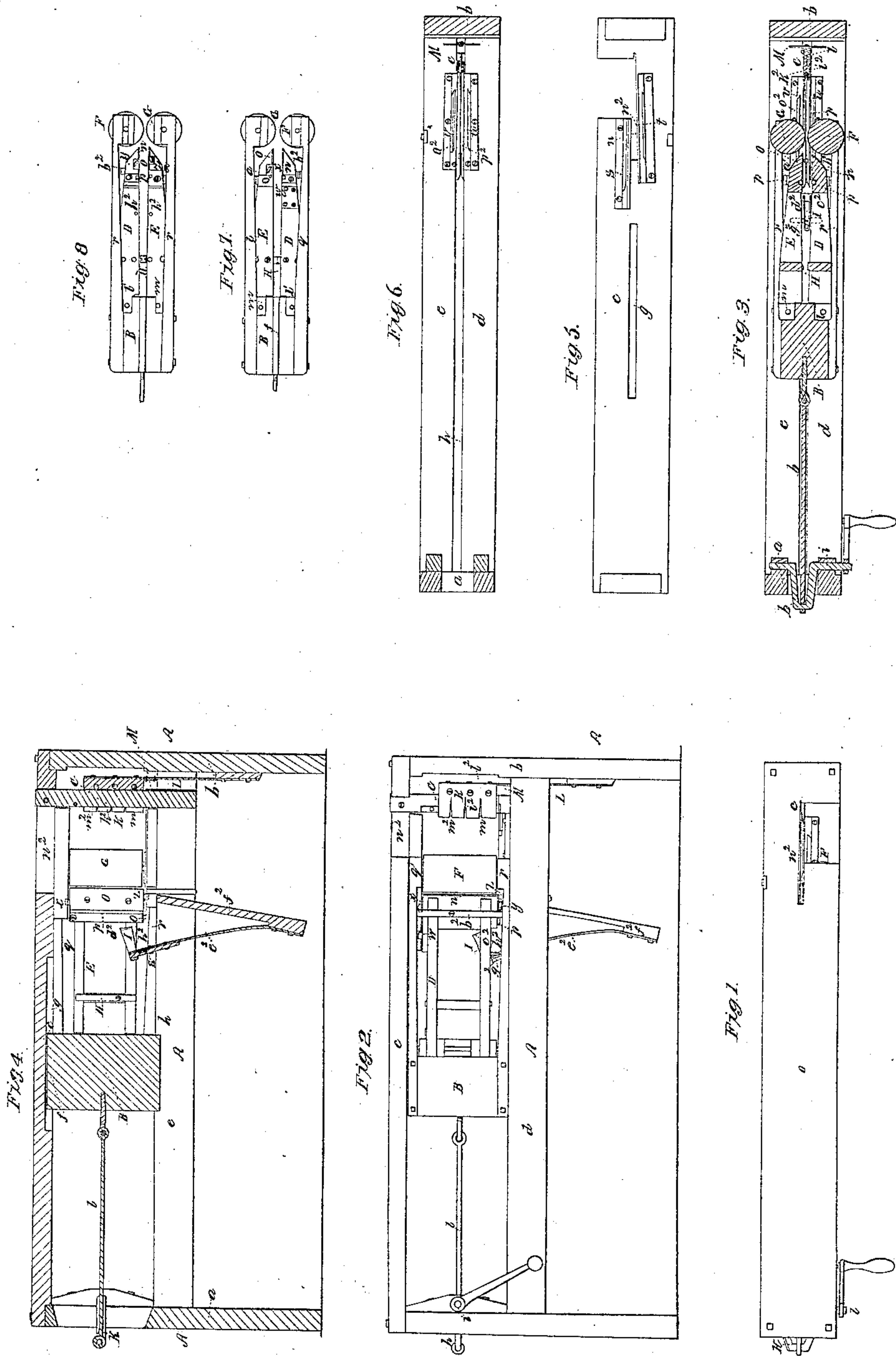


L. Stockwell, Planing Shingles.

N^o 6,296.

Patented Apr. 10, 1849.



UNITED STATES PATENT OFFICE.

LEWIS STOCKWELL, OF SUTTON, MASSACHUSETTS.

MACHINERY FOR DRESSING SHINGLES.

Specification of Letters Patent No. 6,296, dated April 10, 1849.

To all whom it may concern:

Be it known that I, LEWIS STOCKWELL, of Sutton, in the county of Worcester and State of Massachusetts, have invented a new and useful Machine or Improvement in Machinery for Shaving or Planing Shingles; and I do hereby declare that the same is fully represented and described in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a top view of my improved machine; Fig. 2, a side elevation of it; Fig. 3, a horizontal and longitudinal section of it; Fig. 4, a central vertical, and longitudinal section of it; Fig. 5, is a view of the underside of the top rail of the frame, and the inclined cam grooves applied to it. Fig. 6, is a top view of bottom rails, and cam grooves of the said frame.

In the said figures A, exhibits the main frame which supports the operative parts of the machine, the said frame being composed of the two upright ends *a*, *b*, the horizontal top board or rail *c*, and the two horizontal bottom rails or timbers *d*, *e*.

