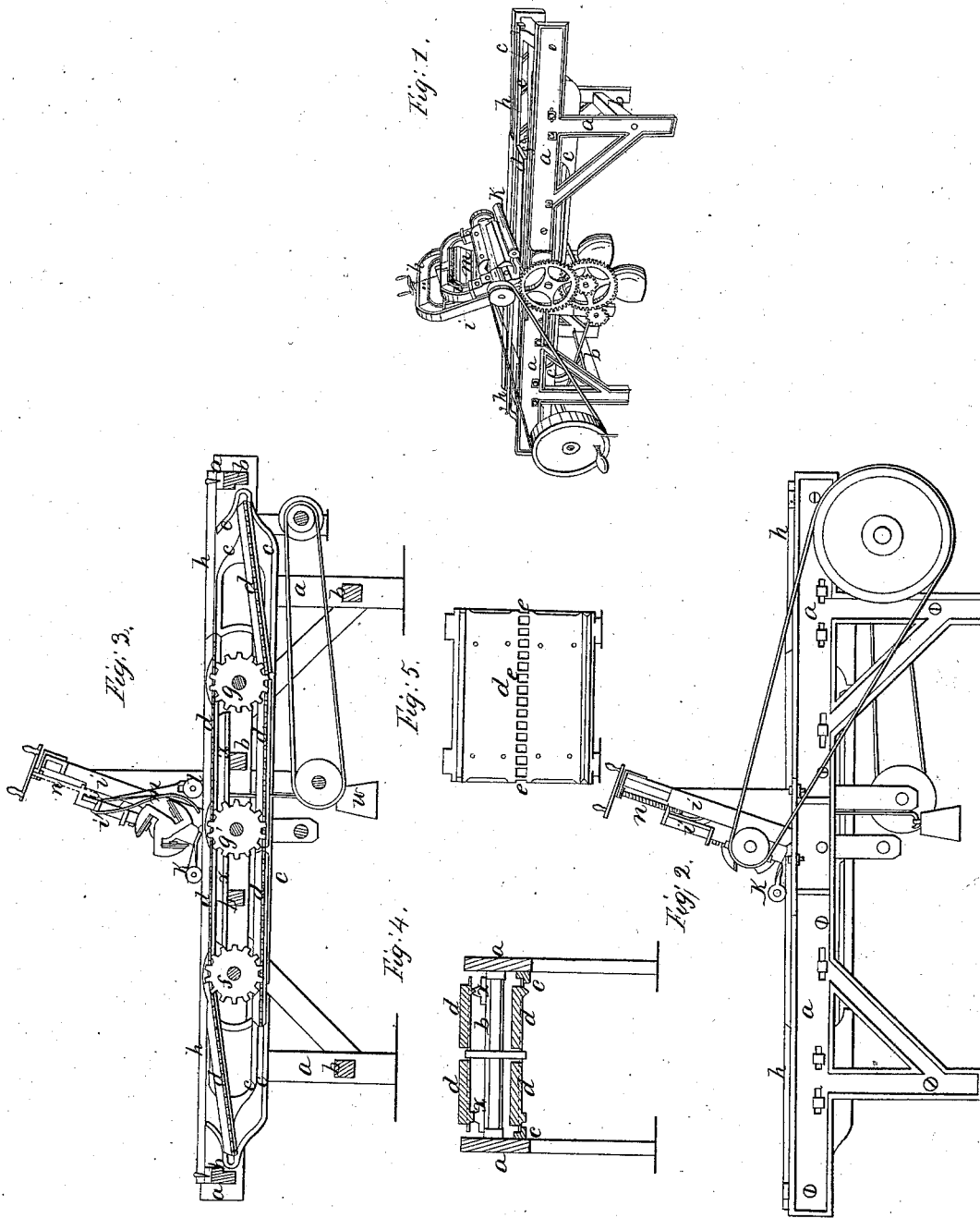


B. Brown

Wood Planing Machine.

N^o 4,225.

