

(No Model.)

W. J. PERKINS.
SHINGLE.

No. 315,061.

Patented Apr. 7, 1885.

FIG. 2.

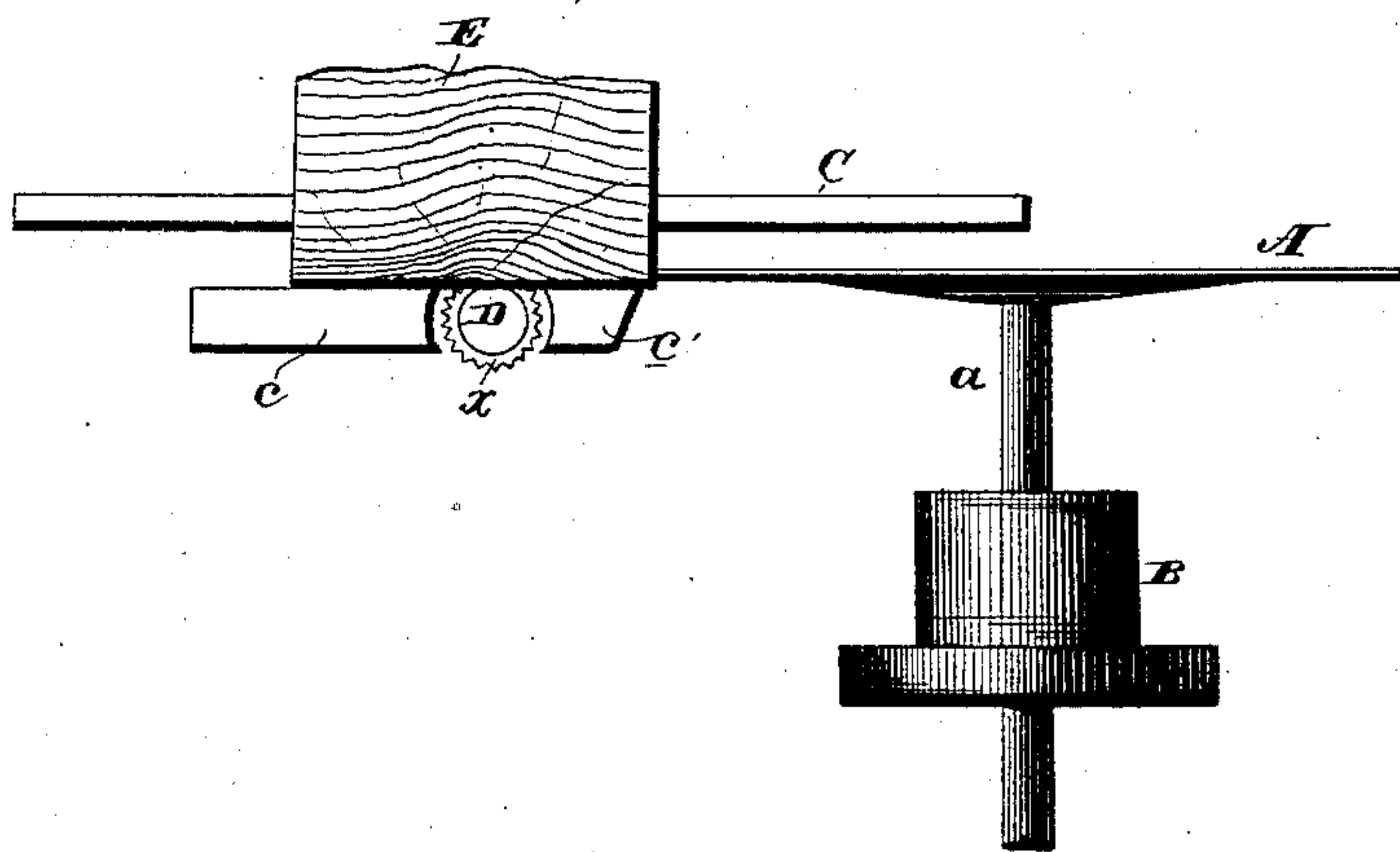


FIG. 1.

