

(No Model.)

E. HUBER.

TIRE FOR TRACTION ENGINES.

No. 354,702.

Patented Dec. 21, 1886.

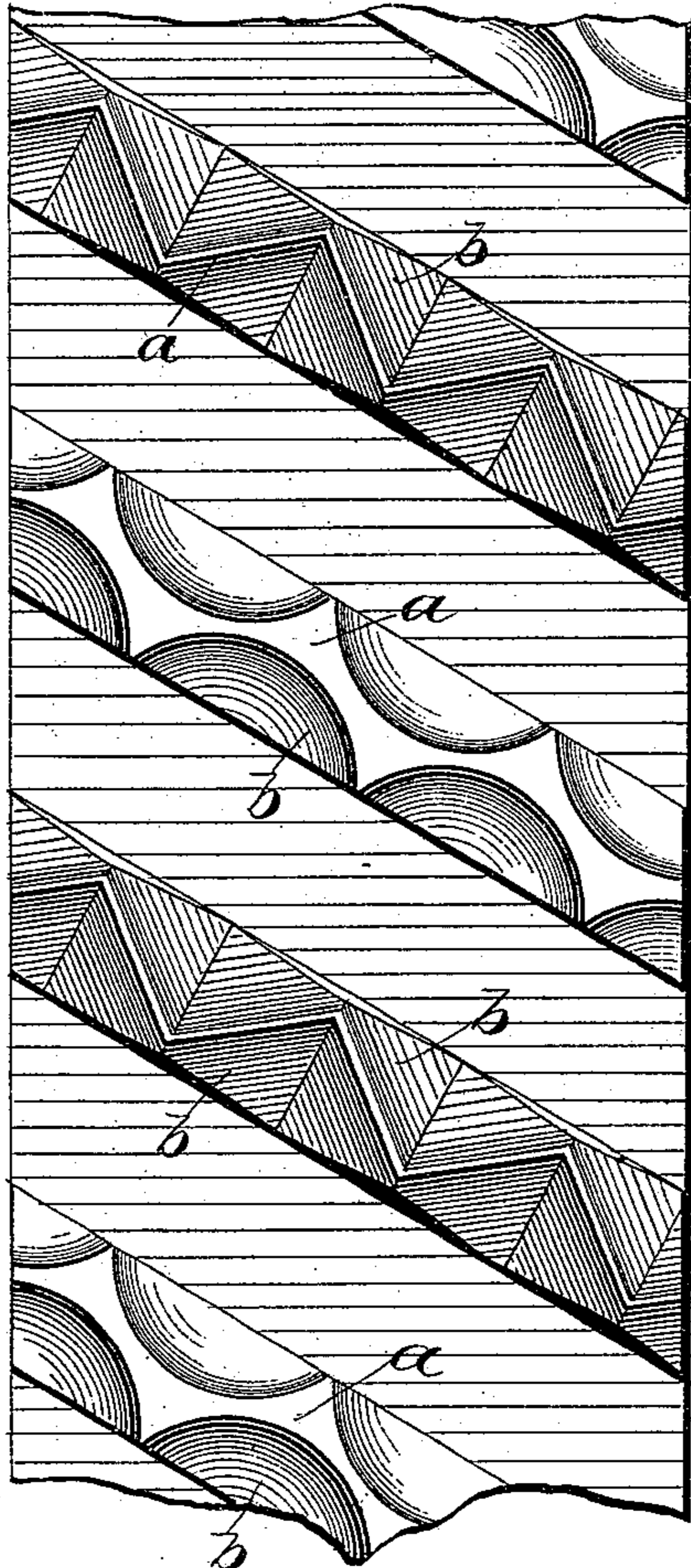
