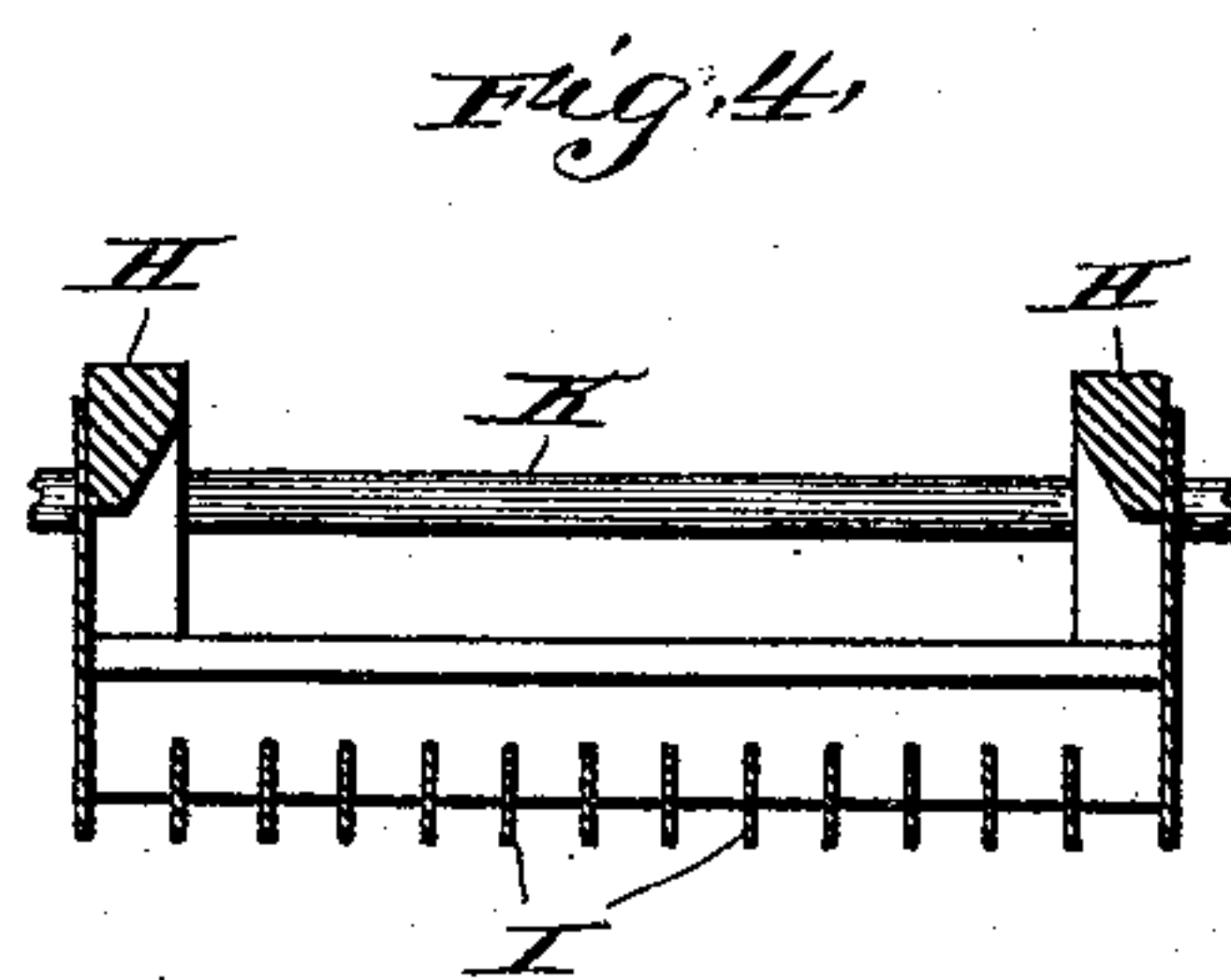
