T. P. Butterfield,

Cutting Shingles.

No. 27,690. Patented Apr. 3, 1860.

Fig 1

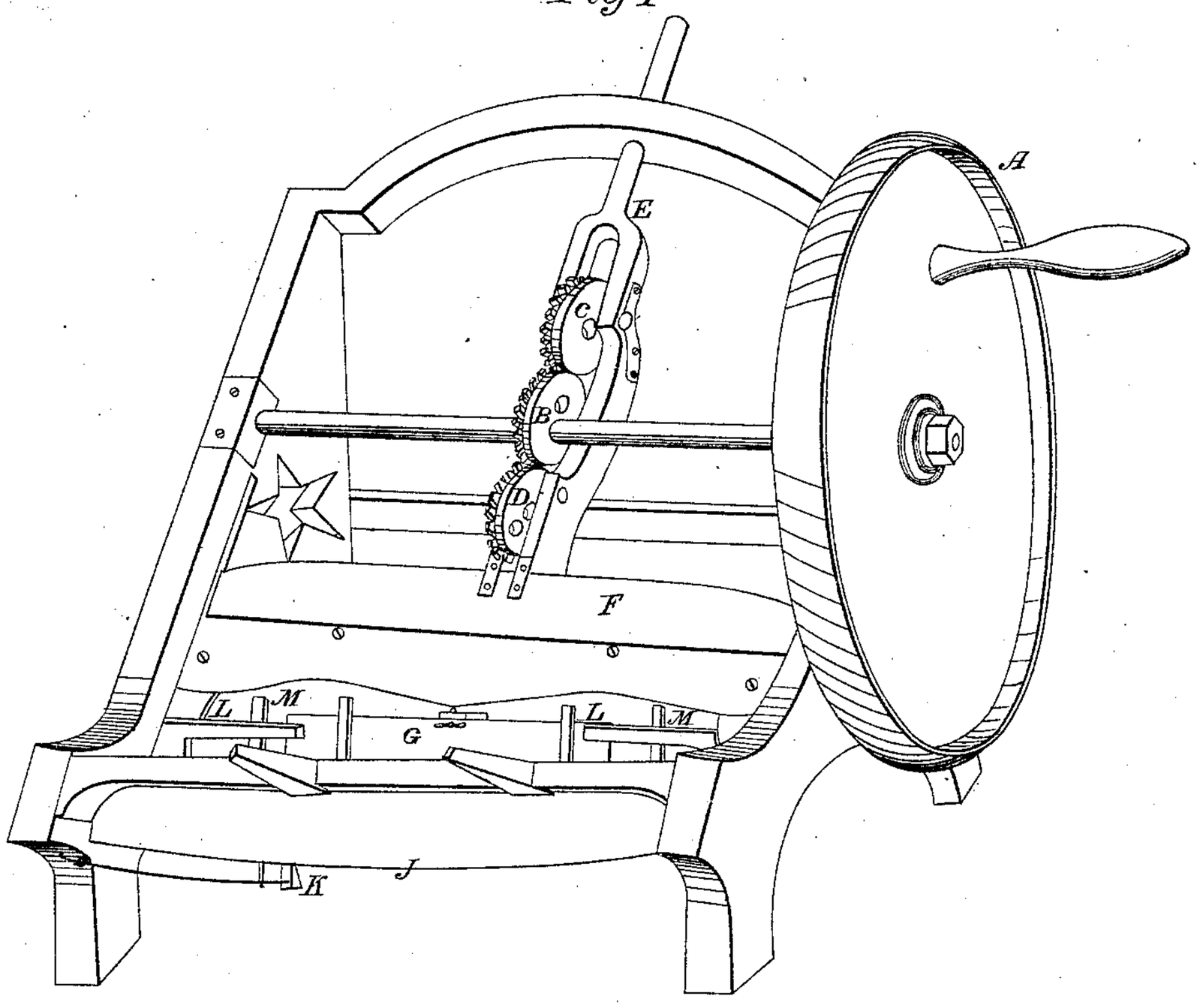
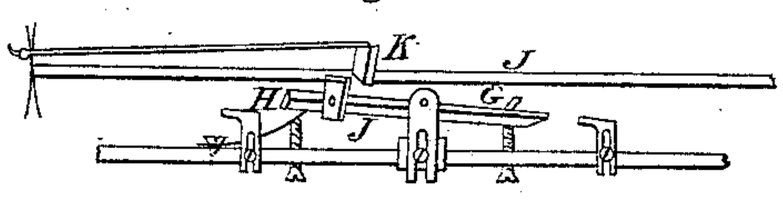


