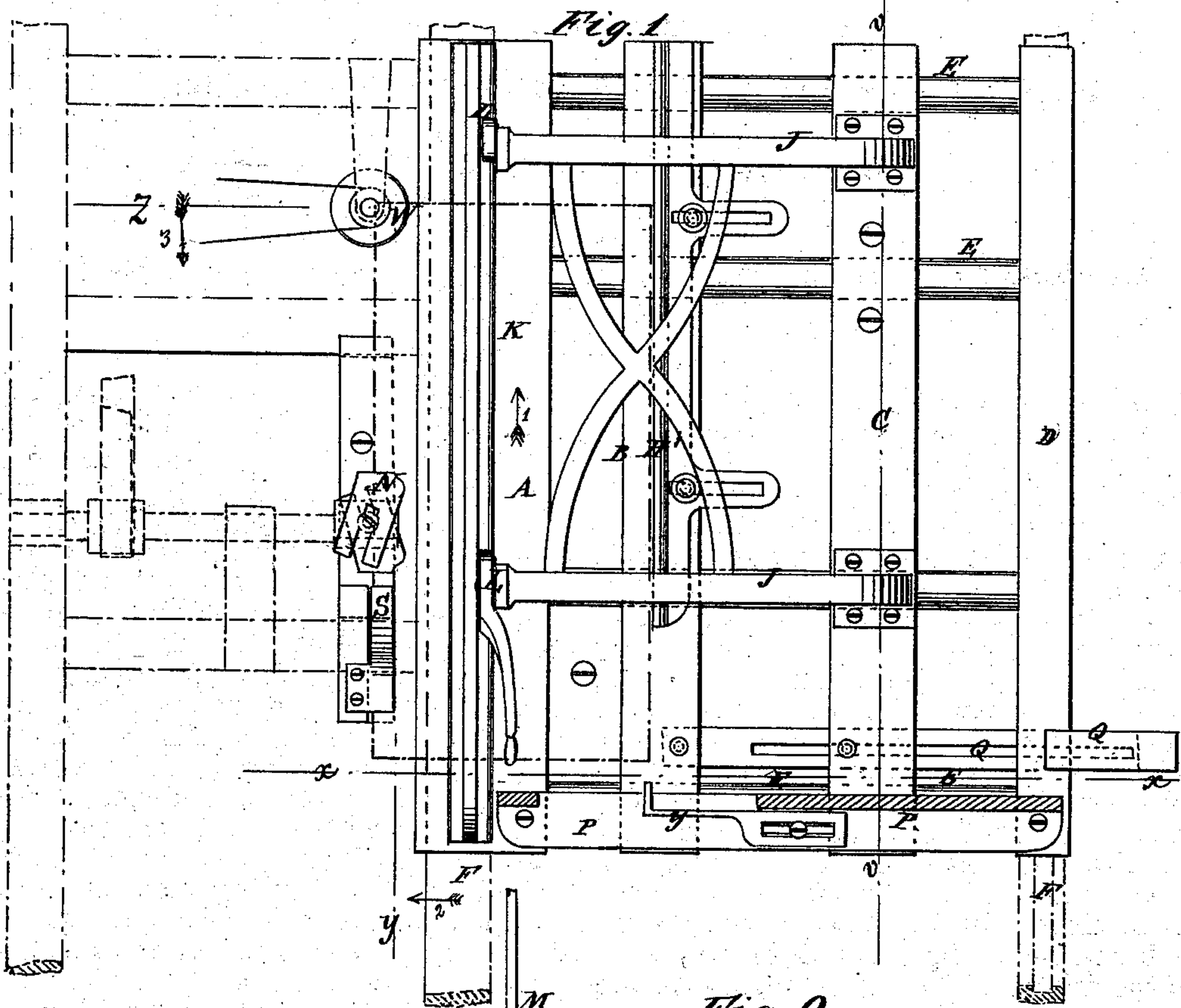


W. COBBAN & C. H. SMITH.  
Paneling Machines.

No. 155,640.

Patented Oct. 6, 1874.



