

S. KRAUSS.
Ice-Former.

No. 160,601.

Patented March 9, 1875.

Fig. 1

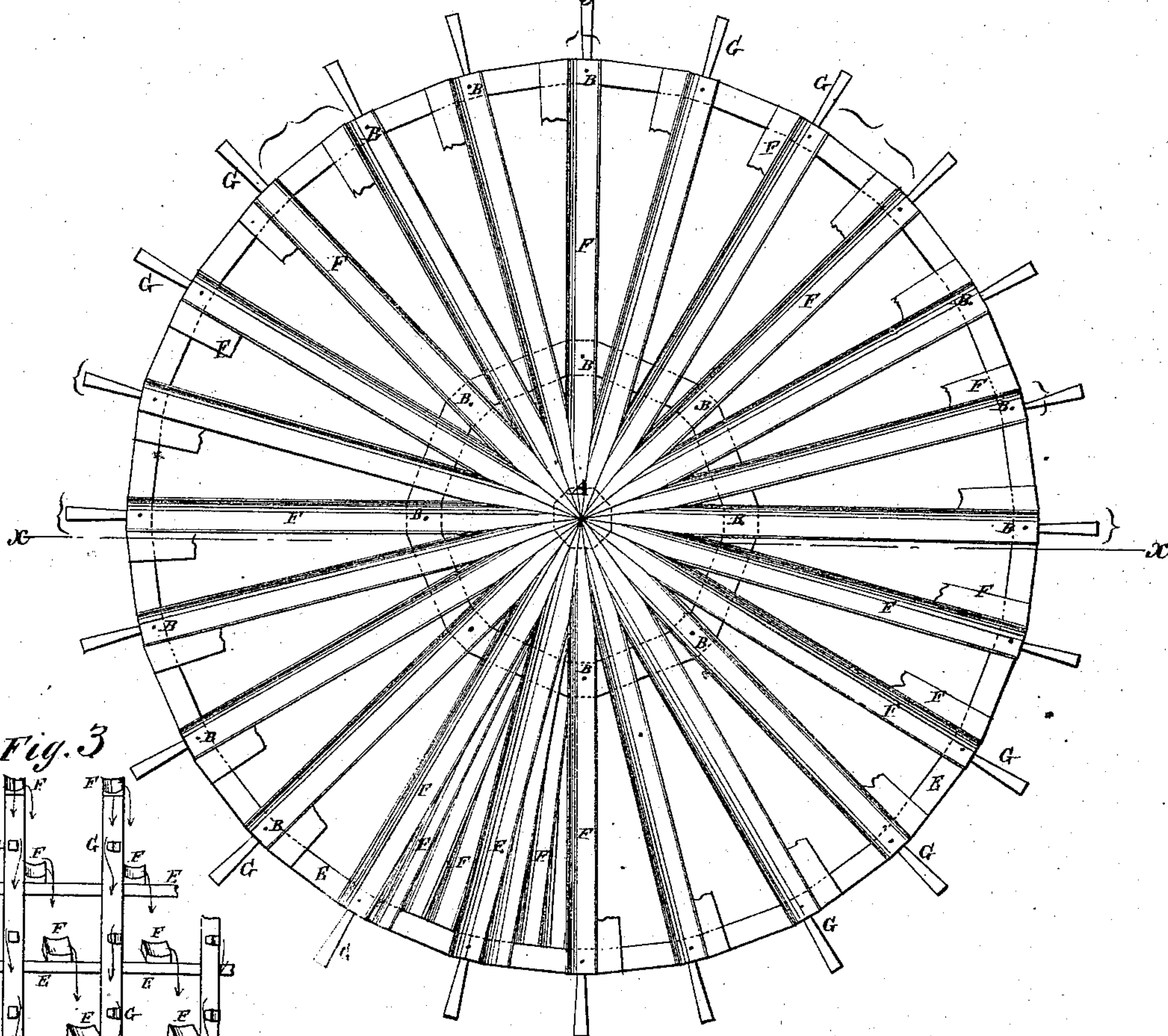