B, is a movable carriage or frame arranged between the two bottom rails *d*, *e*, and the top rail *c*, the said carriage having one tenon *f*, projecting up from its top, and entering a groove or slot *g*, made in the top board. It (the carriage) has another and similar tenon, which is made to extend from its bottom, and enter the space *h*, formed between the two timbers or rails *d*, *e*. A reciprocating rectilinear motion may be imparted to the said carriage by means of a crank shaft *i*, a bell crank *h*, and a connecting rod *l*, the latter being jointed to the carriage and bell crank. The crank shaft being put in revolution causes the carriage and the attachments thereof, to have a motion such as above described, and in a direction first toward and next away from a stationary upright bearer or bar C. To the said carriage B, two knife or plane iron frames D, E', are jointed at their rear ends so as to turn or have a slight horizontal movement respectively on two pins *l'*, *m*. To the front ends of the said frames D, E', two cutting knives or plane irons *n*, *o*, are respectively fastened, each cutting knife having a small vertical friction roller *p*, applied to such frame, as seen in Figs. 3 and 4.

Besides the frames D, E', the carriage B,

supports two vertical pressure rollers E', G, each being sustained by two strong springs *q*, *r*, made to project from the carriage as seen in the drawings. The shingle while in the act of being reduced or planed, is placed vertically between these rollers and so that its small or thinnest end may rest against the front edge of fixed bearer C, said edge having a shallow groove made in it vertically and for the purpose of receiving and sustaining the small end of the shingle.

During the time the knives or planes are advancing toward the bearer C, they are caused to gradually approach each other, the same being effected by four guide grooves *s*, *t*, *u*, *v*, arranged as seen in the drawings, or two studs or projections from each knife frame D, E', being made to respectively enter two of the said grooves. A spring or springs H, H, are placed between the two frames D, E', and made to act on them in such manner as to force them asunder, and cause them to move laterally after the shaving or planing of a shingle has been effected, the said lateral movement of each frame being sufficient to carry its studs or projections, which play in the guide grooves sidewise and entirely out of the said grooves.

Fig. 7, exhibits a top view of the front part of the two frames D, E', and shows the positions of two upper studs *w*, *x*, or those of the grooves *s*, *t*. Fig. 8 is an underside view of the bottom part of the said frames D, E', and the two studs *y*, *z*, of the two grooves *u*, *v*. A spring *a'*, is affixed to the frame E, and bears against the spring of the pressure roller G. There is also a bar *b'* similarly applied to the frame D, and made to extend therefrom, so that the springs of the other pressure roller may strike against it and cause an inward movement of the frame D as soon as it and its studs have moved back far enough to pass beyond the side of their guide grooves, the said bar *b'* causes the roller to be pressed out for the introduction of the shingle slab. The rear end or butt of the shingle is held or grasped by a spring holder I, which consists of two springs *c'*, *d'*, united to an upright spring *e'*, and made to stand at an angle with each other. The said spring *e'*, is fastened at its lower end to an arm or stud *f'*, which extends down from the main frame. A cross bar *g'*, is applied transversely across the upper part of the spring

e^2 , and in such position, as to be met by a pin h^2 , made to extend from each frame D, E', in the position as seen in the drawings.

During the return or back movement of the carriage the spring holder I, will be thrown back out of the way of the shingle, but while the carriage is made to advance, the spring e^2 , is relieved and throws forward the holder I, and causes it to receive the butt of the shingle, and hold the shingle in place, while the pressure rollers are acting against the front part of the shingle, the spring holder I, serving to steady the shingle under such circumstances.

Another spring holder K, is also employed in conjunction with the bearer C, to steady the small end of the shingle. The said holder K, is made of two plates i^2 , k^2 , of spring steel affixed to opposite sides of a block l^2 , which is made with a recess to receive and encompass the bearer C, as seen in the drawings. The said holder K, is mounted upon a spring L, which has a cross piece or bar M, applied to it against which the front ends of the springs r , r , abut during the latter part of their advancement forward, the continued movement of the frame D, E causing the holder I to move forward with them until it passes entirely by the end of the shingle or far enough to allow the knives to reach or very nearly reach the bearer C. Each spring plate i^2 , k^2 , is sawed through as seen at m^2 , m^2 , &c., or is composed of several springs or spring plates, one being arranged above the other, the object of the same being to allow the plate to accommodate itself to any wind or bend, which there may be in the end of the shingle, when placed between the two plates i^2 , k^2 .

When a shingle is introduced into the machine it is passed down through a recess or passage n^2 , made through the upper board of the frame, thence into the spring holder

K, and between the two pressure rollers F, G, and is dropped and rests on two horizontal receiving spring bars p^2 , o^2 , whose front ends are made fast to the machine, while their rear ends are bent a little laterally so as to allow the spring e^2 of the holder I, to pass between them, and separate them at a proper time far enough to allow the shingle after being planed, to fall downward between the said bars o^2 , p^2 , and be discharged from the machine.

Having thus described my improved machine I wish it distinctly understood that I lay no claim to the mere invention and use of two knives arranged and operated as above described, and for the purpose of shaving a shingle, but that which I do claim is—

My improved organization or combination of mechanism for holding shaving and discharging the shingle, the same consisting of the following elements as constructed and made to operate substantially as specified, that is to say. 1. The knife frames D, E, and cutting knives. 2. The system of pressure rollers and their supporting springs. 3. The spring holders I. 4. The bearer C. 5. The spring holder K. 6. The spring discharging and receiving bars o^2 , p^2 , meaning to claim the spring holders, the bearer and the spring receiving and discharging bars, in combination with one another, and the cutting planes, and as constructed and made to operate therewith substantially as above described.

In testimony whereof I have hereto set my signature this thirty first day of May A. D. 1848.

LEWIS STOCKWELL.

Witnesses:

WARREN HUMES,
PHEBE HUMES.