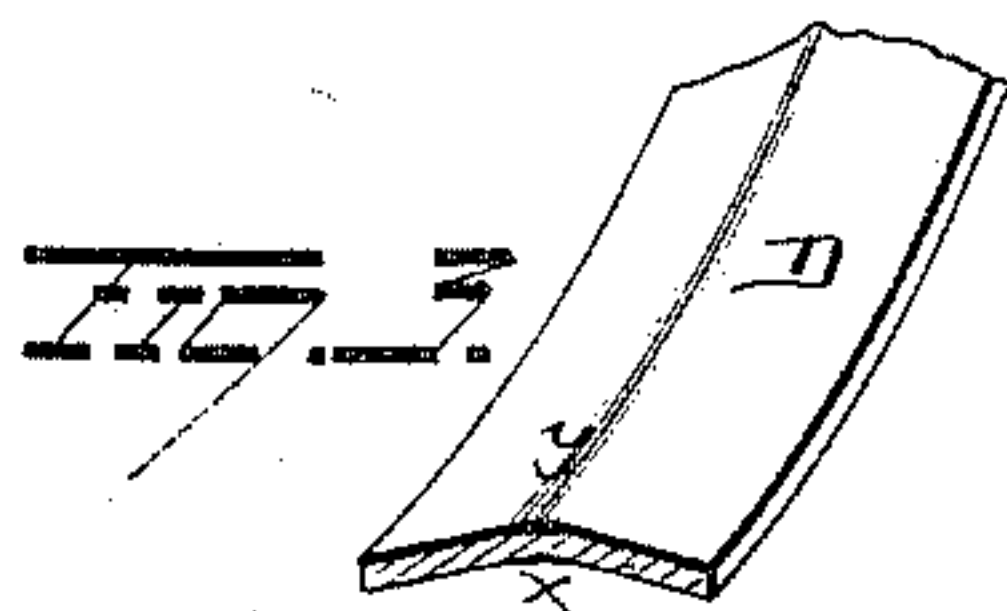
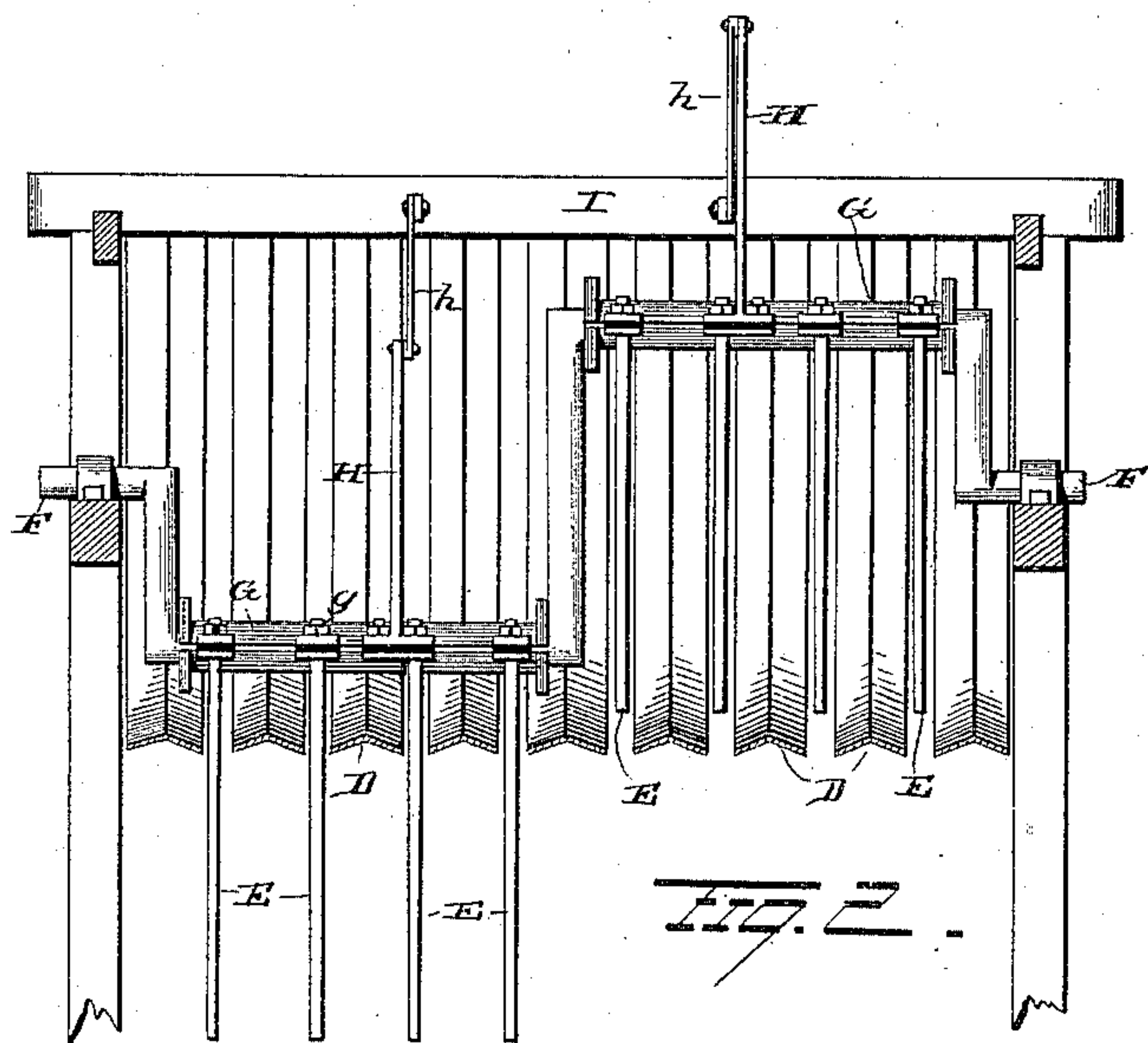