Fig. 3

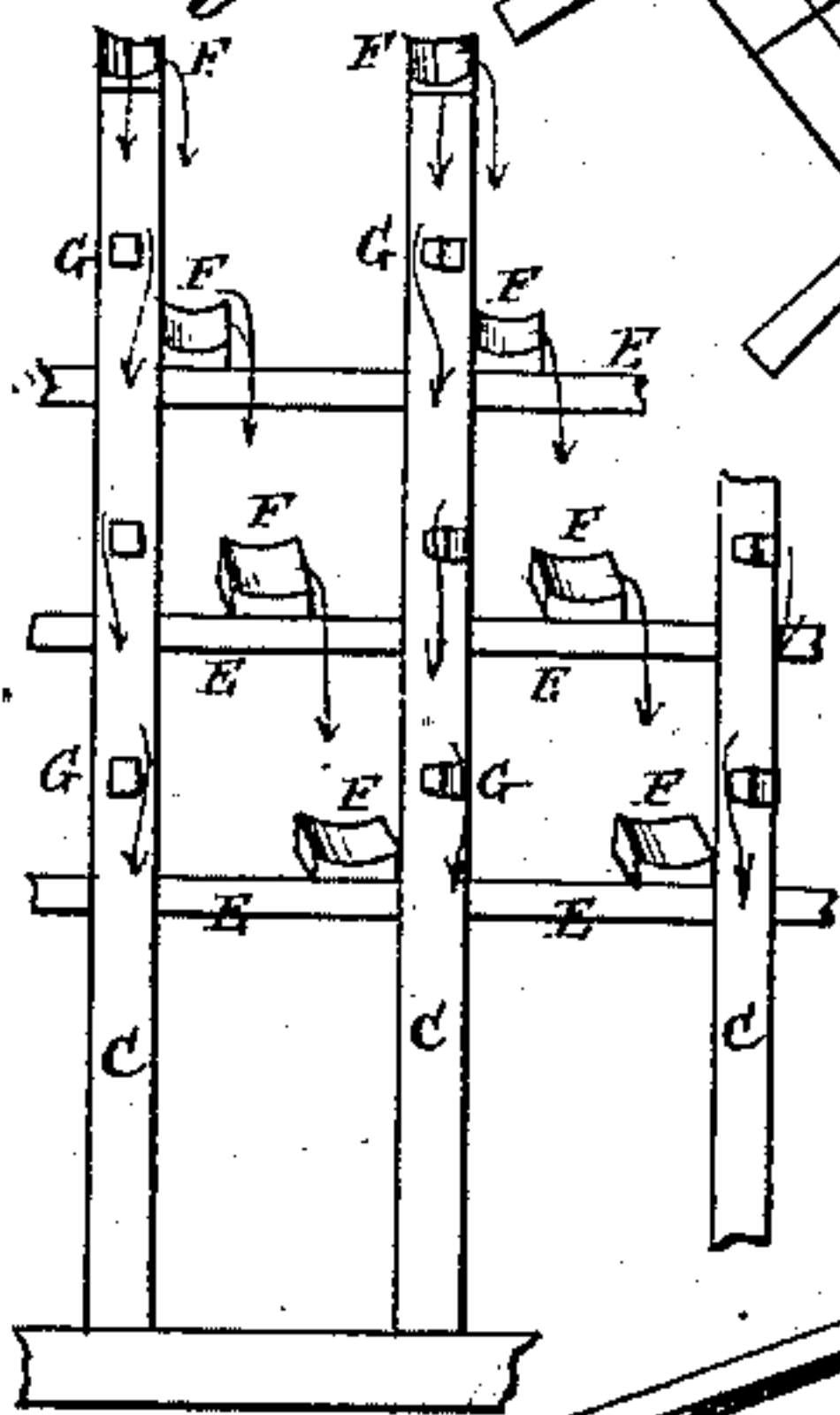
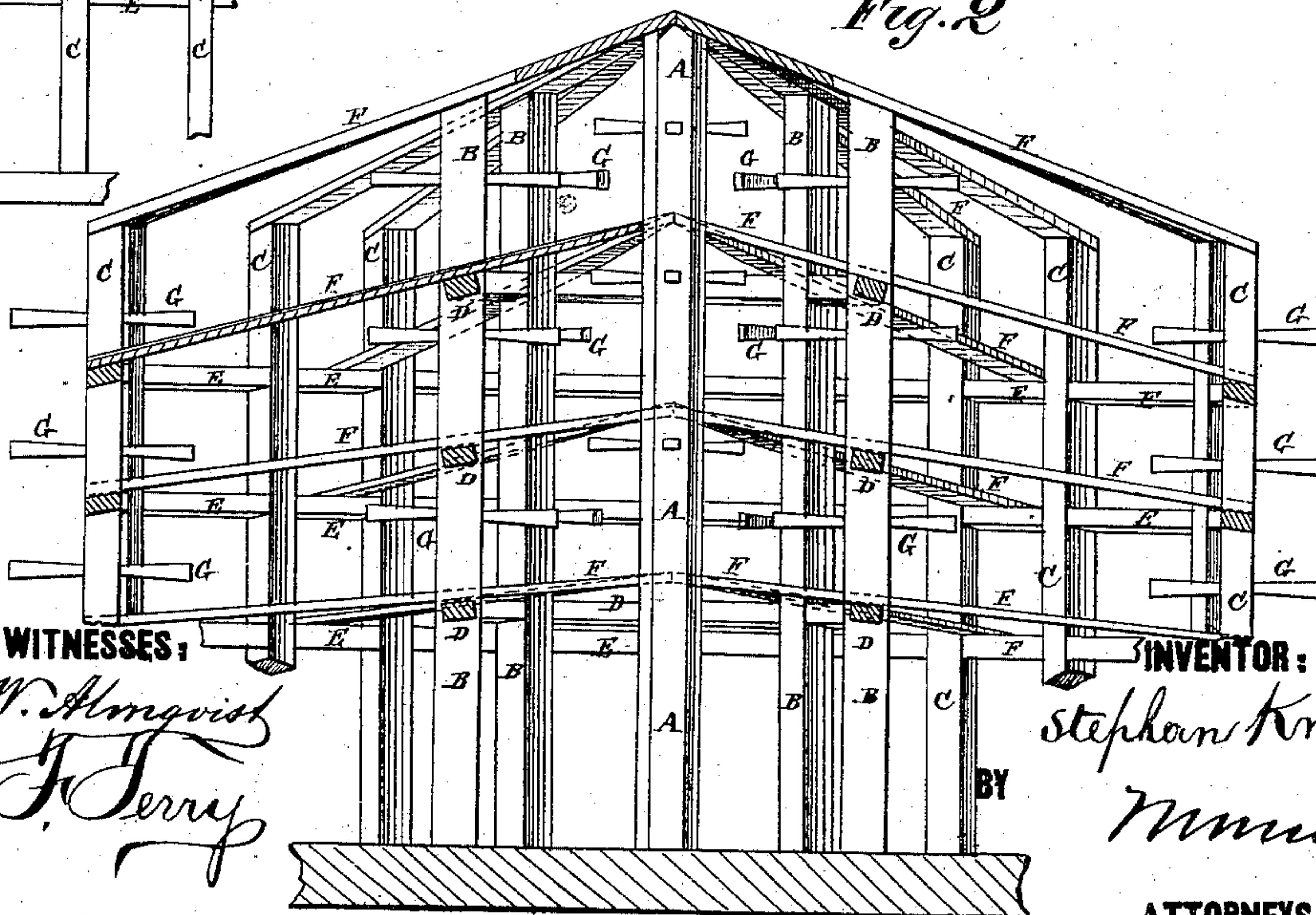