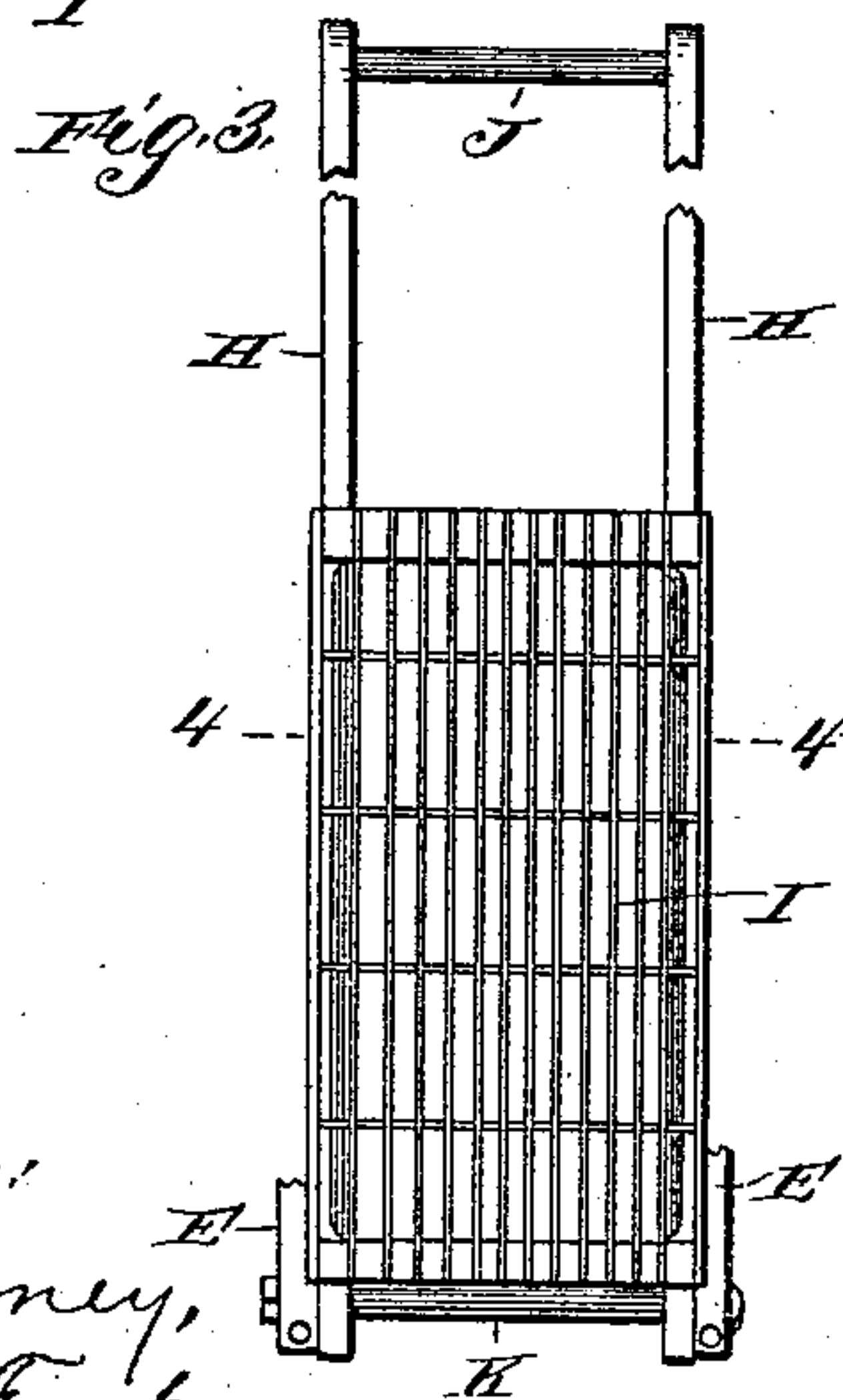
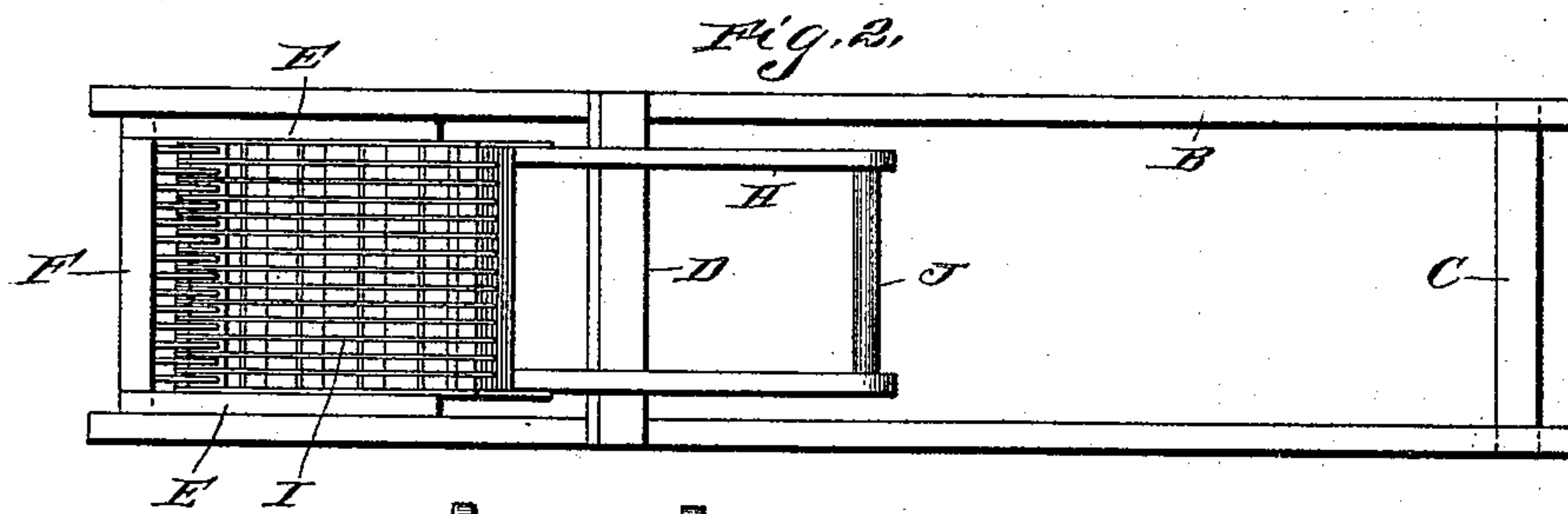