Patented Oct. 9, 1845.



UNITED STATES PATENT OFFICE.

BENJN. BROWN, OF BURLINGTON, VERMONT.

PLANING-MACHINE.

Specification of Letters Patent No. 4,225, dated October 9, 1845.

To all whom it may concern:

Be it known that I, BENJAMIN BROWN, of Burlington, in the county of Chittenden and State of Vermont, have invented a new and useful Improvement in Planing-Machines for Planing Lumber; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part thereof, in which—

Figure 1 is a perspective view. Fig. 2 is a side elevation. Fig. 3 is a longitudinal vertical section. Fig. 4 is a cross section; Fig. 5, a section of the carriage.

The nature of my invention consists in the endless carriage and in combination therewith the adjustable rollers and gate in which the cutters are affixed.

The construction is as follows: A suitable frame *a, a*, is made of cast iron or other material. At the sides and posts which are connected together by a sufficient number of wooden braces *b, b*, on the inside of each of the side pieces are guiding ways *c*, for a purpose hereafter described. A series of castings or metal plates *d* are made, as shown detached in Fig. 5, which forms a section of the carriage, on which the board or other article to be planed rests; through the center of this plate from end to end are apertures made so as to have an open rack *e*, into which cog-wheels play as will presently appear. Each of the plates has two strips of wood affixed to its upper side one on each side of the rack and covering the rest of the surface of the plate.

The plates move along horizontally guided by the ways *c* under the revolving cutter at which point they are sustained by ribs *w*, supported in and attached to the frame, they slide over these and form a solid bed for the stuff to be planed on, at each end of the machine the guide ways descend and form a groove which allows the outer end of the plate to descend about half way down to the position they assume on returning at which time the inner end of the plate arrives at the cog wheel (*f*) situated the distance of the length of a section plate from the end of the machine, and in the guide ways there is a semi-circular branch concentric with said cog-wheel; this arrangement permits the section to fall and be car-

ried under the cog-wheel, it being kept in gear by said guides. At the opposite end a similar arrangement is made for the purpose of raising the sections by means of another wheel (*g*), a third feeding cog-wheel *g'* is placed at the center by which the segments are moved and this is connected with the moving power in any convenient way so as to adjust the feed. There is a bar (*h*) affixed to the frame at each end that extends the whole length thereof directly over the racks above named in the sections and of the same width as the space between the strips of wood that cover the plates into which it fits and forms a level even surface under the plane to support the article to be planed. Above the center of the bed there is a gallows frame (*i*) bolted to the frame which stands in an inclined position within which, or on the upper side of which a frame or gate (*i'*) slides in which the cutter is hung. This cutter is of ordinary construction having three knives in it, but with double instead of single irons in it as are generally used; a guiding roller (*k*) is attached to the gate by strong springs on a level with the lower line of the circumference of the cutter and in front thereof. Behind the cutter where the stuff to be planed is entered there is another roller (*l*) that is kept down upon it with weights (*w*) and between which and the bed or carriage the stuff is held. A shield plate (*m*) is put behind the cutter to prevent clogging with chips.

The gate with the cutter can be graduated to any height while the machine is in operation by means of a screw (*n*) that is attached to the center of the gallows, and turns in a nut in the gate which moves it up and down.

It is obvious that there can be two cog-wheels, instead of those below *g* one on each side which will save the necessity of an opening in the center.

Having thus fully described my invention, I wish it to be understood that I do not claim an endless platform formed of sections nor do I claim the manner of moving them, they having been before used for a horse-power. But

What I do claim as my improvement and desire to secure by Letters Patent is—

1. The endless sectional platform or car-

riage such as herein described which forms the bed for planing on in combination with the rotating planing cutters, in the manner and for the purpose set forth, whether the
5 central bar be used or not.

2. I also claim the sectional platform or carriage in combination with the central

bar, for the purpose and in the manner described.

BENJAMIN BROWN.

Witnesses:

W. EMERSON,
CHAS. INGALLS.