

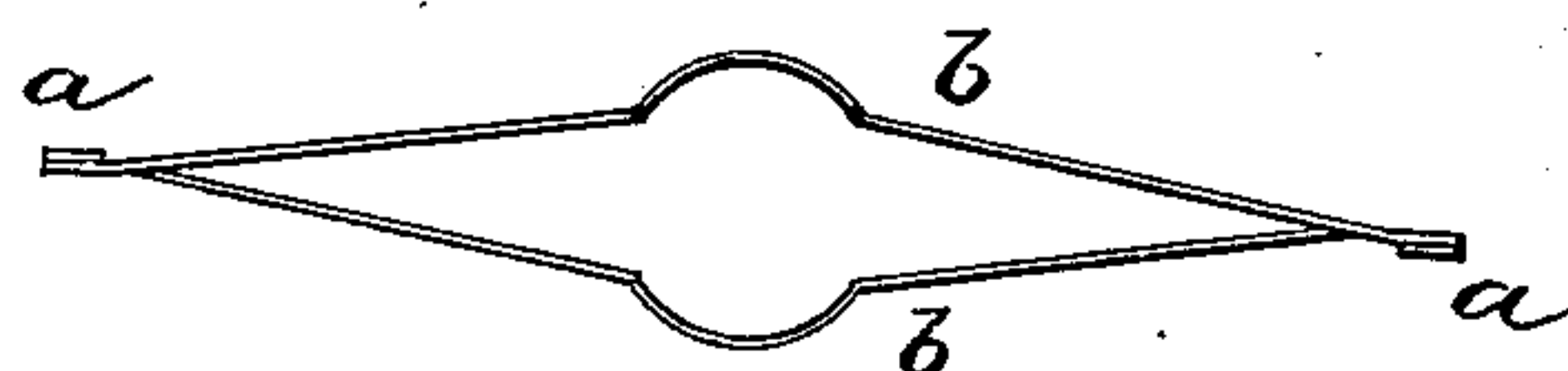
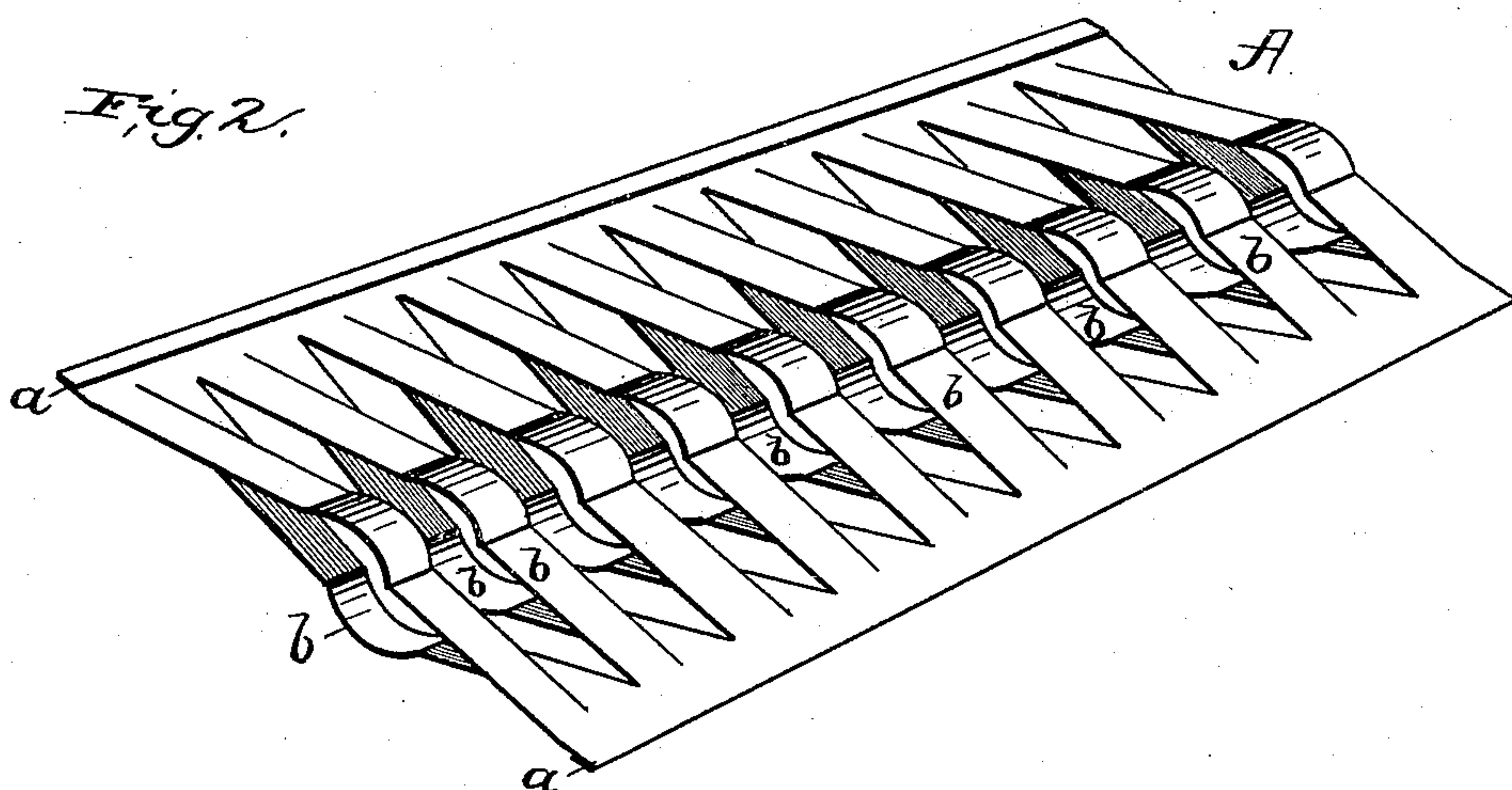