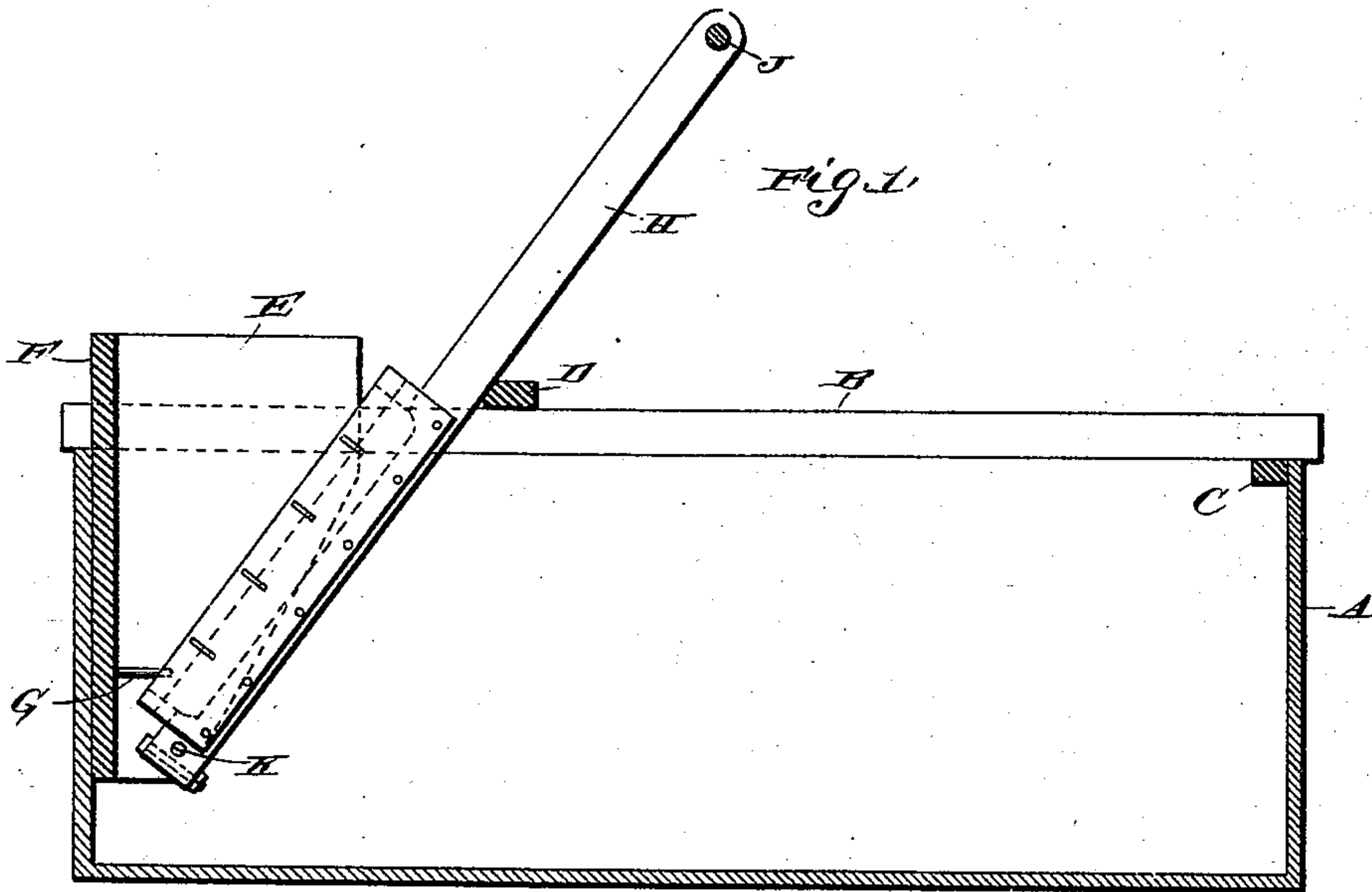


