

(No Model.)

T. F. PYE & C. D. FLINT.

MUSIC LEAF TURNER.

No. 343,966.

Patented June 15, 1886.

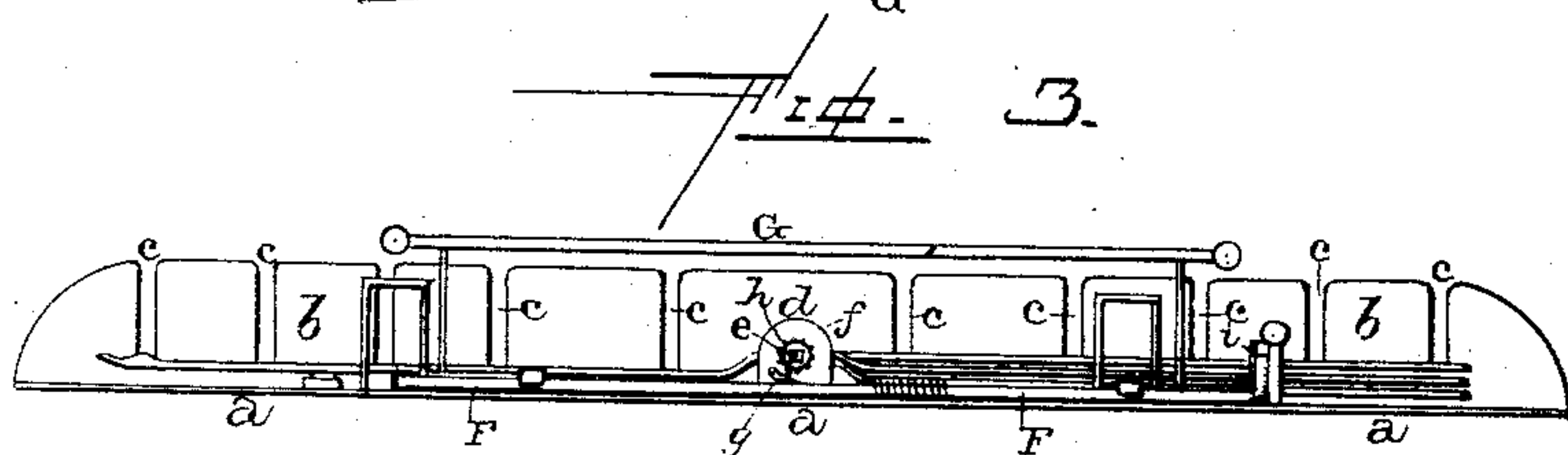
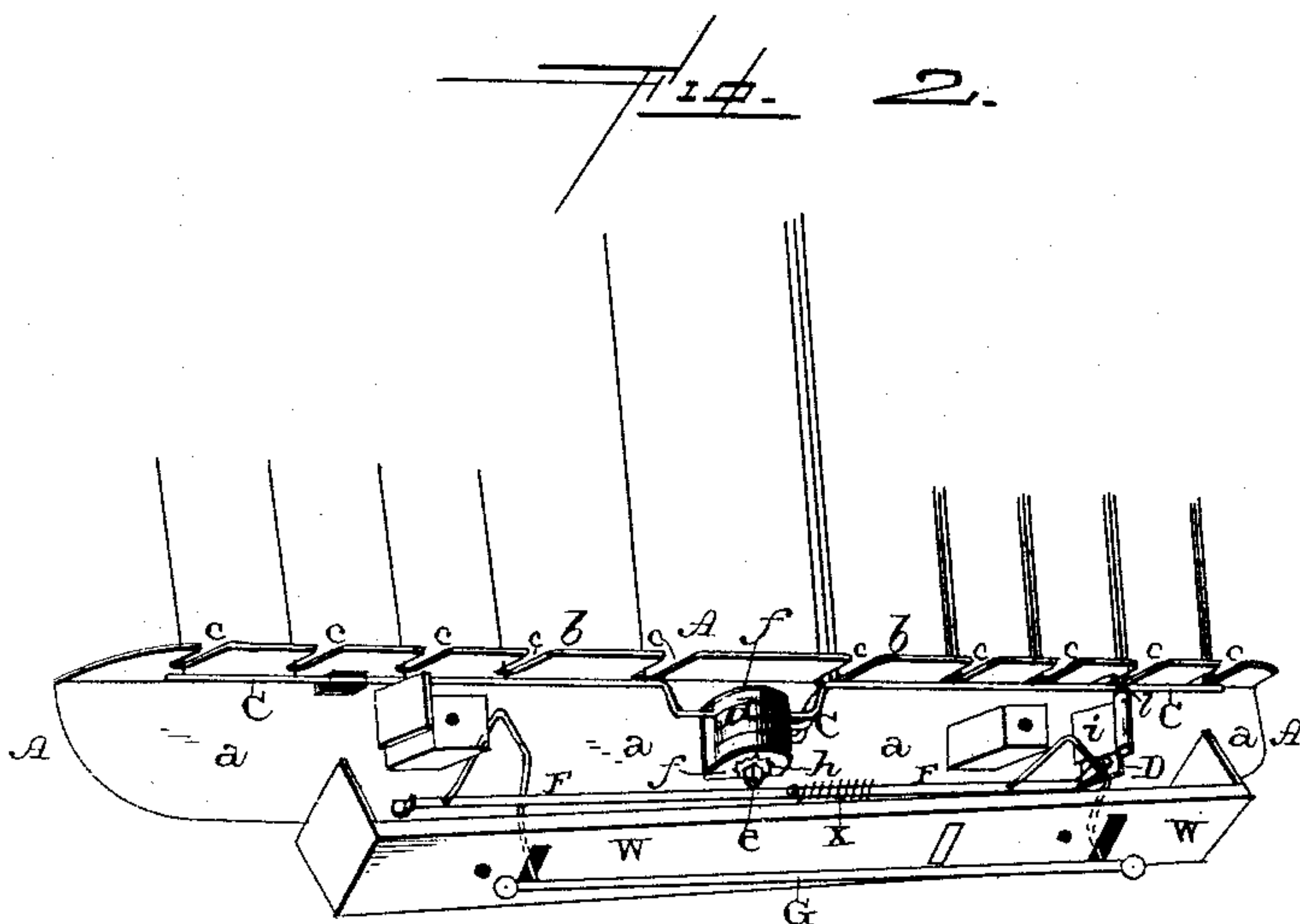