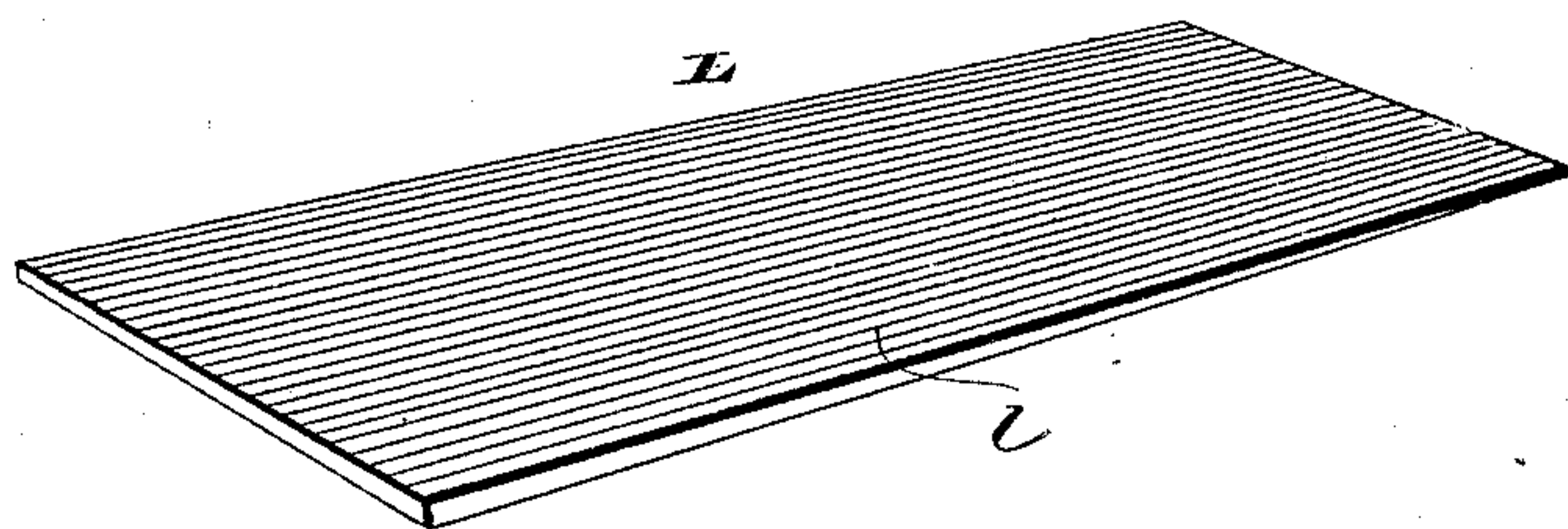
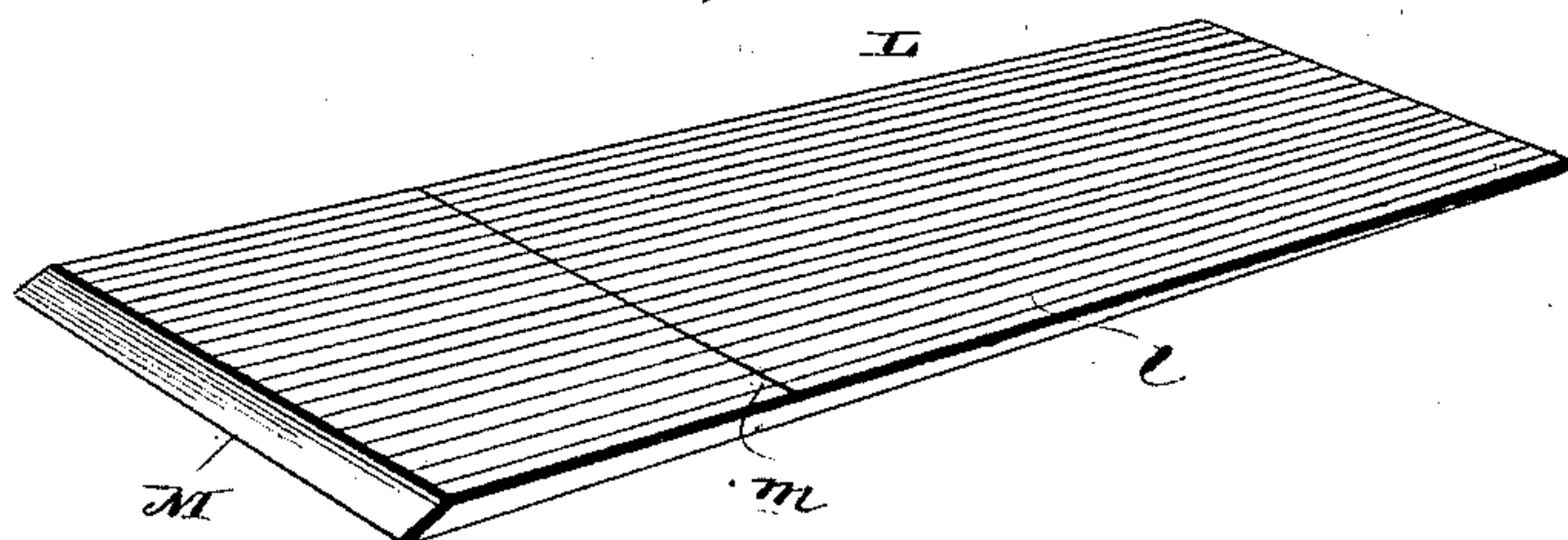


FIG. 3.



WITNESSES

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SHINGLE.

SPECIFICATION forming part of Letters Patent No. 315,061, dated April 7, 1885.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIS J. PERKINS, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Shingles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in shingles.

Hitherto shingles have been sent to market and laid on roofs with a saw-cut surface exposed to the weather, or they have been planed longitudinally or diagonally and the planed surface exposed to the weather. The saw-cut surface is objectionable on account of the circular longitudinal ridges and fibrous protuberances left by the saw-teeth even when the sawyer and filer have done their best, because these projections retain the moisture, causing rapid decay. Again, the surface of a shingle planed longitudinally will have transverse feed-marks or slight corrugations, and, although preferable to a saw-cut surface, has a tendency to lead the water to the right and left and cause it to enter the interstices between the edges of the shingles, thereby producing decay; and, furthermore, when the corrugations run transversely, the circulation of air between the shingles is stopped, the upper shingle fitting snugly on the ridges; hence the moisture is not only led between the shingles, but the drying of the same is hindered by the stoppage of circulation.