(No Model.)

A. C. WHITING.
CURD CUTTER.

No. 487,811.

Patented Dec. 13, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

AMOS C. WHITING, OF LADOGA, WISCONSIN.

CURD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 487,811, dated December 13, 1892.

Application filed June 14, 1892. Serial No. 436,679. (No model.)

To all whom it may concern:

Be it known that I, AMOS C. WHITING, of Ladoga, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Improvement in Curd Cutters or Mills, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in curd cutters or mills. In devices of this character now commonly used knives are usually employed, acting upon the curd in a direct or straight line. As the curd is extremely tough, it is found difficult in devices of the above character to readily separate or comminute the particles.

It is the primary object of my invention to produce a construction possessing the capability of separating or cutting the curd in an easy and expeditious manner; and with this end in view the invention consists in the improved construction hereinafter more fully set forth.

In the drawings, Figure 1 is a vertical section through the improved apparatus applied to a tank or trough, said tank being shown in transverse section. Fig. 2 is a detail plan view of the device removed from the tank or trough. Fig. 3 is a detail view of the pivoted cutting-knives, and Fig. 4 is a transverse section on the line 4 4 of Fig. 3.

Like letters of reference designate like parts throughout the several views.

The letters A, Fig. 1, indicates an open tank or trough, to which my invention is preferably applied.