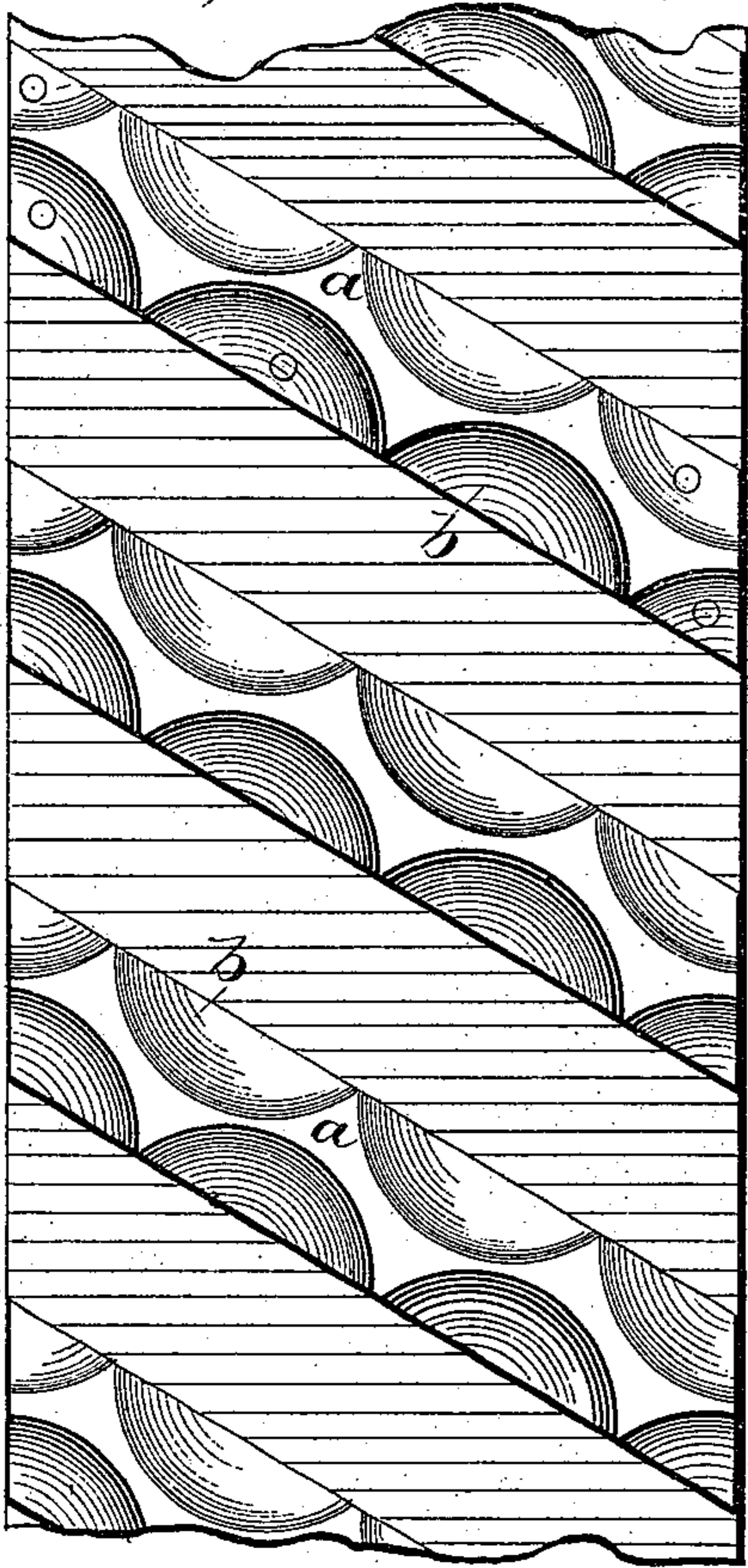
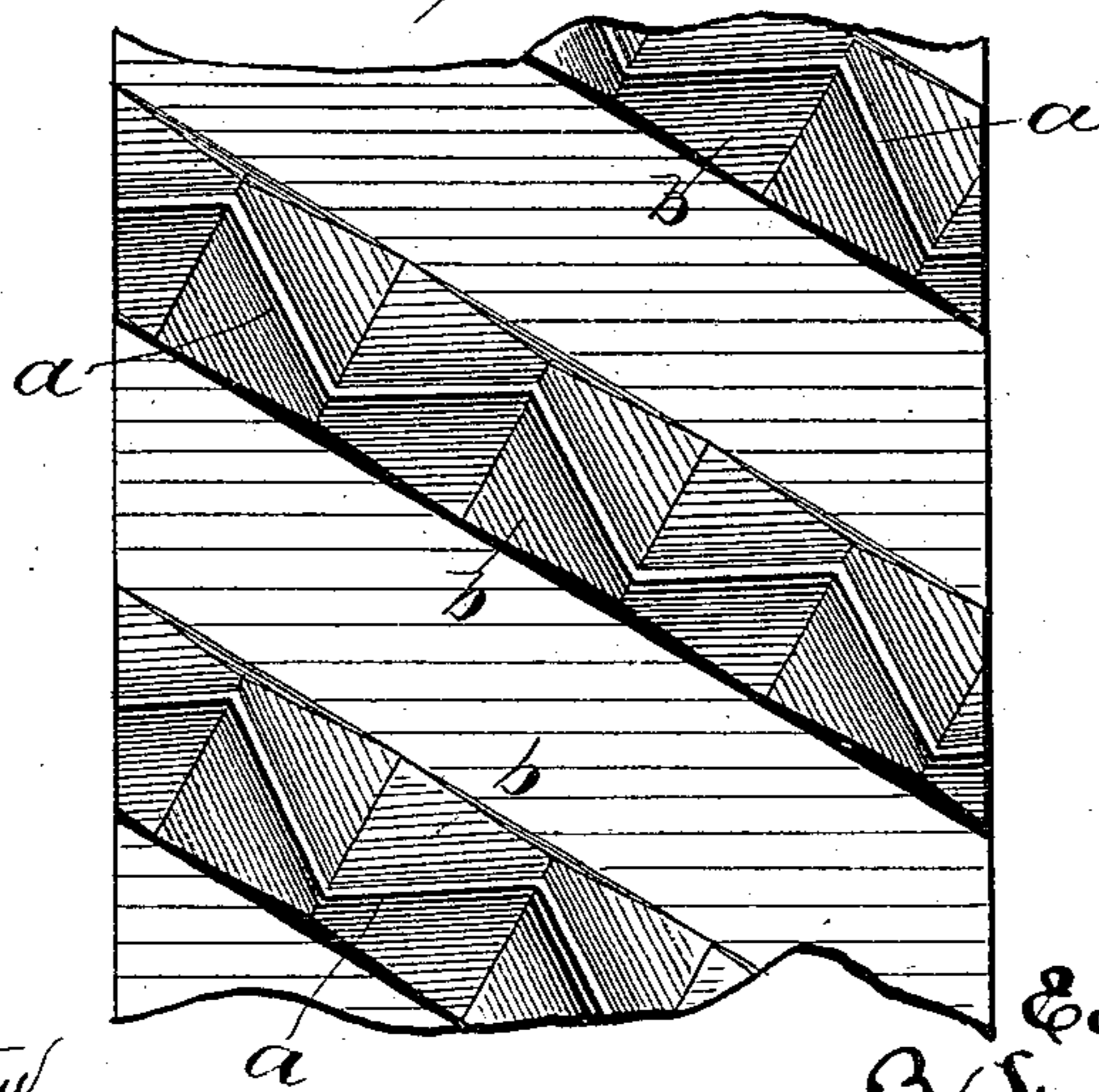