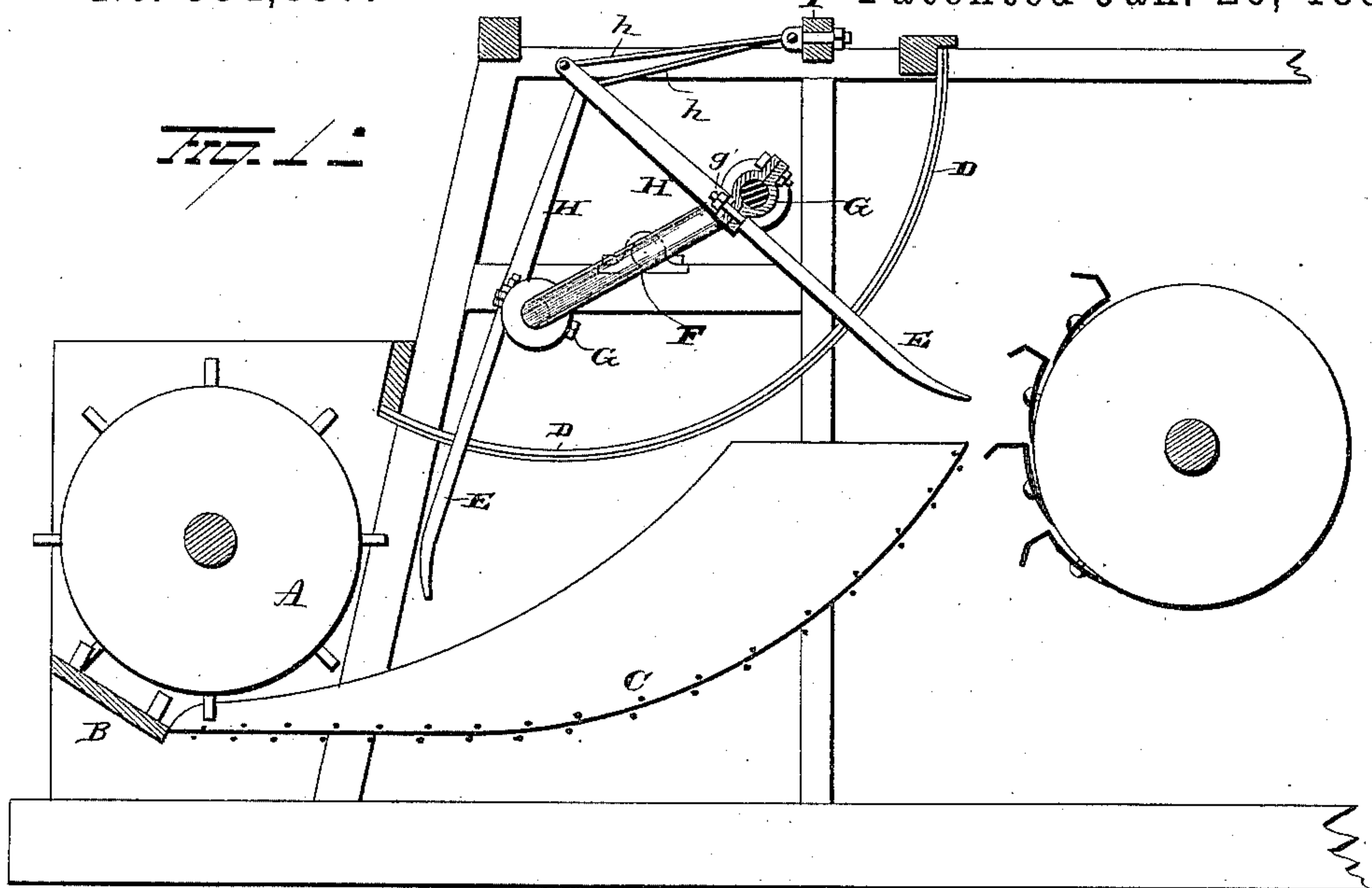