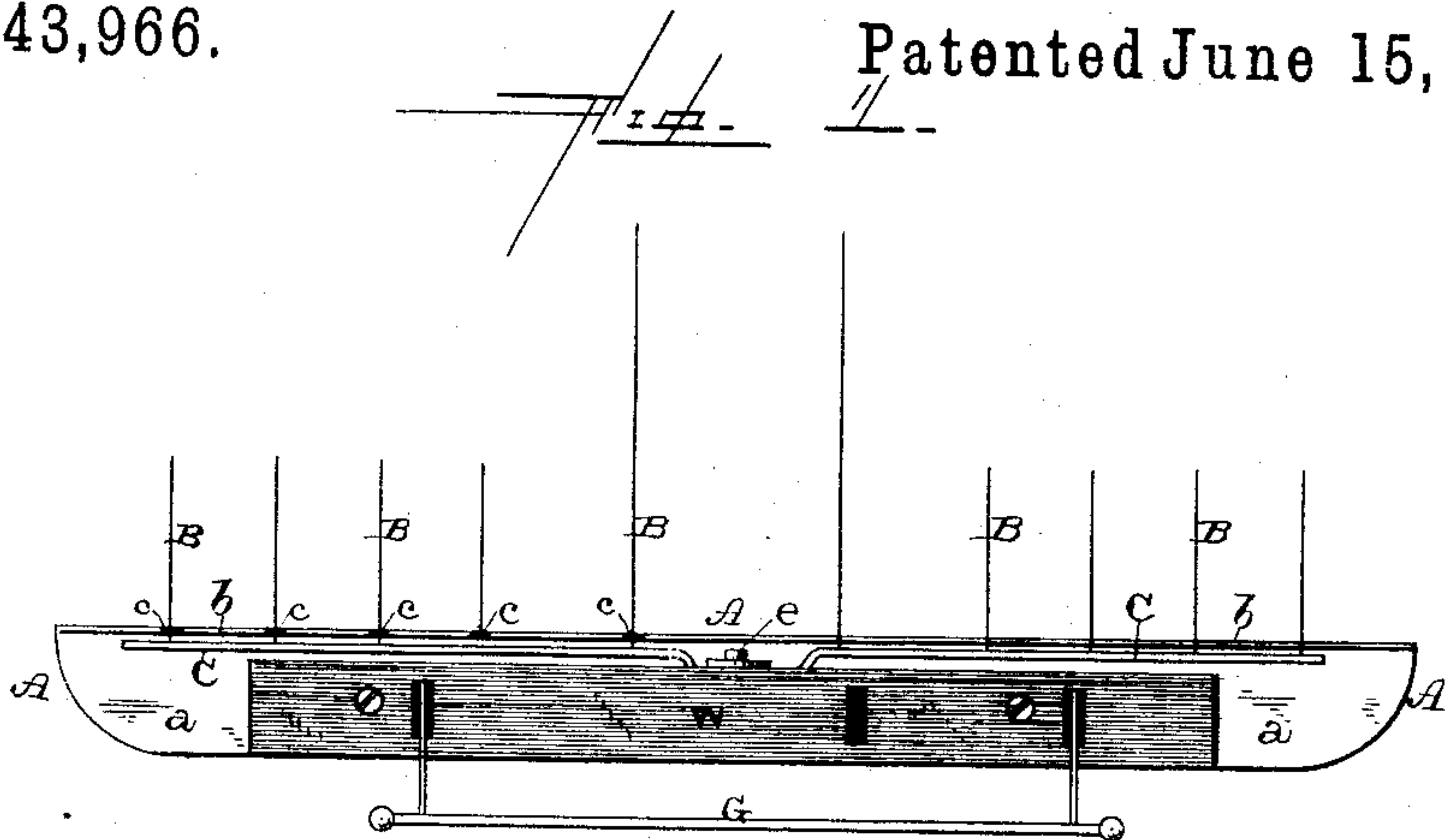
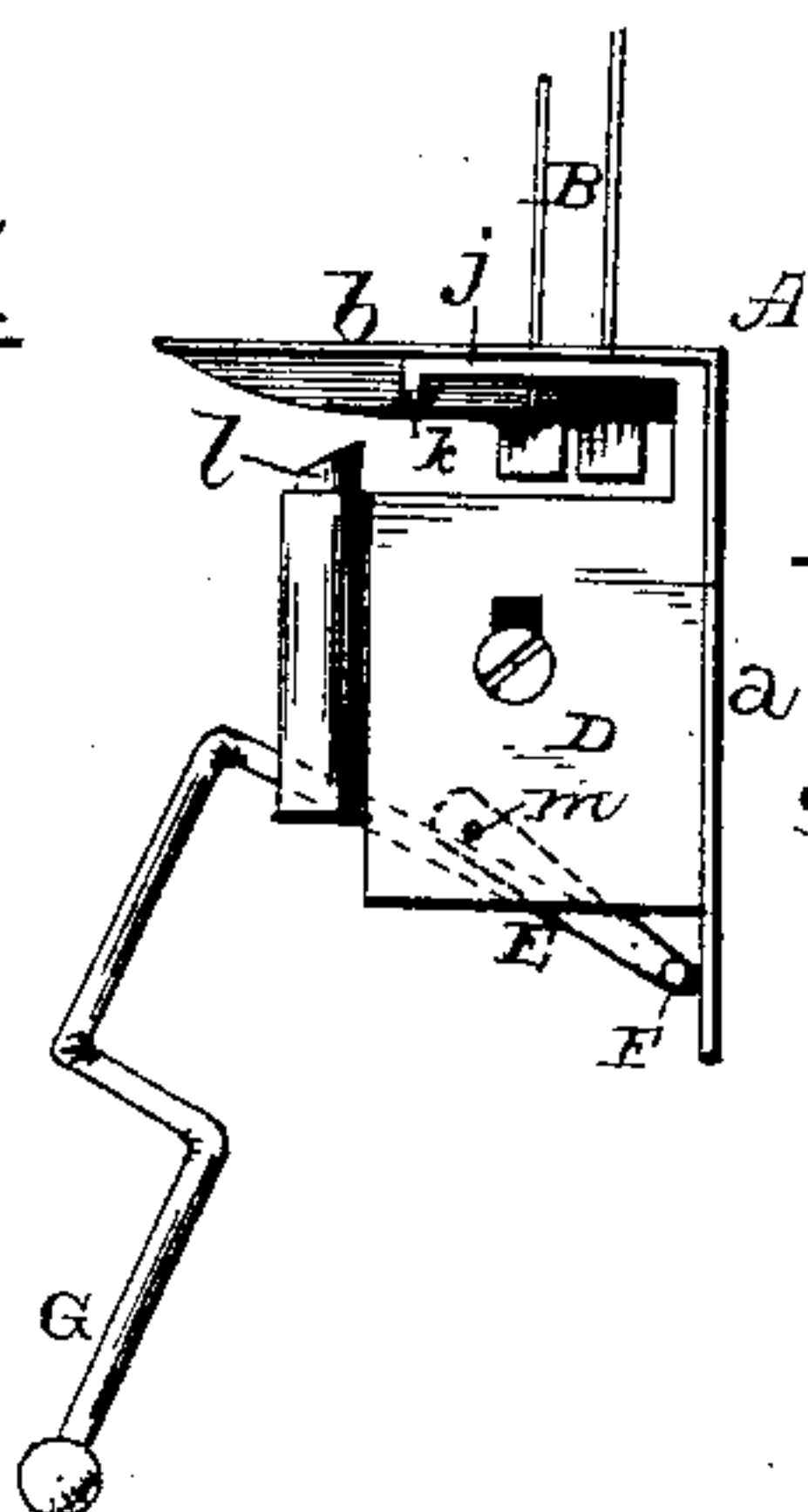