Fig. 2.



WITNESSES  
*E. A. Nottingham*  
*J. B. Jones*

INVENTOR  
*Edward Huber.*  
*B. J. Suggitt & Suggitt.*  
Attorney

# UNITED STATES PATENT OFFICE.

EDWARD HUBER, OF MARION, OHIO.

## TIRE FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 354,702, dated December 21, 1886.

Application filed October 7, 1886. Serial No. 215,589. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD HUBER, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful

5 Improvements in Tires for Traction or Portable Engines; 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  
10 use the same.

This invention relates to tires for traction of portable engines, and more particularly to the form of construction given to the cleats or ledges formed on the face of the tire to prevent slipping of the driving-wheels of these  
15 engines when in action.

With these ends in view my invention consists in certain features of form and construction of the ledges on the face of the driving-  
20 wheels of traction or portable engines, as will be hereinafter set forth in the specification, and pointed out in the claim.

In the drawings, Figure 1 is a view in elevation of the face of a driving-wheel tire, showing one form of the parallel ribs or diagonal ledges. Fig. 2 is an elevation of the wheel-face, showing a modification of the form of the projecting ledges. Fig. 3 represents transverse ledges formed on the tire-face, that  
30 are alternately scalloped and serrated on their parallel edges.

It is well known that in traction or portable road-engines one of the main impediments to progressive movement is due to the slipping of the driving-wheels or revolving of  
35 same in a stationary position if the nature of the soil over which they are to travel is soft and yielding. To overcome this difficulty the expedient of furnishing radial ribs that project from the face of the tire has been tried.

These ribs have been given a transverse position in regard to the edges of the tire, and in a preferred form these cleats or ledges have been made diagonal to said edges. It should  
45 be stated, however, that these projecting cleats or ledges have always been made with parallel edges. In traveling over soft loam or yielding clay ground or a muddy road-bed, driving-wheels provided with ribs or ledges of  
50 the form last described are defective in oper-

ation, no provision being made for locking the yielding soil and preventing it from spreading laterally, and thus allowing the wheel to slip.

In my improved form of tire for a driving-wheel, *a* represents the parallel cleats or ledges, which are placed diagonally across the face of the tire, and are so spaced that a proper equal distance intervenes between them. The diagonal edges of these ledges are scalloped, as  
55 at *b*, at regular intervals to produce a coarse curved serration on opposite sides of each ledge. It is preferable that these curved indentations should be alternate in position on the opposite edges of each ledge. This peculiar formation of the ledges or ribs will produce a series of angular lateral projections on each diagonal edge of the cleats, they being  
60 alternate in position on the opposite edges of each cleat. In use the scallops on the edges of these projecting ledges form impediments to the lateral slip of the soil beneath them, and their tendency is to give a more secure hold of the tire on yielding earth.

In Fig. 2 a modified form of the device is shown, in which the notches *b* in the edges of the cleats are angular in form instead of curved, and produce serrated edges on the same. A plan view of the ledge thus made shows an angular serpentine or zigzag rib or  
70 cleat. Fig. 3 is another modification of the device, in which the cleats or ledges are alternately scalloped and serrated or made zigzag on their edges. Instead of arranging the cleats diagonally across the face of the tire, they can be arranged at right angles to edges  
85 of the tire. In use these latter-mentioned forms of the ledges or ribs on the face of the tire give the same retentive hold upon yielding loam soil as the first-described plan of construction.

These improved cleats can be constructed integral with the tire at the time of rolling the blank, or be made separate and be secured in place upon the plain surface of the tire by any  
95 suitable means.

It is evident that the exact forms of construction of the edges of the cleats may be slightly varied without a departure from the spirit and scope of my invention; hence I do

not restrict myself to the precise form and arrangement of parts shown and described; but,

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

A tire for traction or portable engines, having a series of parallel transverse or diagonal cleats secured thereon, the said cleats having their opposite edges scalloped, serrated, or otherwise indented, the said scallops, serra-

tions, or indentations being alternate in position on the opposite edges of each cleat, substantially as set forth.

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

EDWARD HUBER.

Witnesses:

S. P. KEENER,  
J. E. DAVIDS.