

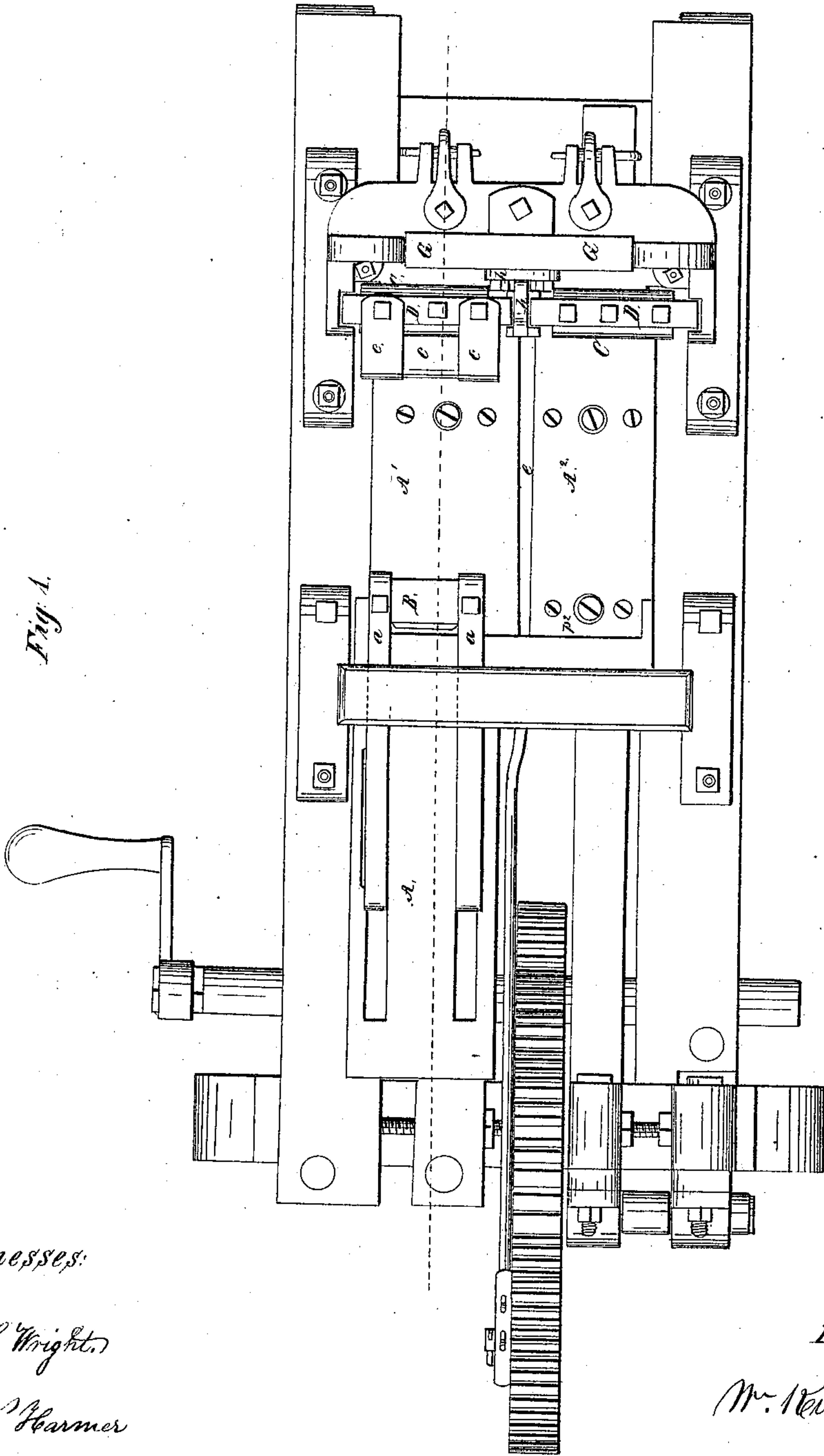
W. Kirkpatrick,

2 Sheets, Sheet 1.

Cutting Shingles.

N<sup>o</sup> 23,846.

Patented May 3, 1859.



Witnesses:

John L. Wright,

B. W. Harmer

Inventor.

W. Kirkpatrick

25 Sheets. Sheet 2.

W. Kirkpatrick,

Cutting Shingles.