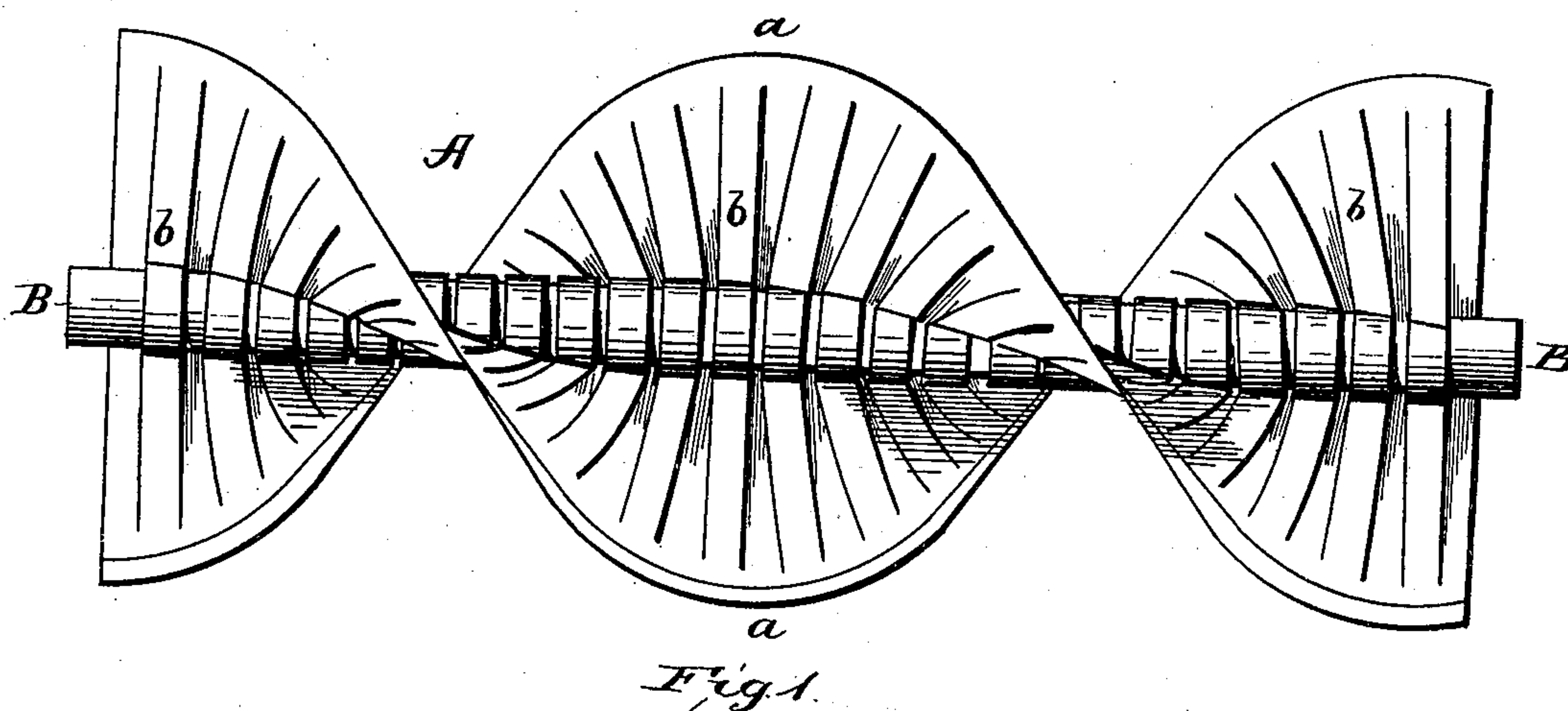
(No Model.)