The frame of the curd cutter or mill consists of the side strips B B, an end transverse strip C, and a medial transverse strip D. At the end of the frame opposite to transverse strip C is arranged a supplemental frame consisting of the side pieces E E, having their front edges preferably inclined rearwardly for a certain length, and a back connecting-piece F; said back piece having extending forwardly therefrom near its lower end a series of pins G, which serve as supports for the curd to be cut or separated. This supplemental frame is secured between the side pieces B B, and the ends of said side pieces when the frame is applied to the tank or trough A rest upon and are supported by the side pieces of said tank or trough.

The cutting apparatus consists of the longitudinal strips H H, having secured thereto cutting-knives I, a set of said cutting-knives running parallel with the longitudinal strips H and another set running transversely thereto, so as to form, practically, an open mesh. From the drawings it will be observed that the edges of the cutting-knives extend rearwardly beyond the corresponding edges of the longitudinal strips H. These latter are connected at their forward ends by a transverse bar J, which serves as a handle for manipulating the cutting apparatus. The knife-frame turns at its lower end pivotally upon a transverse bolt K, which has its bearings in the side pieces E E of the supplemental frame. The arrangement of this bolt is such that the pivotal point is slightly to one side and back of the cutting-edges of the knives. When the cutting apparatus is not in active use, the medial portion of the frame thereof bears against the transverse strip D.

In operation the curd to be cut or comminuted is placed upon the horizontal pins G and the cutting apparatus is moved laterally toward the back piece F. The knives form an open mesh, and as the cutting-edges thereof encounter the curd the severed pieces thereof pass through the openings and are deposited in the bottom of the tank or trough.

The great advantage claimed by me is that the location of the pivotal point to one side of or out of line with the cutting-edges of the knives and at the lower end of the cutting apparatus produces what I term a "draw cut"—that is to say, the lower edges of the knives first encounter the curd at the lower end thereof, where it is most easily cut, and as the severed particles pass through the meshes and the cutting apparatus is further moved toward a vertical line the unsevered particles will displace the particles which have been forced through the meshes and likewise be supported upon pins G, thus constantly presenting the curd in position to be most readily cut or severed. When the cutting apparatus has completed its full movement, the edges thereof will be practically in line with the back piece F.

In the operation just described the particles of the curd are not subjected to compression or grinding, with the result that the

butter-fat is retained, which is an important desideratum in cheese-making.

Another advantage which will be readily appreciated is the facility with which the different parts constituting the device may be separated or dismantled for cleaning purposes.

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

10 1. In a curd cutter or mill, the combination, with a frame, of a cutting apparatus pivoted thereto at its lower end and adapted to be brought forwardly against the curd, said cutting apparatus forming an open mesh through
15 which the severed particles of the curd pass as the knives are operated and deposited to the rear of the cutting apparatus, substantially as set forth.

20 2. In a curd cutter or mill, the combination, with a frame provided near its lower end with a series of horizontal pins adapted to support the curd to be cut, of a cutting apparatus pivoted at its lower end to said frame and consisting of a series of knives forming an
25 open mesh and adapted to be brought forwardly against the curd, the ends of the horizontal supporting-pins extending into the openings formed between the knives, substantially as set forth.

30 3. In a curd cutter or mill, the combination, with a frame, of a cutting apparatus pivoted

at its lower end to said frame, the pivotal point being to one side and back of the cutting-edges of the knives to cause an oblique cut of said knives, substantially as set forth. 35

4. In a curd cutter or mill, the combination of a frame supported upon an open tank or receptacle, a supplemental frame secured between the side strip of the first-mentioned frame and provided with a suitable supporting medium for the curd, and a cutting apparatus pivoted at its lower end to the supplemental frame, substantially as set forth. 40

5. In a curd cutter or mill, the combination of a frame consisting of side strips and end
45 and medial transverse strips, a supplemental frame arranged between the side strips of the first-named frame at one end thereof, said supplemental frame provided with a suitable supporting medium, a knife-frame consisting
50 of side pieces and a connecting end bar or handle, said knife-frame pivoted at its lower end to the supplemental frame, and a series of knives arranged longitudinally and transversely of the knife-frame to form an open
55 mesh, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AMOS C. WHITING.

Witnesses:

FRANK BOWE,
LOY. I. PORTER.