Fig. 4.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## MUSIC-LEAF TURNER.

SPECIFICATION forming part of Letters Patent No. 343,966, dated June 15, 1886.

Application filed June 1, 1885. Serial No. 167,269. (No model.)

*To all whom it may concern:*

Be it known that we, THOMAS F. PYE and CHARLES D. FLINT, citizens of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Music-Leaf Turners, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in devices for turning of leaves of music, wherein a case inclosing a mechanism for retaining and moving spring-revolving arms, operated by a spring-lever, is so arranged as to be readily adjusted to the piano or organ or the ordinary portable music-rack; and the objects of our invention are, first, to provide a simple and reliable device for turning the leaves of a music book or sheet; second, to so construct the case which contains the mechanism that every part is readily accessible and the case easily adjusted to the most convenient position; and, third, to afford special facilities for operating the arms with certainty and dispatch, the entire mechanism being inexpensive, simple, and reliable in its construction, arrangement, and operation.

In the drawings, in which similar letters indicate like parts, Figure 1 is a front elevation of a device embodying our invention. Fig. 2 is a perspective of the same, the front portion of the frame being drawn back out of place. Fig. 3 is an inverted view. Fig. 4 is an end view.

A is a case, preferably made of metal and of any suitable ornamental form. It is designed to contain the spring mechanism by which the leaf-turners are operated, and consists of a rear plate or bar, *a*, which is intended to rest against the ordinary piano or organ rack or portable music-stand, to which it can be securely held by pivoted buttons or other suitable devices. To the upper edge of the plate *a* is fastened the upper face-plate, *b*, which is wide enough to cover the interior mechanism and sustain the music book or sheets. It is provided with recesses *c c*, which extend transversely from its front edge across it sufficiently far to allow free passage for the leaf-rods B, which are attached to and

project vertically from a series of horizontal spring-revolving arms, C. Two or more of these vertical rods project from each arm, the one near the center of the case being the longest, to more easily carry the leaf near its fold. The interior extremity of each of the arms C terminates in a barrel, *d*, for the insertion of a coiled spring, one end of which is attached to the stem *e*, on which the arms respectively rotate. An angular bend is made near the barrel end of each arm, to enable them to swing in regular order successively and in the same plane. The stem *e* is supported by the flange-plates *f f*, which are securely riveted to the center of the inside of the rear plate, *a*. By means of a key made to fit its lower end, the stem can be revolved, and thereby increase the force of the several springs by which the arms C are actuated. The reverse motion of the stem is prevented by means of the click *g*, which is adapted to engage the teeth of the ratchet-wheel *h* on the stem. Thus arranged the force of the half-revolution of the arms C from right to left is easily regulated, and when once adjusted a change is rarely required, unless to compensate for loss of the elastic power of the spring, inasmuch as the arms continually pass back and forth over the same ground.

To the interior face of the rear plate, *a*, near its right-hand extremity, when the case A is in position, is secured the flanged projection *i*, which sustains the vertically-sliding plate D, by means of which each of the swinging arms C is securely held in place until it is desired to turn the leaf which has been passed alternately back and front of the leaf-rods B of one of the arms C. The plate D is arranged to slide vertically on a screw which passes through an elongated slot in its center and thence into the side of the flange *i*, where it is secured.