W. C. & N. C. MARR.

SPIRAL CONVEYER.

No. 323,944.

Patented Aug. 11, 1885.



Witnesses:
My. Roeburn
Herman B. F. Heath

Inventors
William C. Marr
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UNITED STATES PATENT OFFICE.

WILLIAM C. MARR AND NAHUM C. MARR, OF ONAWA, IOWA.

SPIRAL CONVEYER.

SPECIFICATION forming part of Letters Patent No. 323,944, dated August 11, 1885.

Application filed June 18, 1885. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM C. MARR and NAHUM C. MARR, citizens of the United States of America, residing at Onawa, in the
5 county of Monona and State of Iowa, have invented certain new and useful Improvements in Spiral Conveyers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of our invention is the construction of a cheap strong conveyer having superior working capacities; and it consists of a spiral conveyer constructed of a sheet of metal or other suitable material bound at the edges
15 and slitted into strips of the required width, and provided with a central longitudinal shaft inserted between the strips, which are sprung apart alternately in opposite directions to admit the shaft. The slitted plate is then twisted
20 to the right or left, as required, forming a spiral conveyer, as hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of our improved conveyer. Fig. 2 is a perspective of the slitted plate
25 without the shaft and before the plate is twisted. Fig. 3 is an end view of the plate.

A designates a sheet of metal or other suitable material, preferably steel, unless for light work, where economy is an object, in
30 which case it may be made of tin, paper, or other cheap material. The edges *a a* of the plate are bound by a wire soldered or brazed on the plate, or by rolling heads upon the edges, or by simply turning the edges, as shown in
35 the drawings. The plate is then slitted be-

tween and at right angles to the edges into strips *b* of such width as may be necessary to give the required angle or inclination to the flights of the conveyer.

A conveyer having its flights set at an acute
40 angle requires narrower strips than one having its flights set at obtuse angles. The angle of the flights may be made more or less acute also by trimming more or less from the edges of the strips. Each alternate strip is then
45 sprung outward, and the shaft B is inserted between these alternate strips, and the plate is then twisted to the right or left, as required, as shown in Fig. 1, in which position the central portion of the alternate edges are brought
50 together, and are soldered or brazed together and to the shaft, forming thus a solid strong conveyer.

What we claim as new, and desire to secure by Letters Patent, is—

55 A conveyer consisting of a plate, A, slitted into strips *b* of any required width, sprung apart in opposite directions, in combination with the shaft B, inserted between the strips of the plate, which is twisted and fastened
60 upon the shaft forming continuous double flights, substantially as and for the purpose described.

In testimony whereof we have affixed our signatures in presence of two witnesses.

WM. C. MARR.

NAHUM C. MARR.

Witnesses:

A. W. BUFFINGTON,

A. E. WHEELER.