

No. 656,296.

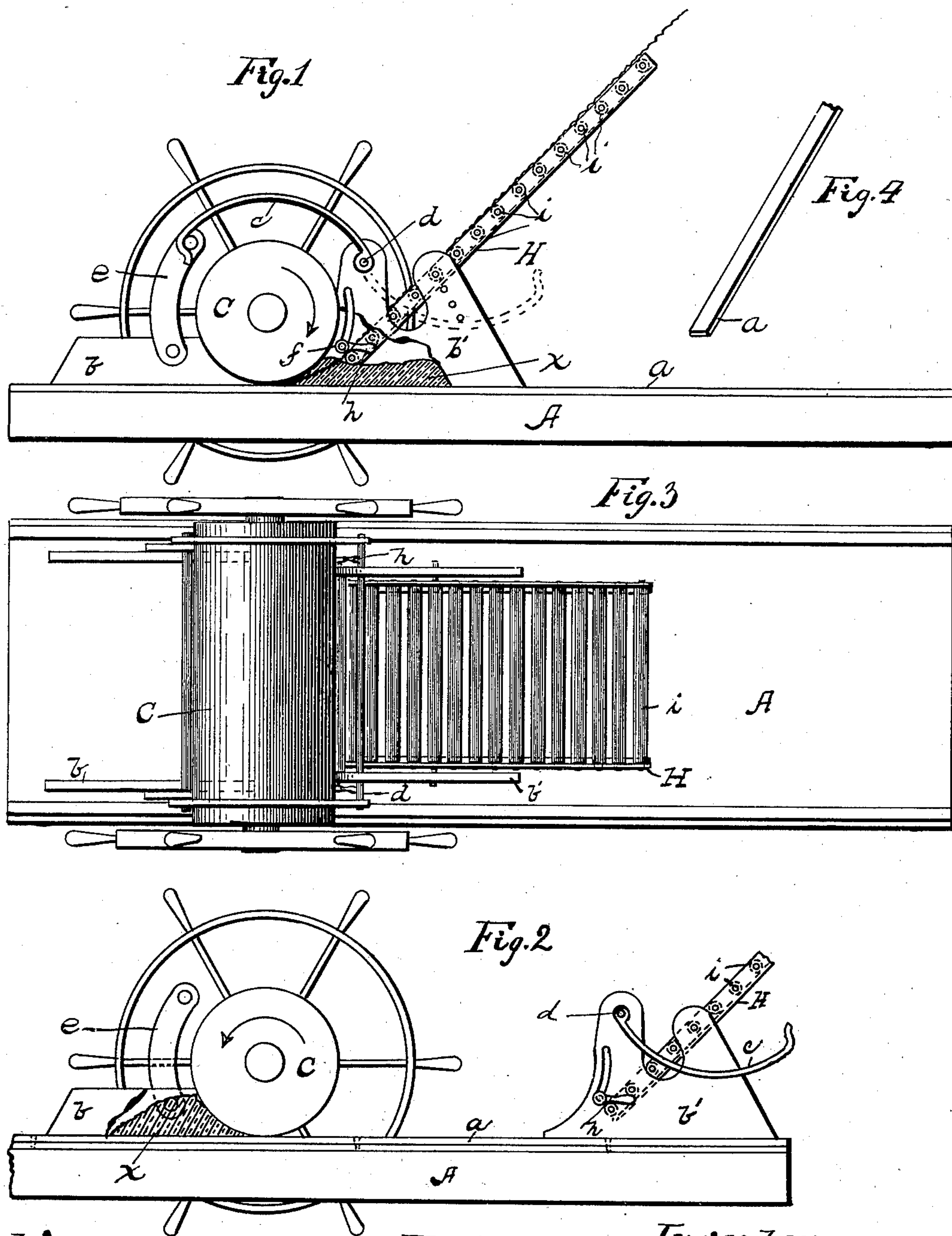
Patented Aug. 21, 1900.

J. LOCKE.

APPARATUS FOR PRODUCING WIRE GLASS.

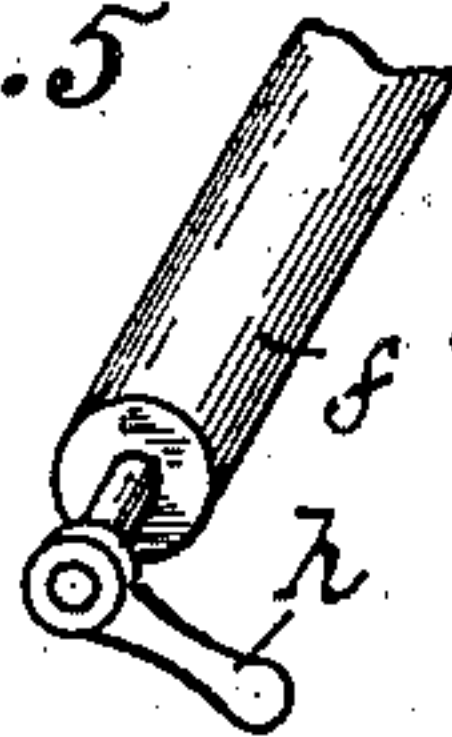
(Application filed Nov. 27, 1899. Renewed July 18, 1900.)

(No Model.)



Witnesses:
Richard D. Harrison,
C. Williams.