A shingle planed diagonally will have diagonal feed-marks or slight corrugations formed on its surface, which will have a tendency to lead the water into the crevices between the shingles—a greater tendency even than those which have transverse feed-marks, and is subject to the same objections.

The object of my present invention is to provide a shingle which shall be free from the above objections, and which can be furnished at a reduced rate, a further object being to provide shingles of equal thickness and length, and having beveled, curved, or otherwise marked butts for ornamentation or to assist in laying.

With these ends in view my invention con-

sists in a shingle planed transversely, and hence having longitudinal feed-marks on its surface.

My invention further consists in a shingle planed transversely during the operation of sawing.

My invention further consists in a shingle planed transversely to a definite thickness and length during the operation of sawing.

My invention further consists in a shingle planed transversely to a definite thickness and length, and provided with a beveled, curved, or course-marked butt during the operation of sawing.

In the accompanying drawings, Figure 1 is a view of my improved shingle, showing feed-marks running longitudinally on its face. Fig. 2 is a vertical longitudinal section of the essential parts of one form of a machine which may be employed to manufacture my improved shingle; and Fig. 3 represents one of my improved shingles having a beveled butt and course-mark formed thereon.

A represents a saw; *a*, the arbor; B, the driving-pulley; C, the ways on which the shingle-bolt carriage runs; *c*, the tilt-table; *c'*, an auxiliary tilt-table section; D, the rotary cutter or planer; E, the shingle-bolt passing over the planer. The section *c'* of the tilt-table is set the thickness of the planer cut above the section *c*, and thereby forms a support for the bolt as it moves from the planer to the saw; or *c'* may be dispensed with, if not needed. The lower surface of the bolt is planed as it passes over the rotary cutter D, and is sawed from the bolt in its forward progress, thereby accomplishing the work of two machines in the time required for the work of one; and, further, the width of a shingle being much less than its length, the distance the shingle is required to travel when presented transversely to the planer is much less than when presented longitudinally, and much time thereby saved.

The cutter or planer D may have knives with projecting ends to form a bevel on the butt; or a dent or projection may be formed in the knife at the point where the course-line should run, which will form a ridge or depression at the corresponding position on the shingle and assist in laying the same; or the knives may be shaped in other ways to form curves or bevels on the butts.

I make, however, no claim in my present application to the machine for manufacturing my improved shingle, the same being reserved as the subject-matter of a future application.

5 Referring to the shingle as represented in Figs. 1 and 3, L represents the body of the shingle, and l the feed-marks or slight corrugations formed thereon by the planer. These corrugations, running lengthwise of the shingle, form natural channels, which assist the
10 water to run off, while they prevent any tendency the water may have to travel transversely. They also form air-spaces between a shingle and the shingle overlapping it, which admits
15 a circulation of air from the outside. A shingle planed transversely can be planed smoother than when planed longitudinally, the variation in the grain being less.

In Fig. 3 the bevel-butt M forms a neat finish, and the course-mark m a great assistance in laying them.

It is found almost impossible to saw the bolts of exactly the same length, on account of the difficulty in handling a heavy log. Now,
25 when the shingles are sawed from a longer block they are thicker at the butt than when sawed from a shorter bolt; but by introducing saws or projecting cutters x on the rotary planer at the length of a shingle apart the
30 shingles may be reduced to the same length and planed to the same thickness at the same time.

I am aware that shingles have been manufactured having longitudinal grooves or ridges
35 formed on their surface for the express purpose of forming water-gutters; but such grooves have been deep and have afforded chambers beneath the overlapping shingle in

which the snow or ice would collect, and the roof become thereby badly injured, and such
40 shingles have either not been planed or have the objectionable transverse feed-marks between the grooves. I make no claim, broadly, in my invention to a shingle having longitudinal grooves on its upper surface, but wish to
45 be understood as limiting myself to those very slight depressions formed in the course of planing, the shingle manufactured in the manner described being less expensive and more durable than those heretofore constructed. 50

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

1. As a new article of manufacture, a planed shingle with planer feed-marks longitudinally
55 of same, substantially as set forth.

2. As a new article of manufacture, a shingle provided with longitudinal planer feed-marks and a coursing-line, substantially as set forth. 60

3. As a new article of manufacture, a shingle provided with longitudinal planer feed-marks and an ornamented or trimmed butt, either with or without a coursing-line thereon, substantially as set forth. 65

4. As a new article of manufacture, shingles provided with longitudinal planer feed-marks, and having uniform lengths and thicknesses, substantially as set forth.

In testimony whereof I have signed this
70 specification in the presence of two subscribing witnesses.

WILLIS J. PERKINS.

Witnesses:

ARTHUR S. DENISON,
FRED W. STEVENS.