

*J. Nyman,
Wiring Blinds.*

N^o 21,292.

Patented Aug. 24, 1858.

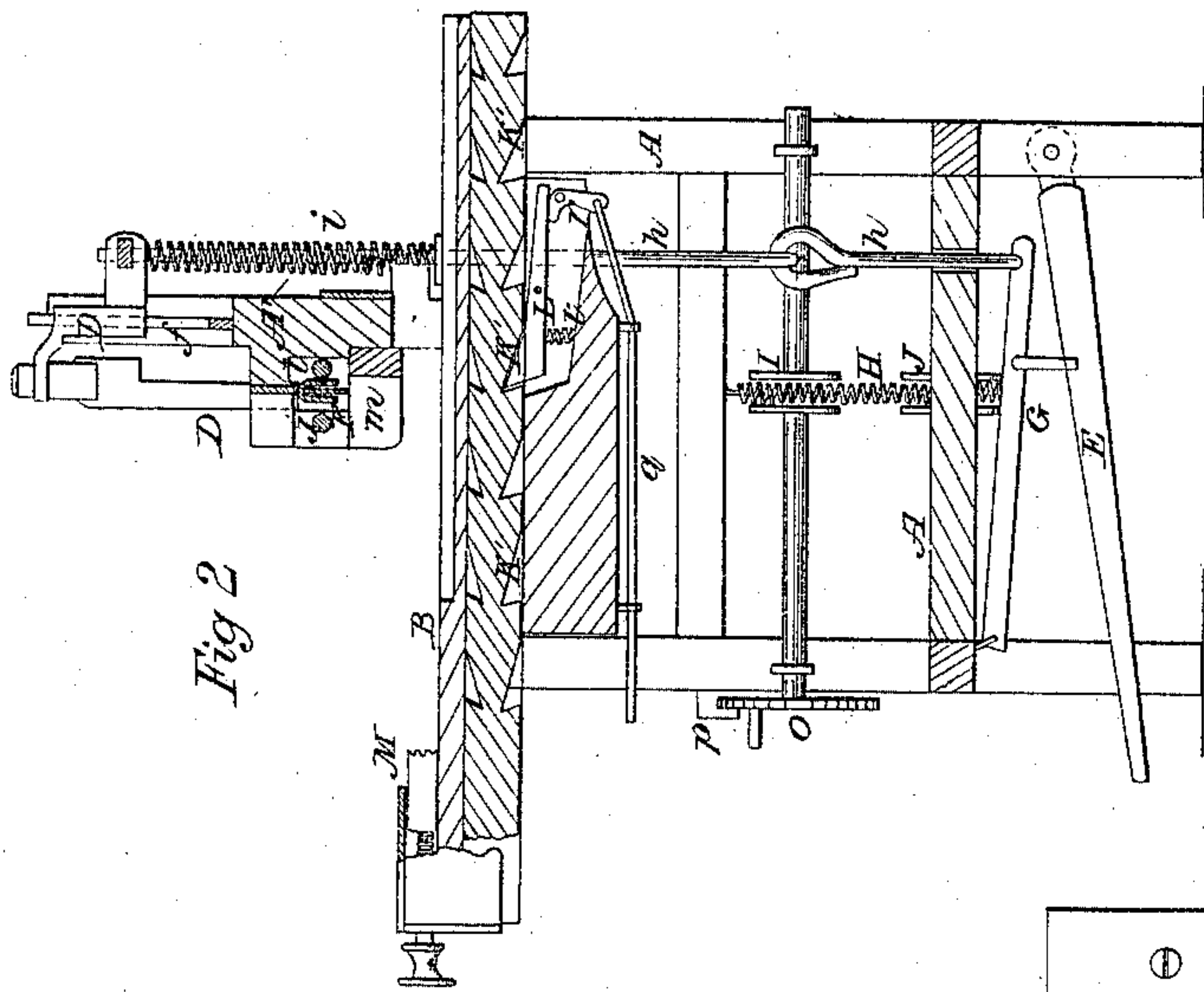


Fig 2

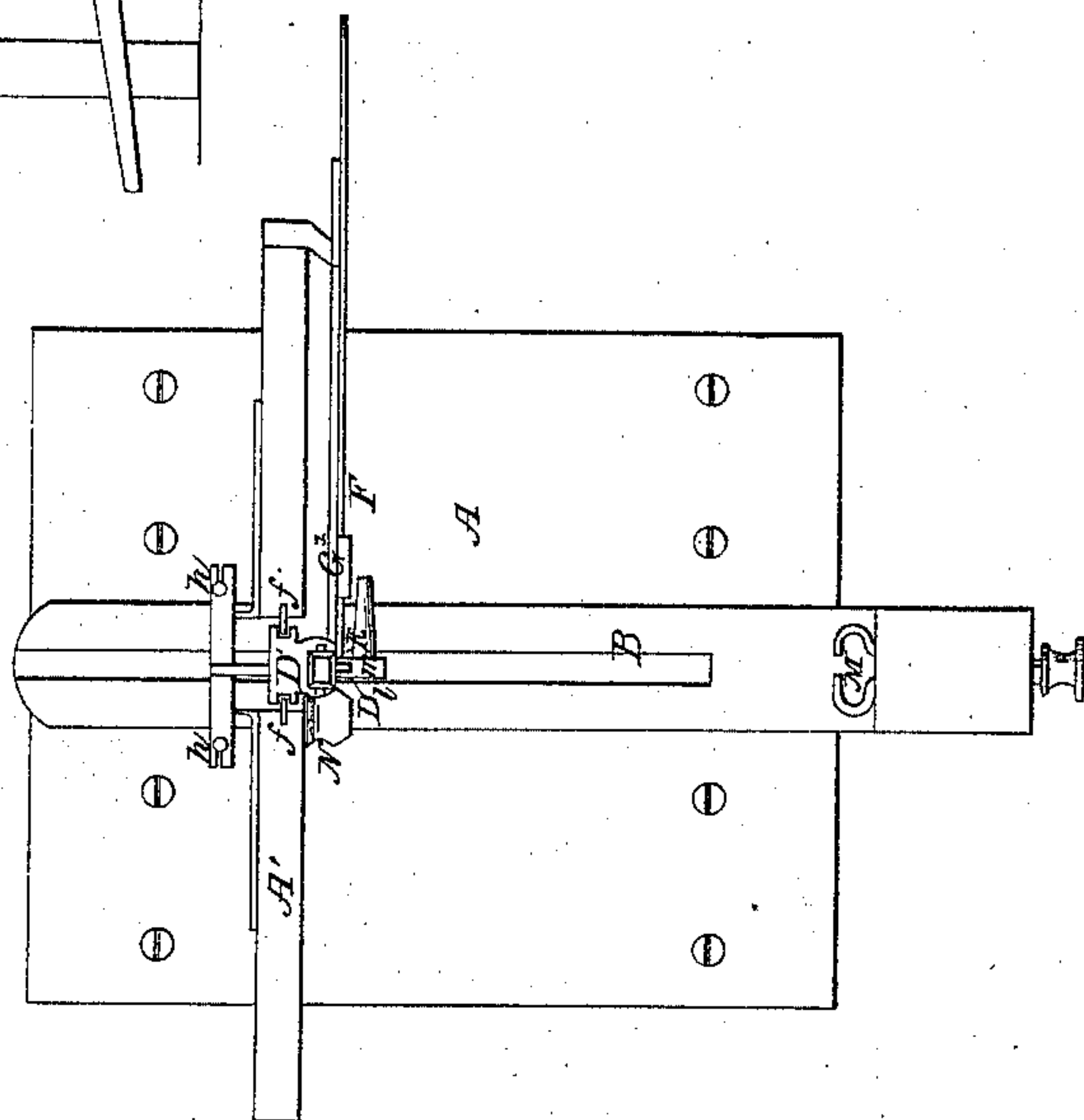


Fig 3

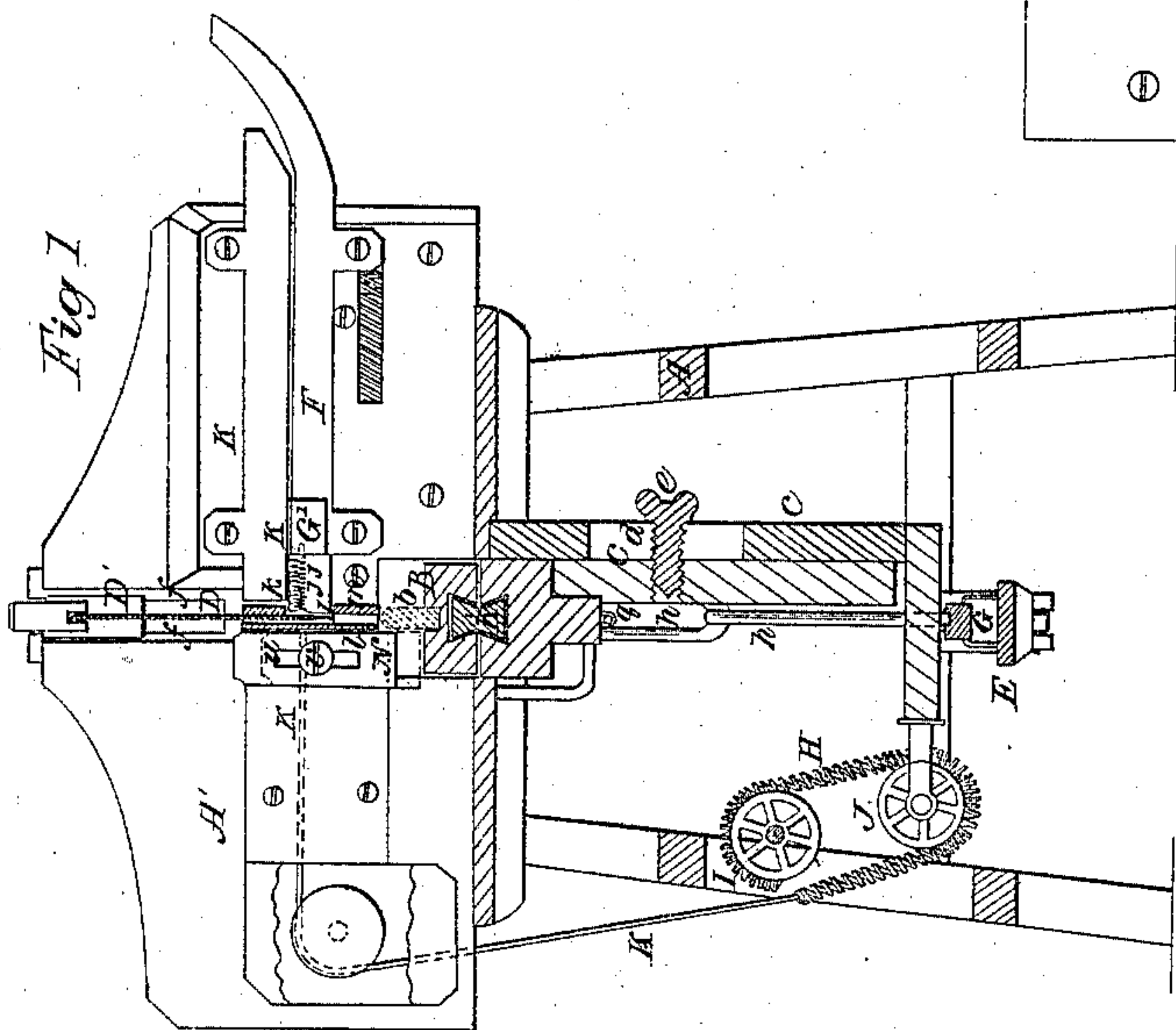


Fig 1

UNITED STATES PATENT OFFICE.

JAMES WYMAN, OF SCHAGTICOKE, NEW YORK.

MACHINE FOR SETTING THE STAPLES IN BLIND-SLATS.

Specification of Letters Patent No. 21,292, dated August 24, 1858.

To all whom it may concern:

Be it known that I, JAMES WYMAN, of Schaghticoke, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Blind-Slat-Staple-Setting Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a vertical transverse section of a machine constructed with my improvements. Fig. 2, is a vertical longitudinal section of the same. Fig. 3, is a plan or top view of the same.

Similar letters of reference, in each of the several figures, indicate corresponding parts.

My machine is designed for performing the operation of setting the staples correctly on the slats, and then by the aid of the same punch and similar staples to those set in the slats, to connect the slats to the rods by which they are to be adjusted or opened and closed when in use.

The nature of my invention consists in the arrangement and combination in the manner herein described of the vertically sliding punch, spring supporting and stop bar upon which the staples are hung and by which their descent, except when forced down by the punch, is prevented, spring feeding slide and grooved sliding bar or anvil on which the slats, or the rods which support the same, are placed, while staples are being set into the same.

It also consists, in combination with the above, in furnishing the grooved sliding bar or anvil with ratchet teeth on its under side and with a dog on its upper side near its front end, and arranging said bar or anvil in such relation to an adjustable spring pawl on the standard which supports said bar or anvil, and an adjustable gage plate, that the proper distance between each staple driven into the rods which carry and adjust all the slats can be accurately gaged.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

A, A', represents the frame of the machine. B, the sliding anvil on which the staples are set into the slats. This anvil is furnished with a groove into which the

slat *b*, fits snugly as shown in red while having the staple set into it.

