U. Haskin.
Spiral-Gearing.

N° 75544 Patented Mar. 17, 1868

Fig. 1.

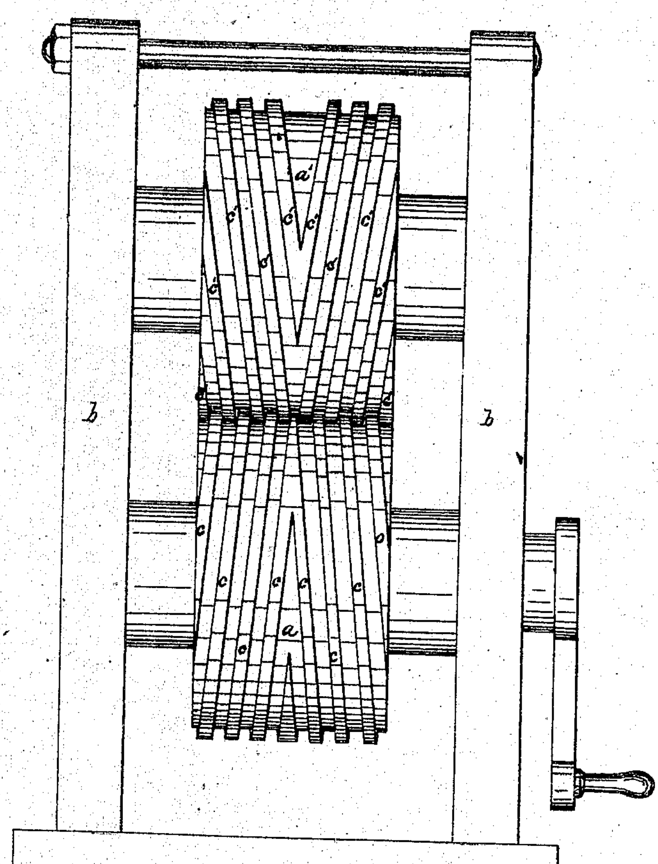
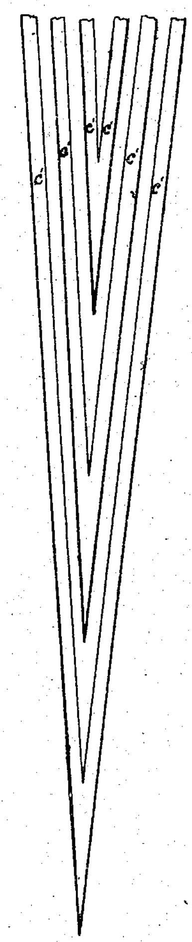


Fig. 2.



Witnesses:
W. D. Lewis
C. B. Cushing

Inventor:
Uri Haskin Jr.
by Bakewell & Christy
his Attys.

United States Patent Office.

URI HASKIN, JR., OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 75,544, *dated March* 17, 1868.

IMPROVEMENT IN SPIRAL GEARING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, URI HASKIN, Jr., of the city of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Spiral Gearing; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a front elevation of a pair of gear-wheels geared together with my improved gear-teeth, and

Figure 2 shows in plan view the face of a portion of one of the gear-wheels.

The nature of my invention consists in the construction of gear-wheels with a double arrangement of spiral gearing on the periphery of each wheel, in which each pair of teeth diverges from the same point, at or near the middle of the periphery of the wheel, and, while diverging, runs spirally around the wheel.

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

a a' are two gear-wheels, running on journals, in any convenient housing or frame, *b*. From, at, or near the centre of each wheel, and in a line formed by the intersection of a plane at right angles to the axis thereof, I cause the gear-teeth *c c c' c'* to diverge from each other at a very acute angle, and run spirally around their respective wheels till they each come to the outer edge of the wheel, or till they give the breadth of gearing required. These teeth and the order of their arrangement are shown in fig. 2. They may be of any required size or shape of face. Of course they should be so arranged on the two wheels *a a'* as readily to play into each other; that is to say, the points where they begin to diverge must be in a common plane; and on the two wheels *a a'* the spiral teeth should run in opposite directions, and also the distances between the different teeth on the same wheel should be uniform.

By the use of such teeth as those described, I wholly avoid the loss usually experienced from the breaking of teeth, as well as the jarring and unevenness of motion frequently encountered in gearing of the ordinary construction. A greater or less number of teeth, according to the angle which the teeth make, with a plane at right angles to the axis of the wheel, will always be in gear, so as to give an even and uniform motion, which it is always desirable to have, and often difficult to obtain.

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

Spiral-toothed gearing, consisting of teeth which run around the periphery of the gear-wheel, and meet in an angle on a line midway from either edge of the wheel, constructed and arranged substantially as hereinbefore described.

In testimony whereof, I, the said URI HASKIN, Jr., have hereunto set my hand.

URI HASKIN, JR.

Witnesses:

A. S. NICHOLSON,

G. H. CHRISTY.