Witnesses:

A. W. Almquist  
C. H. Smith

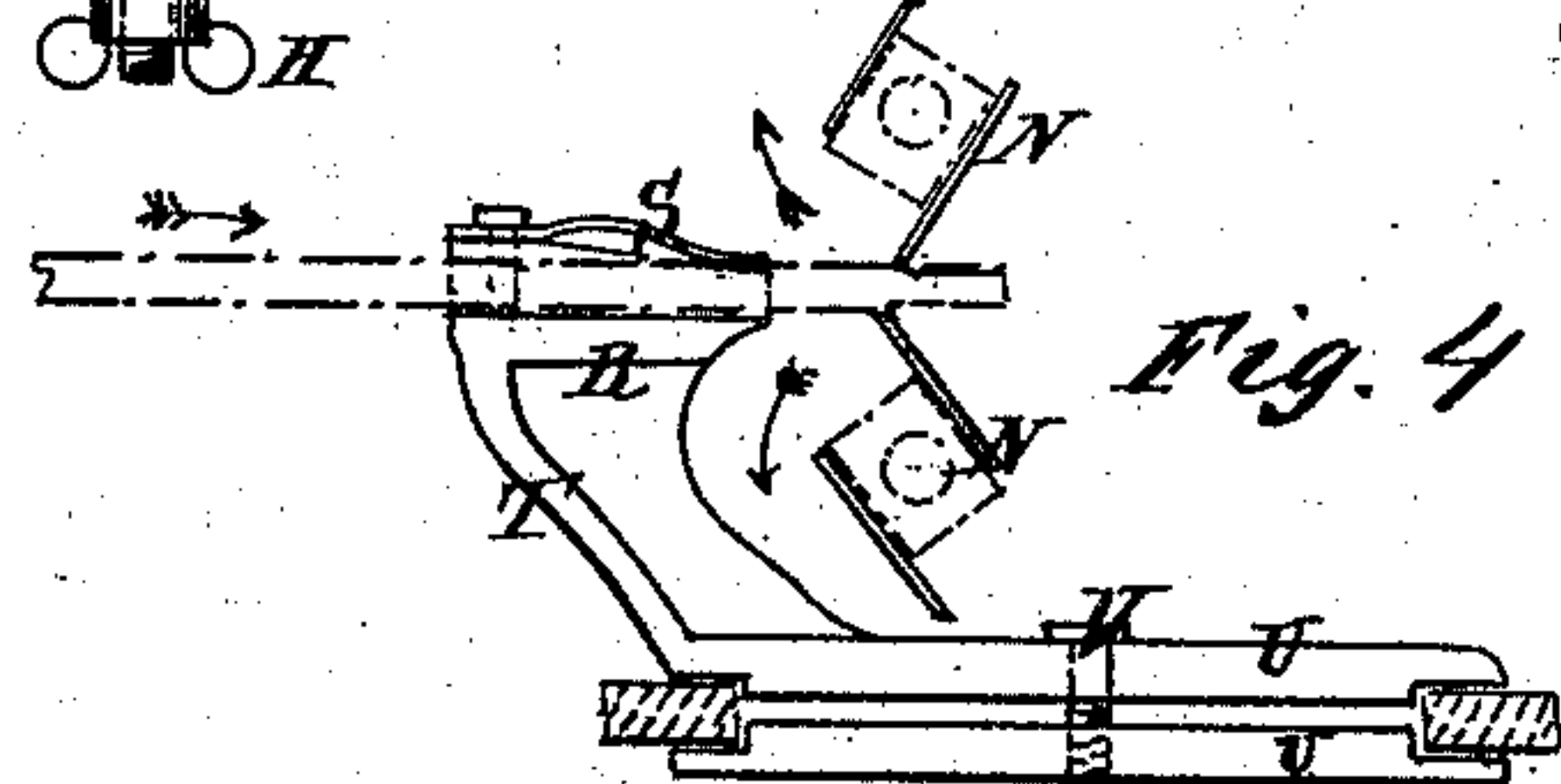


Fig. 4

Per

Inventor:

W. Cobban  
C. H. Smith

Attorneys.



# UNITED STATES PATENT OFFICE.

WILLIAM COBBAN AND CHARLES H. SMITH, OF BLOOMER, WISCONSIN.

