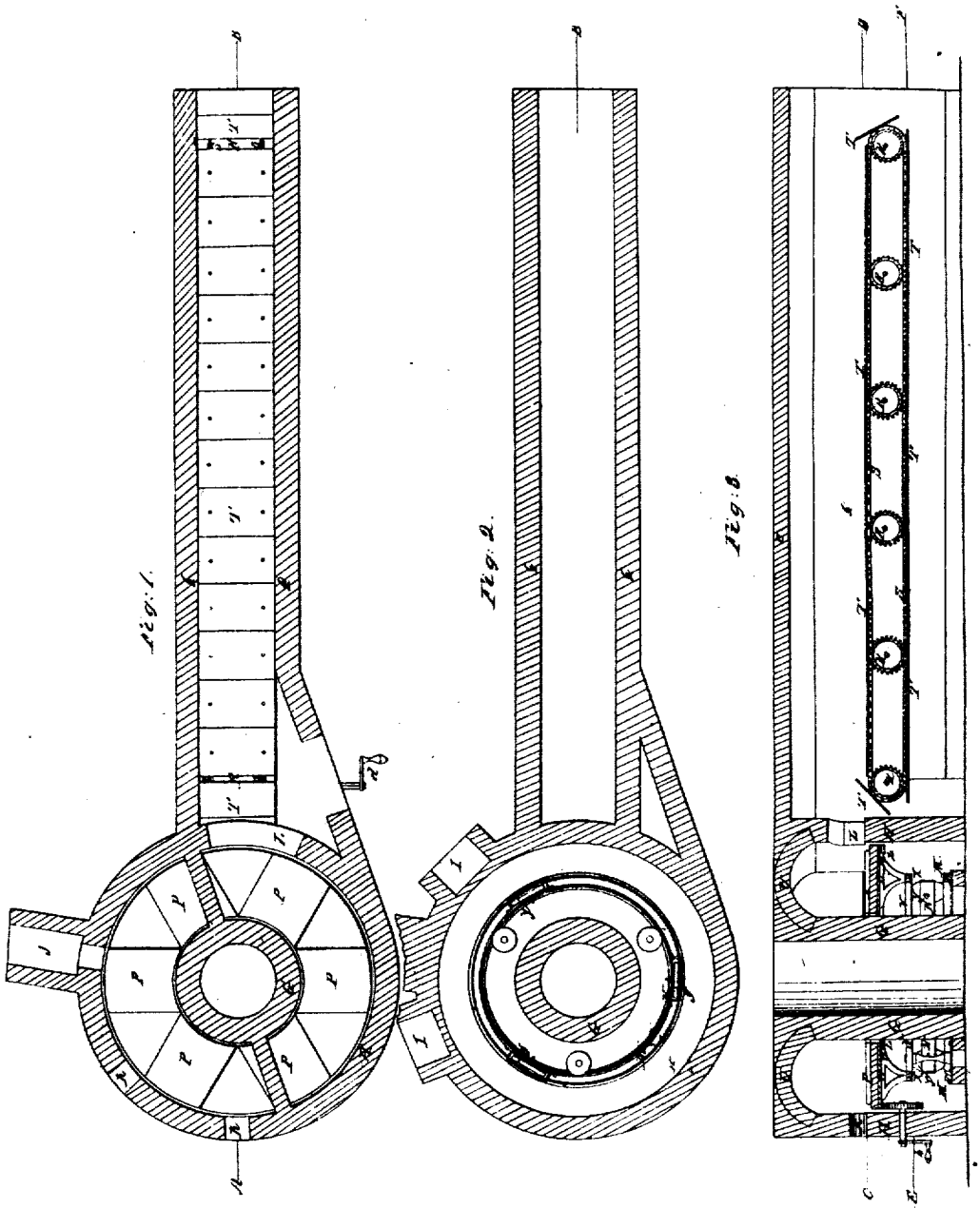
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J. J. Adams,

Glass Furnace.

Patented Apr. 21, 1832.



7114X Apl 21. 1832 257

John L. Adams

Letters Patent Dated April 21. 1832

The Schedule referred to in these Letters Patent, and making part of the same, containing a description in the words of the said John L. Adams himself, of his Improvement in the process of flattening Window Glass.

Be it known, that I John L. Adams, of the City of Washington, and District of Columbia, have made an improvement in the process of flattening Window glass, which is described as follows. 1st The Kiln, including the machine for flattening, is made circular, of any convenient size, and is usually built of brick or stone. On the base, and on each side, is made to admit fire and fuel. The slick or rear hole for admitting the glass cylinders, is left in the wall, near the top, and within about 3 feet of the tempering arch. Two openings for flattening mouths are also left on the same side with the flattening arch, about 5 or 6 feet apart. On the cooling oven side, an opening is left for taging the glass off the flattening stone upon the cooling or tempering plate. 2d An inner circular wall, of about 4 feet diameter is placed in the center of the outer circular wall before described. 3 A brick is sprung, resting on the inner and outer circular walls, leaving a circular opening within the inner circular wall of about 3 feet diameter. This may be either built of brick or fire clay. This arch is divided into two parts by mantles or divisions, leaving three of the flattening stones, with their intermediate spaces in each apartment. 4 An iron cast railway, of about 7 feet diameter, made of cast iron is placed on the center of the before described circular wall, having a groove or flange on it, for admitting the carriage with rollers supporting the flattening apparatus to be next described. 5 The flattening apparatus, is made of sheet iron, and of a size nearly to fill the circular space included within the circular walls; this may be divided into four or six divisions to receive the flattening stones. The flattening stones with their heads rest on bars a suffient distance on a ring and resting on the before mentioned rollers. 6, The cooling arch is about 30 feet long, and 3 feet wide. Two endless chains, about 3 feet apart, run in

7014X

models them in 4 or 6 dimes or cobbles, turning on gudgeons supported on the walls. On these chains are hung a number of sheet iron plates about 3 feet long and 2½ feet wide. The sheets of glass are taken off the flattening stone and placed on these revolving plates to cool. The chimneys for the fire work as usual thro' the outer circular wall; the smoke passing under the main arch or cover, and out at the cooling arch and cooling mouth. Operation.— The cylinder of glass is moved thro' the stick hole or mean, and put on one of the intermediate spaces to heat; the flattening apparatus is then turned till another space comes in a line with the stick hole, this brings the first mentioned cylinder in a line with the first flattening mouth; the glass is then laid open upon the flattening stone. The flattening apparatus is again turned till the first cylinder on the flattening stone comes in a line with the second flattening mouth, when it is flattened out; this movement also brings the third space in a line with the stick hole. The apparatus is again turned another space, which brings the first cylinder into the cooling apartment— when by turning the apparatus three sheets of glass are in the cooling apartment, then the first sheet is placed upon the first cooling plate. When the first cooling plate is filled, then the endless chain with the cooling plates upon them are turned the space of one plate, by a crank winding placed below; and so on till the business is completed. The invention ... how claimed and desired to be secured by Letters Patent is the before described process of flattening and cooling glass, particularly by the revolving flattening apparatus, and the revolving cooling plates placed on endless chains, likewise the arches covering the flattening & cooling apparatus: For a further illustration of my invention I refer to the model and drawing of the same deposited in the Patent Office. In witness whereof I have hereunto subscribed my name before two witnesses this 11th day of April 1832.

Witnesses
William P. Elliot
William G. Peacock

John J. Adams

(812 mw)

Recorded & Examined ... May 31st 1832