Fig 2



Witnesses:

A. W. Ellsworth

" John H. Redstone

Inventor:

Tyrannus P. Butterfield

UNITED STATES PATENT OFFICE.

TYRANNUS P. BUTTERFIELD, OF INDIANAPOLIS, INDIANA.

DEVICE FOR TILTING THE BOLT IN SHINGLE-MACHINES.

Specification of Letters Patent No. 27,690, dated April 3, 1860.

To all whom it may concern:

Be it known that I, TYRANNUS P. BUTTERFIELD, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Combined Lath and Shingle Machine, of which the following is a full and exact description, reference being had to the accompanying drawings and the letters marked thereon.

Figure 1 is a perspective and Fig. 2 a sectional view.

A, is a balance wheel upon the same shaft with the wheel B, which gears with the wheels C and D. The journals of the wheels C and D and the main shaft of the machine form the axis of their revolutions at a distance from the center of the same equal to one half the stroke required. The effect it will be seen differs from the arrangements of two eccentrics with a concentric intervening in the fact that the wheels need not be more than half as large to produce the same stroke, it being necessary to have the greatest part of the eccentrics always stand in the same relative position to each other, while the axis of the wheels C and D alternately approach and recede from the main shaft or journal of the wheel B, bringing the greatest side of two eccentrics in contact at the same time. The journals of the wheels C and D, being attached to the bar E, to which the knife plate F is also attached gives motion to the same as has been shown.

The rest or vibrating table G is designed for the shingle blocks and is operated by the spring H, and guide or slide plate I, which rests on or is held up against the cross-frame J by the spring H.

The slide plate I is of an oblong shape being attached to the rest or table G, which is held up by the spring H, allows the table G to vibrate as the long and short diameters of the slide or plate I are brought against the frame J. The plate I being revolved by the catch spring or tripper K, the guides L, L are designed to hold a bolt of plank cut of suitable length for lath, which passes between the same and the frame of the machine.

M M are gages to determine the thickness of the lath and serve also as rests for the bolt while the same is not engaged with the knife.

The following is the operation of the machine: The shingle block being placed upon the table G, one end of which rests upon the short diameter of the slide or plate I, forms the butt or thick end of the shingle as the knife cuts it from the block. The spring catch K has an inclined side facing the downward motion of the table, and passing over the plate I, drops behind the same and presenting a square edge to it, and as it is again brought up causes it to revolve bringing the longest diameter in contact with the plate J, thereby causing the thin edge of the shingle to be cut from that end of the block. When lath are designed to be cut the shingle rest is taken off or leveled below the lath rests M, M, and the board allowed to drop upon them as the knife is withdrawn. The rests M, M, and shingle rest G, are attached to the same slide with the knife plate; hence when the knife is brought down the rests have passed from under the lumber and the lath or shingle is dropped from under the knife.

What I claim and desire to secure by Letters Patent is—

The oblong plate I, in combination with the spring catch K, for the purpose of operating the table G, when used in connection with the knife frame, substantially as set forth.

TYRANNUS P. BUTTERFIELD.

Witnesses:

H. W. ELLSWORTH,

JOHN H. REDSTONE.