E. Edwards.

Cutting Shingles.

No. 16,911. Patented Mar. 31, 1857.

Fig. 1

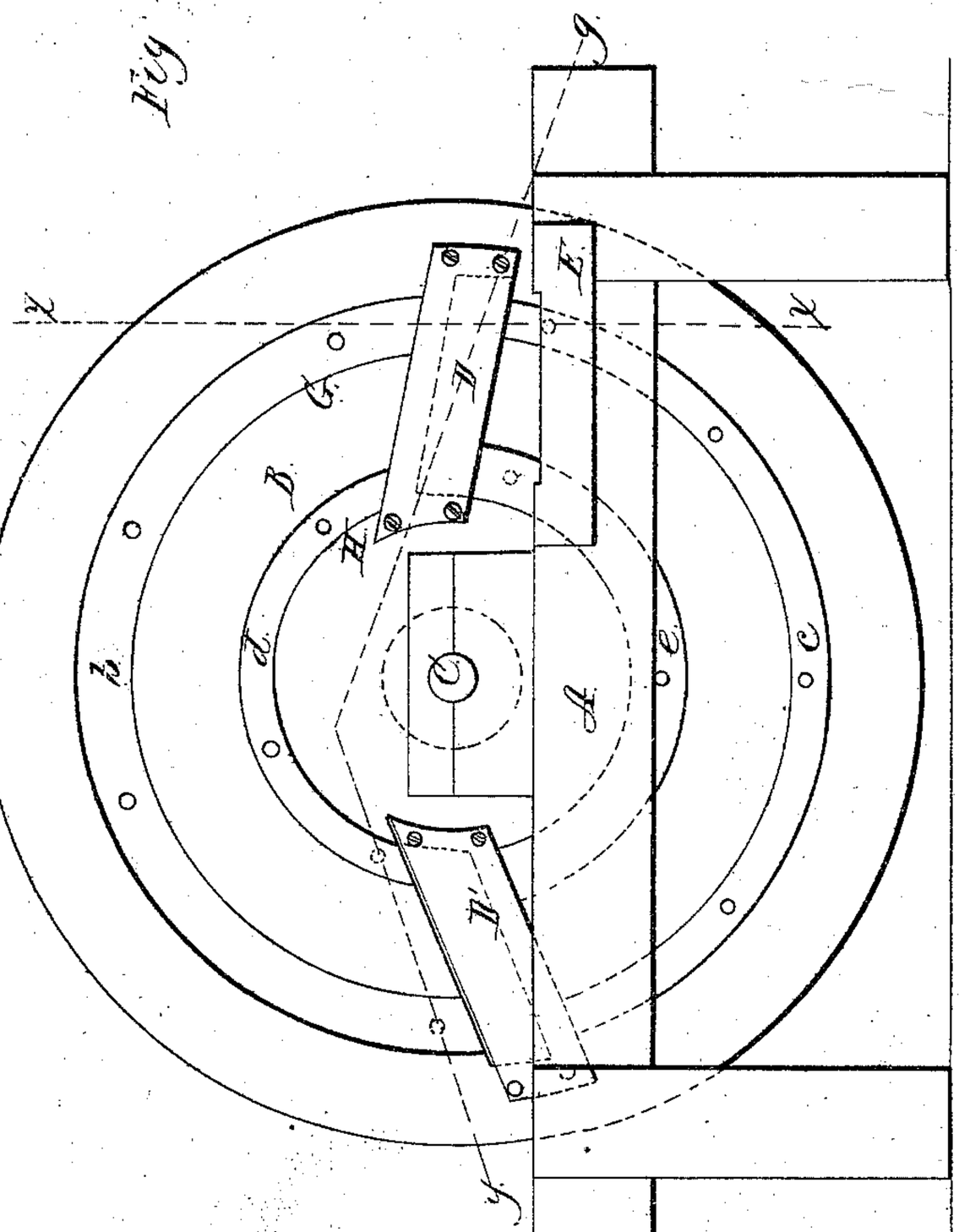

Fig. 2

Fig. 3

UNITED STATES PATENT OFFICE.

EDWIN EDWARDS, OF ONEIDA LAKE, NEW YORK.