*j* is an arm, which is attached to the top of the rear edge of the plate D, and projects forward nearly the width of the plate, allowing sufficient space to intervene between it and the top edge of the plate D for the free lateral movement of the arms C, and having its outer end, *k*, turned downward to catch and retain all of the arms C, except the one last released,



which last arm is held by the bolt *l* in the socket or tube attached to the front edge of the plate D. This bolt is so arranged that by means of a spring beneath its lower end its upper extremity is made to project above the upper edge of the plate D, so as to prevent the arm C, which presses against it, from swinging around to the opposite end of the case A, until by dropping the plate D the bolt *l* is lowered sufficiently for the arm held by it to pass over it.

The forward edge of the bolt *l*, on its upper end, is suitably beveled to enable the arms C to be passed over it, when they are forced by the operator into the open space back of the bolt *l* and between the arm *j* and the top of the plate D.

The plate D is moved vertically by the crank E, whose wrist or pin *m* is pivoted to the lower end of the plate, and whose shaft is the horizontal rod F, hung near the bottom of the interior face of the rear plate, *a*. This rod is partially revolved by a downward pressure upon the lever or handle G, rigidly attached to it, and which can be operated by a light quick blow of the hand or finger, or, if preferred, by a sudden pressure of the foot upon a pedal connected to it beneath. The result is the sudden dropping of the plate D by the downward movement of the crank E, and with it the bolt *l*. The arm C, which was pressing against the bolt *l* by the force of the coiled spring in its barrel *d*, being no longer confined, quickly swings around against the other end of the plate *a*, carrying with it the leaf of music attached to it by the leaf-turners B on the arm. Meanwhile the sudden return of the plate D to place by the force of the coiled spring *x* upon the rod F as soon as the pressure upon the lever G is taken off confines all the succeeding arms, which are back of the projection *k* of the arm *j* by reason of the front one, which has quickly occupied the position of the arm just released, being held by the bolt *l*, where it remains until released by the dropping of the bolt *l* by another sudden pressure upon the lever G in the same manner as before described.

As the several leaves to be turned are first so arranged upon the leaf-rods B in the order of the movement of their respective arms C that they will be turned from right to left by the swinging of the arms in that direction, it is apparent that the work of turning them is quickly and successfully accomplished. At the same time it is impossible to turn more than one leaf at a time by a single pressure

upon the lever or handle G. Should it be desired to repeat this movement of the music-leaves, it is only necessary to return the arms C back to their place below the arm *j* by taking hold of the handle S, which projects from the outer extremity of the rear arm next to the plate *a*, when by means of the lever G the leaf-turning movement can be easily repeated. A removable plate, *w*, protects the entire mechanism on the front, bottom, and ends, so that it is contained securely within a single case, which is practically independent of the rack to which it may be temporarily attached, is convenient and portable in form, simple in construction, and reliable and rapid in its operation.

We do not claim the swing-arms and leaf-turning rods in connection with devices for turning music-leaves in connection with musical instruments or portable stands, broadly, as we are aware that such devices have been heretofore invented, but of different construction and mode of operation from ours; but

What we do claim as our invention is—

1. The plate D, having the spring-bolt *l* on its front edge, and provided with the horizontal arm *j*, having the end projection, *k*, so arranged as to be moved vertically on the flanged support *i* by means of the lever G through the spring-rod F and crank E, substantially as and for the purpose set forth.

2. In a music-leaf turner, the spring-actuated arms C, pivoted on the stem *e*, which is arranged so as to be revolved by a key, in combination with the sliding plate D, crank E, spring-rod F, and lever G, substantially in the manner as shown and described.

3. In a music-leaf turner, the case A, adapted to be adjusted to the rack of a musical instrument or stand, and having its top plate, *b*, recessed at *c c* to permit the exit and entrance of the leaf-rods B, and provided with an interior mechanism consisting of the spring-actuated arms C, pivoted on the key-winding stem *e*, the sliding plate D, the lever G, rod F, and crank E, pivoted to the plate D, the whole being constructed and arranged to operate in the manner and for the purpose substantially as herein described.

In testimony whereof we do affix our signatures in presence of two witnesses.

THOMAS F. PYE.  
CHARLES D. FLINT.

Witnesses:

L. F. WILBUR,  
CHARLES E. ALLEN.