(No Model.)

T. E. GILKESON.
THRASHING MACHINE.

No. 334,857.

Patented Jan. 26, 1886.



WITNESSES
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UNITED STATES PATENT OFFICE,

THOMAS E. GILKESON, OF LODA, ILLINOIS, ASSIGNOR TO THE CASE & WILLARD THRESHER COMPANY, OF BATTLE CREEK, MICHIGAN.

THRASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 334,857, dated January 26, 1886.

Application filed October 24, 1885. Serial No. 180,808. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. GILKESON, of Loda, in the county of Iroquois and State of Illinois, have invented certain new and useful
5 Improvements in Thrashing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My invention relates to an improvement in thrashing-machines.

It is found that in handling flax and grains where the straw is tough and liable to split into long fibers, the fibers have a tendency to
15 wind on the shafting and cylinder, and consequently to impede the progress of the machine, and render it less effective.

The object of my present invention is to provide an improved construction of fork-head
20 and guards in connection with the mechanism for transferring the straw from the thrashing-cylinder to the screens or endless-belt carrier.

With these ends in view my invention consists in certain features of construction and
25 combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a portion of a thrasher embodying my invention in vertical longitudinal section.
30 Fig. 2 is a front view of the fork-shaft, forks, and guards in position for use; and Fig. 3 is a cross-section of one of the guards.

A represents the thrashing-cylinder; B, the concave, and C the rearwardly and upwardly
35 extending grate, over which the straw is conducted from the thrashing-cylinder to the shaking screens and straw-carrier.