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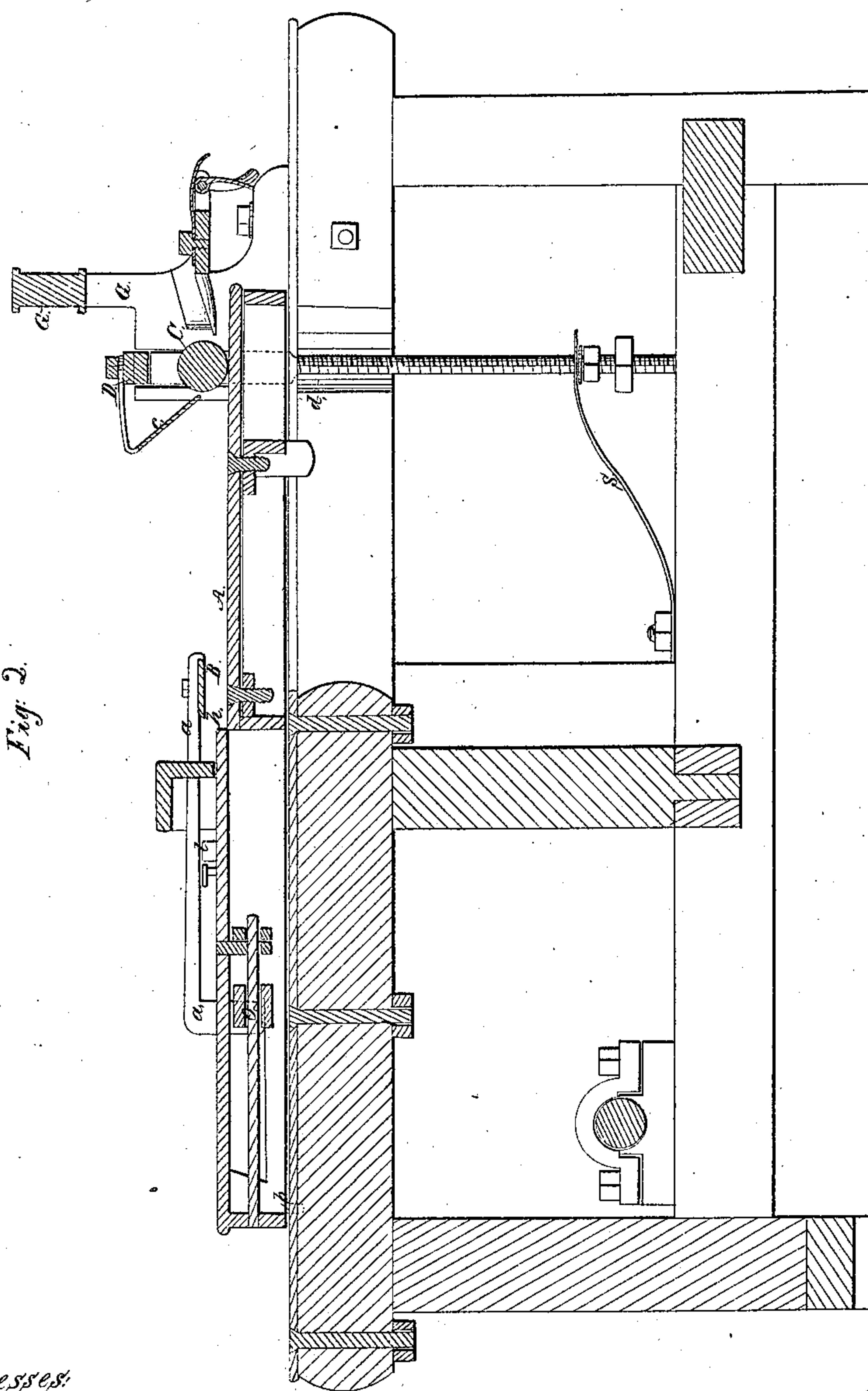


Fig. 2.

Witnesses:

John L. Wright

B. W. Harmer

Inventor

W. Kirkpatrick



# UNITED STATES PATENT OFFICE.

WM. KIRKPATRICK, OF LANCASTER, PENNSYLVANIA.

## SHINGLE-MACHINE.

Specification of Letters Patent No. 23,846, dated May 3, 1859.

*To all whom it may concern:*

Be it known that I, WILLIAM KIRKPATRICK, of the city of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented a new and valuable Improvement in A. V. B. Orr's Shingle-Machine, patented July 8, 1856; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my improvement consists in attaching to Orr's reciprocating plate an additional plate, with a second roller and shaving knife so as to have both sides of the shingle finished after the piece has been split from the bolt, thus securing a perfect finish of both sides of the shingle, which is not the case in Orr's machine, and also in so arranging the ends of the pieces to which the frow, is fastened that it shall be able to accommodate itself to twisty timber without injuring its connections with the plate.