ROTARY SHINGLE-MACHINE.

Specification of Letters Patent No. 16,911, dated March 31, 1857.

To all whom it may concern:

Be it known that I, EDWIN EDWARDS, of Oneida Lake, in the county of Madison and State of New York, have invented a new and useful Improvement in Shingle-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improvement. Fig. 2, is a transverse vertical section of the same, (*x*) (*x*) Fig. 1, showing the plane of section. Fig. 3 is a section of the same, (*y*) (*y*) Fig. 1, showing the plane of section.

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

This invention relates to an improvement in that class of machines for cutting shingles in which cutters are attached to or secured in a rotating wheel.

The invention consists in attaching to the face of the wheel two annular and concentric gages, which are made adjustable and so arranged that as the wheel rotates they will cause the bolt to be presented angularly to the cutters, the position of the bolt being changed at every semi-revolution of the wheel so that the shingles will be cut from the bolt in proper taper form; and the butts of the shingles cut from both sides or ends of the bolt, the shingles cut by one cutter having their butts cut from one side of the bolt, and the shingles cut by the other cutter having their butts cut from the opposite side. The cutters acting alternately and the position of the block changed or varied between the cuts.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a frame in which a vertical wheel B is placed.

C represents the shaft or axis of the wheel.

D, D, represent two cutters or knives which are placed in the wheel B. The cutters being fitted over recesses (*a*) in the wheel, said recesses forming the throats or passages through which the shingles pass as they are cut. The cutters D, D, are placed at opposite sides of the shaft C.

E, represents a bed placed on the frame A directly in line with the path of the cutters D, D. The bolt F, from which the shingles are cut, is placed on this bed.

The frame, wheel, and cutters have been previously used and these parts are well known and constitute one of the oldest class of shingle machines. A more minute description, therefore, of the parts above referred to, is not necessary.

On what may be termed the "face" of the wheel B, two annular and concentric metal bands G, H, are secured. These bands serve as gages. Each band is formed of two parts (*b*) (*c*) (*d*) (*e*); the parts (*b*) (*d*), being at one side of the cutters, and the parts (*c*) (*e*), at the opposite sides. The smaller band H is at the inner ends of the cutters, and the band G at the outer ends. The ends of the bands at the cutting edges of the cutters have set screws (*f*) attached by which the ends may be adjusted further in or out from the face of the wheel, see Figs. 2 and 3.

By referring to Fig. 3 it will be seen that the ends of the parts (*b*) (*d*) of the bands adjoining the cutting edge of the cutter D^1, are so adjusted by means of their screws (*f*) that the end of the part (*d*) of the smaller band H, is moved out from the face of the wheel, and the end of the part (*b*) is flush with the face of the wheel. The opposite ends of the parts (*c*) (*e*) of the bands at the cutting edges of the cutter D, are adjusted in reverse positions, for the end of the part (*e*) of the band H is flush with the face of the wheel B, and the end of the part (*c*) of the band G is moved out from the face of the wheel, and near to the cutting edge of the cutter D.

From the above description it will be seen that as the inner end of the bolt F bears against the bands G, H, the inner end of the bolt will be placed angularly with the cutters (see Fig. 3); the bands serving as gages; and it will also be seen that as the inner end of the bolt is kept firmly pressed against said bands or gages the bolt will be shifted by said bands or gages as the wheel rotates, the two cutters acting upon the bolt F alternately and cutting the shingles from the bolt in taper form, the butts and thin ends of the shingles being cut alternately from each side of the bolt.

I am aware that various devices have been employed for shifting the position of the

bolt, at each cut of the knives, so that the shingles can be cut in taper form and the butts cut alternately from each side of the bolt; but the devices hitherto employed have been complicated, expensive to apply to the machine, and liable to get out of repair.

My invention is extremely simple, may be applied to the wheel at a trifling cost, and cannot readily get out of repair.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent is:

The employment or use of the adjustable annular gages G, H, formed each of two parts (*b*) (*c*) (*d*) (*e*), and applied to the wheel B; as shown and described, for the purpose set forth.

EDWIN EDWARDS.

Witnesses:

MARTIN PHILLIPS,

JAMES UNDERHILL.