To the rear of the cylinder A and above the grate C is located a series of ribs, D, forming a guard, between which the fork tines or
40 teeth E travel in forcing the straw rearwardly as it leaves the cylinder A. The ribs D are secured at their front ends just at the rear and above the center of the cylinder A, and extend
45 from thence in curved form, as shown, above the grate C, to a point at or near the upper portion of the thrasher-frame, where they are secured to a suitable cross-bar. Each of the ribs D is hollowed out on its under side, as shown at
50 *x*, and rounded or beveled on its upper side, as shown at *y*. The rib may be inverted-V shape in

cross-section, or it may be curved, or the central portion may be flat and the edges slanting. The object is to provide inclined edges for the rib, so that the fine fiber of the flax,
55 straw, or twine from the bands of the sheaves, which tends to work up through the spaces between the ribs will slide back again, instead of accumulating on the upper sides and clogging the crank-shaft. The hollow lower faces
60 of the ribs form channels, which direct the course of the blast of air from the cylinder A along the length of the rib, and the fibers, which would otherwise creep up through the spaces between the guards are thereby drawn back
65 into the machine. Above the ribs D the double crank shaft F is adapted to rotate, its ends being journaled in suitable bearings in the sides of the machine.

On the cranked portions of the shaft F the
70 fork heads G are secured. The heads G consist of elongated sleeves, either made in one piece and slipped into position before the crank is complete, or, preferably, in two half-sections, as shown in the drawings. The
75 sleeves or heads G are adapted to loosely fit the shaft, and are provided with laterally-extending perforated lugs *g*, in which the heads of the tines or teeth E are secured, preferably
80 by means of draw-nuts *g'*, in engagement with the threaded ends of the tines. When the sleeves are constructed in two half-sections, the teeth, secured as stated, form at the same time bolts for locking the two half-sections
85 together.

Near the central portions of the sleeves or
85 heads G, and in a plane with the tines E, the upwardly-extending arms H are secured, the upper ends of the arms H being connected to a cross-bar, I, by rods or links *h*. The combined effect of the rotary motion of the crank-shaft and the jointed connection H *h* is to
90 cause the tines E to descend nearly their entire length, with but slight forward motion, at the end of the guard nearest the thrashing-cylinder, and then to move forwardly along
95 the length of the guard with their full length extending below the guard, and, finally, at the point where they stop moving toward the rear of the machine, they move back a short
100 distance from the straw which they are forcing rearwardly before they withdraw above

the guards. This motion prevents as far as possible any tendency to draw the fiber above the guard, and enables the tines to grasp the straw to its full depth at the very start.

5 I am aware that it is not new to employ a series of forks mounted on a crank and adapted to move between ribs and links for regulating the movement of forks, and hence I make no claim, broadly, to such construction.

10 It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but

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

20 1. The combination, with the thrashing-cylinder, the straw-conduit, and forks, of a series of ribs forming a guard, each of said ribs having a hollowed-out face and beveled back, substantially as set forth.

25 2. The combination, with the thrashing-cylinder, and the straw-conduit located behind the thrashing-cylinder, of a series of longitudinally-curved ribs forming the upper side of the straw-conduit, the said ribs having double inclined backs, for the purpose substantially as set forth.

3. The combination, with the thrashing-cylinder and the straw-conduit leading therefrom, of a guard composed of a series of hollow-faced ribs adapted to form the upper side of the straw-conduit and hold and direct the 35 air-blast from the cylinder, and forks for forcing the straw rearwardly through the straw-conduit, substantially as set forth.

4. The combination, with the thrashing-cylinder and the forks adapted to remove the 40 straw therefrom, of a series of hollow-faced slanting-backed ribs adapted to form the upper side of the straw-conduit, substantially as set forth.

5. The combination, with the frame, the 45 crank-shaft, and the fork head consisting, essentially, of an elongated sleeve made in two parts and provided with laterally-extending perforated lugs, of the tines secured in said lugs and a jointed arm secured to the sleeve 50 and frame, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS E. GILKESON.

Witnesses:

JAMES GREEN,
ALFRED G. HIGHAM.