Fig. 5



Inventor
Joseph Locke
By *John H. Roney*
his Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH LOCKE, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE DAVIS GLASS COMPANY, OF SAME PLACE.

APPARATUS FOR PRODUCING WIRE-GLASS.

SPECIFICATION forming part of Letters Patent No. 656,296, dated August 21, 1900.

Application filed November 27, 1899. Renewed July 16, 1900. Serial No. 23,823. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LOCKE, a citizen of the United States, residing at Pittsburg, in the county of Allegheny, State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Apparatus for Producing Wire-Glass, of which the following is a specification.

My invention relates to improvements in devices for rolling sheets or plates of glass having a wire web inserted and commonly called "wire-glass."

The object of my invention is to produce a device of this character simple in construction and efficient in operation; and to this end my invention consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed, reference being had to the accompanying drawings, which form a part of this specification, and in which like reference characters indicate corresponding parts wherever they occur throughout the several views.

In the accompanying drawings, Figure 1 indicates a side elevation of my improved apparatus, a portion of the side of the guide being broken away to show molten glass in front thereof. Fig. 2 is a side elevation of the same, showing the position of the roll after the completion of the first layer of glass and near the completion of the second layer. Fig. 3 is a plan view of the same. Fig. 4 is a perspective view of part of the removable bar. Fig. 5 is a perspective view of the guide-roller.

Referring to said drawings, A is a table on which the molten metal x is adapted to be rolled into layers by the action of the roll C. The said roll is supported on narrow bars or ways $a a$, arranged or secured on said table, along both sides of the same, and corresponding in the first instance with required thickness of the first or lower layer. Upon completion of the first layer additional and similar bars are secured upon the first bars corresponding in thickness with the second layer.

b and b' are guides arranged, respectively, on opposite sides of the roll C for the purpose of regulating the width of the layers forming the sheet or plate. The said guides are connected by means of the link c , one end of which is pivotally and permanently at-

tached to the rod d , which is secured in the upper sides of the guide b' , the opposite end of said link being detachably connected to the upper end of the link e , the lower end of which is secured to the guide b on both sides thereof.

f is a guide or feed roll arranged in bearings formed in the lower inner side of the guide b' , the said bearing being formed in a slot, so as to permit the said feed-roll to be lowered and elevated by means of the lever or handle h , which is secured on the ends of the spindle of said roll for the purpose of permitting the lower end of the chute H being elevated and lowered from and toward the mass of metal on the casting-table, the said chute H being pivotally secured, near the lower end thereof, in the guide b' to admit of this, rods or pins inserted in or through the outer sides of said guide b' being used to support the chute H at varying angles, as shown in Fig. 1. The said chute H consists of a frame or sides and a bottom comprising a series of small rollers $i i$, journaled in said sides for the purpose of feeding the wire web beneath the compressing-roll and into the layer first rolled.

The operation of my apparatus is as follows, to wit: The apparatus being arranged as shown in Fig. 1, the workman or workmen by grasping the hand-wheels on both sides of the spindle of the compressing-roll and turning the same in the proper direction causes the same to travel in the direction indicated by the arrow, compressing and rolling the mass of molten metal immediately in front of the said roll into a sheet or plate. A wire web cut to required length is fed downwardly through the chute over the rollers in the bottom thereof and between the lower of said rollers and the guide-roll arranged at the bottom of the guide, which is arranged before the roll to regulate the width of the layer of glass being acted upon. The wire web is guided into the plastic mass by the friction of said roll and compressed or inserted therein by the same. Immediately the roll has traversed the length of the table a layer of glass having the wire web inserted is formed, a second mass of molten glass is at once dumped upon said first layer, and the links

which connect the guides are detached, and the operation of rolling the second mass of metal into a layer is accomplished in a direction reversely to that employed in forming the first layer, which operation insures the welding of highly-heated metal upon the coolest and first-formed portion of the first layer at the last moment of the operation, raising the temperature thereof and producing an equable temperature throughout the completed sheet or plate.

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

1. In an apparatus for producing wire-glass, the combination of a table, a compressing-roll, a small feed-roll arranged in close proximity to said compressing-roll, and guides arranged on opposite sides of said compressing-roll, substantially as set forth.

2. In an apparatus for producing wire-glass, the combination of a table, a compressing-roll, a small feed-roll arranged in close proximity to said compressing-roll, and guides arranged on opposite sides of said compressing-roll, the said guides being detachably connected, substantially as set forth.

3. In an apparatus for producing wire-glass, the combination of a table, a compressing-roll, a small roll arranged in close proximity to said compressing-roll and adapted to feed

and guide a web of wire beneath said compressing-roll, a chute adapted to support said web of wire, and guides arranged on opposite sides of said compressing-roll, substantially as set forth.

4. In an apparatus for producing wire-glass, the combination of a table, a compressing-roll, a small roll arranged in close proximity to said compressing-roll, a chute adapted to support a web of wire, and guides arranged on opposite sides of said compressing-roll the said guides being detachably connected, substantially as set forth.

5. In an apparatus for producing sheets of glass having a metallic web inserted, the combination of a table, a compressing-roll, means to move said roll, a small roll arranged in close proximity to said compressing-roll and adapted to feed and guide a web of wire beneath said compressing-roll, and guides arranged on opposite sides of said compressing-roll and detachably connected, substantially as set forth.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

JOSEPH LOCKE.

In presence of—

CLARENCE A. WILLIAMS,
JNO. H. RONEY.