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

Figure 1 of the accompanying drawings represents a perspective view of my improvement. Fig. 2 a transverse section, and Fig. 3 an end view of the frow attachment all the letters in the several figures referring to the same parts.

To a reciprocating plate A, A<sup>1</sup>, Fig. 1 working in slides by means of a tongue b, on its lower surface having two faces A, and A<sup>1</sup>, parallel to each other, with an offset p, between them the face A<sup>1</sup>, being the thickness of the piece required to be split from the bolt, lower than the other; I attach another plate A<sup>2</sup>. This second plate is attached to one side of the first plate with a space as seen at e, between them, as this last plate is for the purpose of giving the piece the necessary taper it only runs one half the length of the first plate and its face is placed at an angle with the plane of its reciprocation equal to the taper necessary in the shingle, as in the second face of Orr's plate. This face is moveable so as to give any desired taper required, it has also an offset as seen at p<sup>2</sup>, to carry the piece placed upon it under the roller and knife. Spanning those two reciprocating plates and attached to the wooden frame of the machine, is a cast iron frame G, G, to this frame is affixed the rollers C, C, knives and dogs or catches. The

rollers C, C, are secured in a wrought iron piece D, D, which slides up and down in grooves in the cast iron frame G, G, one of which grooves for each roller is formed in the center piece h, h, of said frame, one end of the wrought iron piece D, for holding the rollers passes downward, through the wooden frame as seen at d, and is attached to the spring S, by means of which any desirable pressure may be given to the rollers, thus securing the whole in a single frame, adding strength, compactness, and simplicity to the machine and by the peculiar arrangement of the iron frame G, G, in spanning the wooden frame of the machine firmly bracing the whole together.

Attached to the upper part of the piece D, D, for holding the roller on the splitting side of the machine, is the guide piece c, c, this guide piece is so arranged in front of the roller that it always secures the entrance of the piece split from the bolt under the roller however twisty such piece may be. A limited reciprocal rotation is allowed to the ends of the pieces a, a, to which the frow B, is attached by the arrangement seen in Fig. 3. A rod connected with the reciprocating plate and running longitudinally with it on its under side passes through the hole O, of the piece g, g, which moves on said rod the distance the frow is required to slide backward and forward, the ends of this piece g, g, pass through the perpendicular portions of the pieces a, a, below the plate permitting the frow to move as on a pivot perpendicularly, while the movement of the piece g, g, on the rod permits the frow to accommodate itself to the twist of the timber. The thickness of the piece split from the bolt is regulated by means of two set screws l, l, Fig. 1 upon which it rests.

From the foregoing description of my improvement it will be observed that when the reciprocating plate is put in motion the frow accommodating itself to character of the timber, splits off a piece from the bolt during the forward motion of the plate, as in Orr's machine this piece is dropped on the face A<sup>1</sup>, with its end against the offset p, the motion of the plate is now reversed and in its backward movement the piece directed by the guide c, c, c, c, passes under the roller and knife, and as this face of the plate is parallel with the plane of its motion the piece comes out of one thickness with the upper surface perfectly smooth. The



piece is now placed with the smooth side  
down on the added plate A<sup>2</sup>, with its end  
against the offset p<sup>2</sup>, and during the next  
backward movement of the plate is carried  
5 under the second roller and knife and comes  
out finished having the required taper given  
to the other side, by the divergence of the  
face of the plate from the plane of motion.

I wish it to be understood that I make  
10 no claim to any of the devices embraced in  
A. V. B. Orr's patent of July 8th, 1856, as  
originating with me but

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

15 1. I claim the added plate A<sup>2</sup>, constructed

as described and when acting in combina-  
tion with the wrought iron piece D, *d*, and  
spring S, substantially as described.

2. I claim the guide piece *c*, *c*, *c*, *c*, as ar-  
ranged and for the purpose specified. 20

3. I claim the combination of the rod O,  
with the pieces *g*, *g*, and *a*, *a*, by means of  
which the frow is enabled to accommodate  
itself to the winding grain of the timber as  
already specified.

WM. KIRKPATRICK.

Witnesses:

JOHN L. WRIGHT,  
ADRIAN V. B. ORR.