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

STEPHAN KRAUSS, OF CLIFTON, NEW YORK.

IMPROVEMENT IN ICE-FORMERS.

Specification forming part of Letters Patent No. 160,601, dated March 9, 1875; application filed February 13, 1875.

To all whom it may concern:

Be it known that I, STEPHAN KRAUSS, of Clifton, in the county of Richmond and State of New York, have invented a new and useful Improvement in Ice-Formers, of which the following is a specification:

Figure 1 is a top view of my improved ice-former. Fig. 2 is a vertical section of the same, taken through the line *xx*, Fig. 1, and showing the parts marked with brackets in Fig. 1, the other parts being omitted to avoid confusion. Fig. 3 is a detail side view of a portion of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device that will enable those who have an abundance of water, but no facilities for harvesting a supply of ice in the usual way, to make ice for themselves in any desired quantity. The invention consists in the combination of the posts, the cross-bars, two, three, or more tiers of shallow spouts, and the pins or cross-bars with each other, in substantially the manner herein shown and described, for forming ice rapidly by minutely dividing a small stream of flowing water while exposed to the air, as hereinafter set forth.

A is a central post, around which, and at a short distance from it, is set a circle of posts, B, and around which, and at a greater distance, is set a second circle of posts, C. The posts B of the inner circle are connected by cross-bars D, and the posts C of the outer circle are connected by cross-bars E. The posts B are made higher than the posts C, and the central post A is made higher than the post B, as shown in Fig. 2. To the top of the posts A B C, and to the cross-bars D E, are attached two, three, or more tiers of narrow shallow spouts, F, placed radially and at such an inclination that water will flow down them freely, the spouts of each lower tier being so

arranged as to be beneath the edges of the spouts of the next upper tier. To the posts A B C are also attached numerous pins or cross-bars, G. Around the device, and at the distance of a few feet from the outer circle of posts, is designed to be placed a close fence, to prevent the water from flowing off, and for the ice to be formed against.

In using the device, a small stream of water is allowed to flow upon the apex of the upper tier of spouts F, which will be subdivided by said spouts and will trickle down them. As the concavities of the spouts F of the upper tier fill with ice the water will drip from their edges upon the spouts of the tiers below. The water, as it drips from the spouts F, will also fall upon the pins or cross-bars G, and will thus be further subdivided. In this way the water will be exposed to the air in films, drops, and very small streams, will be very rapidly frozen, and will form in sheets and icicles upon all parts of the apparatus, and upon the ground around the apparatus, enabling a large quantity of ice to be formed in a very short time. When a sufficient quantity of ice has been formed the apparatus may be covered with a shed, so as to serve as an ice-house for storing the ice; or the ice may be cut out and stored in some other suitable place.

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

The combination of the posts A B C, the cross-bars D E, two, three, or more tiers of spouts, F, and the pins or cross-bars G with each other, in substantially the manner herein shown and described, for forming ice rapidly by minutely dividing a small stream of flowing water while exposed to the air, as set forth.

STEPHAN KRAUSS.

Witnesses:

JAMES T. GRAHAM,
T. B. MOSHER.