C, is an adjustable support for the anvil. This support is connected with a standard *c*, of the frame A, by means of a slot *d*, and set screw *e*. By being thus connected, it, with the anvil, can be adjusted up and down so as to suit slats of different widths, the slot, when the set screw is loosened, allowing for said adjustment.

D, is a vertical punch attached to a gate D', arranged above the anvil in guides *f*, *f*, of the part A', of the frame, as shown. This punch is moved down by means of a treadle E, which is combined with the gate of the punch by means of a lever G, and connecting rods *h*, *h*, and it is returned or moved upward by means of spiral springs *i*, *i*, arranged over said rods, as shown.

F, is a staple supporting rod. It is straddled by the staples *j*, *j*, as shown in the drawing. This rod stands at right angles to the punch and its inner end is rounded off at *k*, and is kept in close contact with the plate *l*, of a flat tube *m*, by means of a spring *n*, said tube being the guide to the lower end of the punch and the staple during the operation of setting the staple into the slat.

G', is a slide for feeding the staples separately to a position for being driven into the slat by the punch. This slide straddles the rod F, and is arranged behind the row of staples as shown. It is operated by means of a coiled spring H, which is attached by one end to a grooved pulley I, and passes down around a second grooved pulley J, and attaches to a cord or chain K, of the feeding slide as shown. The slide by being attached to the spring is rendered self acting and feeds the staples as fast as set into the slots. The tension of the spring, as the number of staples on the rod decreases is adjusted by winding it on the pulley I, which is accomplished by turning said pulley the proper distance and then fastening it at the desired point by means of the ratchet *o*, and pawl *p*.

It will be observed that by having the rod F, which carries the staples, rounded off at *k*, and to bear against the plate *l*, of the guide tube *m*, that the staple can get directly under the punch, and also that it will be impossible for a staple to get past the rod

unless forced down by the punch. It will also be observed that by rounding off the rod at $\frac{1}{2}$, the having of the rod always bear with a yielding force against the plate l , of the tube, is practicable, as the descent of the punch will not be interfered with by the rod, the rounded portion allowing the punch to wedge itself between said plate and the rod in a manner to force the rod laterally out of its path.

The machine thus far described answers for setting the staples into slats only.

K^1, K^1 , are ratchet teeth formed on the under side of the anvil. These teeth are just the same length as the spaces it is desired shall exist between the staples which are driven into the rod which adjusts the slats, or opens and closes the same.

L , is a spring pawl which gears into the ratchet teeth. This pawl is thrown out of gear with the teeth by means of a rod q , and elbow lever r , and is kept in gear by means of a spring t .

M , is a dog for holding the end of the rod while the slats are being connected or hinged to it.

N , is a gage stop for the staples which have been driven into the slats to bear against, while the staples which connect or hinge the slats to the rod are being set into the rod. This stop is adjustable up and down by means of slot u , and set screw v , so that it may be up out of the way when the staples are being set in the slats as shown in black in the drawing and then lowered as shown in red so as to answer as a stop when the staples are being set in the adjusting rod.

The operation of setting the staples into the slats, is as follows: The staples being on the rod as shown, the anvil is adjusted by the ratchet teeth to suit the length of slats which are to be set with staples, the

slats are successively placed in the groove of the anvil and the punch depressed by applying the foot to the treadle.

The operation of connecting or hinging the slats to the rod is as follows: the gage plate N , being lowered the rod is dogged and made to rest upon the ungrooved portions of the anvil, a slat is now placed at right angles to the rod with its broad side resting upon the rod and adjusted till its staple bears against the gage plate N , when the treadle is depressed by the foot and a staple brought down and made to hinge with the staple of the slat. For each successive slat the anvil is drawn toward the operator the distance of one ratchet tooth.

The superiority of this machine lies in its being so extremely simple and yet capable of performing, in a very perfect manner, all the functions performed by others more complicated, and the additional and important function of connecting and hinging the slats to the rods.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The arrangement and combination of the vertically sliding punch D , spring supporting and stop bar F , spring feeding slide G , and grooved sliding bar or anvil B , substantially as and for the purposes set forth.

2. In combination with the above, the ratchet teeth K , of the sliding bar or anvil B dog M , spring pawl L , and adjustable gage plate N , substantially as and for the purposes set forth.

The above specification of my improvement in blind slat staple setters signed by me this 8th day of July 1858.

JAMES WYMAN.

Witnesses:

C. LANDENBERGH,
JEROME B. LANSING.