## IMPROVEMENT IN PANELING-MACHINES.

Specification forming part of Letters Patent No. 155,640, dated October 6, 1874; application filed September 21, 1874.

*To all whom it may concern:*

Be it known that we, WILLIAM COBBAN and CHARLES H. SMITH, of Bloomer, in the county of Chippewa and State of Wisconsin, have invented a new and Improved Paneling-Machine, of which the following is a specification:

Our invention consists of a carriage adapted to hold the boards on which panels are to be raised, so as to present them sidewise and endwise to a pair of rotating panel-raising tools, and provided with a clamp, which both holds the boards in place and springs them out of wind, so that they will be dressed exactly alike on both sides all around the edges.

Figure 1 is a plan view of the carriage with a part sectioned; it also shows a portion of the machine, with which the carriage is used, in dotted lines. Fig. 2 is a transverse section on the line *xx* of Fig. 1, looking in the direction of arrow 1. Fig. 3 is a section of Fig. 1 on the line *vv*. Fig. 4 is a section of Fig. 1 on the line *yy*, looking in the direction indicated by arrow 2; and Fig. 5 is a section on the line *zz*, looking in the direction of arrow 3.

Similar letters of reference indicate corresponding parts.

A, B, C, and D are four parallel bars, which, together with the rods E, arranged at right angles to them, constitute the bed-frame of the carriage for holding and feeding the boards to the cutters. The bars A and D are adapted to work on ways F of the frame of an ordinary tenoning-machine. These two bars are rigidly connected together by the cross-rods E; but the bars B and C are fitted on the rods and clamped to them by bars G and bolts H, so that they can be shifted sidewise on them. The bar B carries an adjustable gage, H', by which the boards are to be gaged when dressed on the edges. The bar C carries arms J, which extend upward and forward over the carriage and the boards to be dressed nearly to the cutters, to support the clamp-holder K, which is suspended from their ends by pivoted rods L, so as to be

forced down by a lever, M, in such manner as to clamp the boards on the bar A, and straighten them if warped, and hold them while being dressed by the rotary panel-raising cutters N, between which the ends and edges are passed, as represented in Fig. 4. P is a stationary gage at the front end of the carriage, against which the edges of the boards are placed to square the ends to the cutters when they are to be dressed. Q is an adjustable gage, regulating the width of the work on the ends of the boards. Y is a spring-stop for acting against the side of the board at the corner, in conjunction with gage H', to prevent the board from swinging back at the end. It is to be made adjustable with the gage H'. It springs back out of the way when the boards are arranged against gage P. The panel-raising cutters are placed one above another, as shown in Fig. 4, and in front of them we arrange a block, R, the same height as the bar A, so that the boards will just pass over it nicely; and above it we arrange the spring S, under which the board runs. These devices are arranged as close to the cutters as they can be, and serve for chip-breakers for both cutters. The block is beveled at the end next to the cutter to allow of advancing it as close as possible; but the spring, being thin at the end, does not require to be beveled. The block R is supported on the arm T, which is supported on the frame of the machine in any suitable way—say the clamp U V. Just behind the cutters N we propose to arrange in practice a pair of sand-papering or polishing rotary tools, W, suitably for polishing the surfaces planed. They are placed one above and the other below the boards, on the independent vertical axes of the cope-cutters of the ordinary tenoning-machine, so that they revolve horizontally and dress both sides planed.

The carriage is constructed so as to fit on the ways F (shown in dotted lines) of a machine for tenoning door-frames, so that by removing the regular carriage, changing the cutter-heads, and applying the chip-breaker

and the polishing-tools, the principal portion of the ordinary tenoning-machine may be utilized for panel-raising.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The carriage of a tenoning-machine provided with the arms J, press-clamp K, and the gages H' P Q, substantially as specified.

2. The combination, with arms J, of bars B and C, secured to the rods E by clamping-bars G and bolts H, substantially as specified.

3. The combination of spring-gage Y with gage H', substantially as specified.

CHAS. HAZOR SMITH.

WILLIAM COBBAN.

Witnesses to signature of SMITH:

T. B. MOSHER,  
F. MCARDLE.

Witnesses to signature of COBBAN:

GLEM. W. PERKINS,  
C. D. TILLINGHAST.