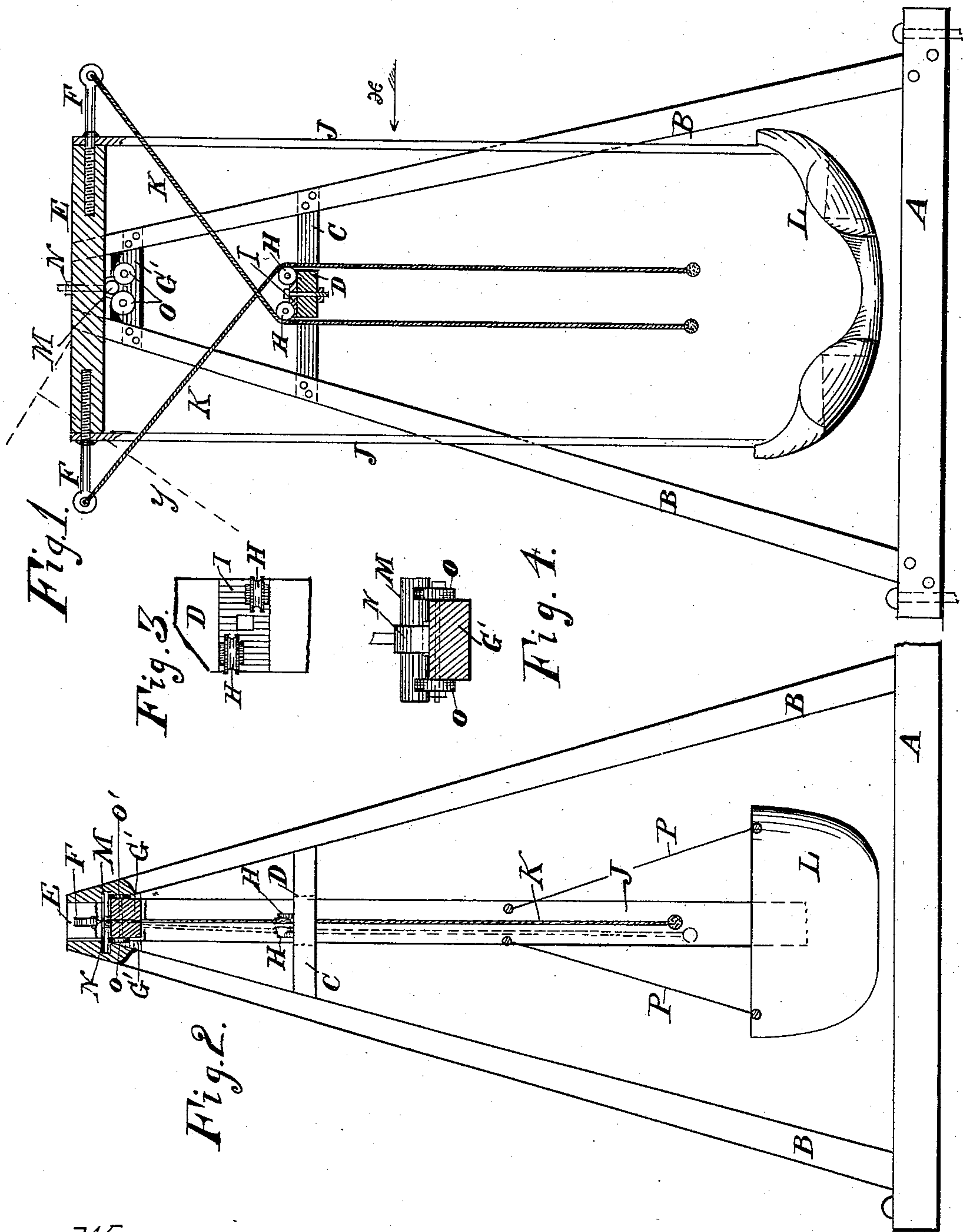


(No Model.)

M. CUSON.
SWING.

No. 488,602.

Patented Dec. 27, 1892.



Witnesses:

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Inventor.

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UNITED STATES PATENT OFFICE.

MICHEL CUSON, OF SPRING LAKE, MICHIGAN.

SWING.

SPECIFICATION forming part of Letters Patent No. 488,602, dated December 27, 1892.

Application filed July 8, 1892. Serial No. 439,355. (No model.)

To all whom it may concern:

Be it known that I, MICHEL CUSON, a citizen of the United States, residing at Spring Lake, in the county of Ottawa and State of Michigan, have invented new and useful Improvements in Swings, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1. is a view partly in side elevation and partly in section of a swing in which is embodied my invention. Fig. 2. a view partly in elevation and partly in section of Fig. 1 looking in the direction of dart α . Fig. 3. a plan or top view of the guide rollers over which the operating cords pass. Fig. 4. an enlarged view of a portion of the mechanism, at the top portion of the swing.

The purpose of my invention is to simplify the mechanism and the construction and especially the mechanism of a swing; whereby it may be more conveniently operated by the occupants; and at the same time make the swing safe as against accident.

The main frame consists of four sills A and substantially mounted thereon are four posts B; two sills however will serve the purpose when the swing is not designed to be portable. At a distance, as shown in the drawings, from the top of the swing is affixed, in a substantial manner, a cross piece C to each opposite set of posts B and B; and at mid length of these cross pieces is affixed by tenons, or otherwise, a connecting timber support D. On this support are securely attached two anti friction rollers H and H. sufficiently out of line with each other, to permit the operating cords K, K. to pass over the rollers without coming in contact. Any form of grooved rollers will serve a good purpose, but I find in practice that a plate I which is provided with bearings, or ears to support the pivots of the rollers H is more serviceable and requires but a single bolt fastening to attain the required permanency. Between the posts B, B near their top ends is rigidly secured a timber G' G', of any suitable dimensions to serve as a support for the anti friction rollers O, O, which are journaled therein as shown at Figs. 1 and 2, and practically serve as a support for the entire weight of the swing.

E represents what I term a tilting beam,

which operates between the two sets of posts B, B, and transversely to its under side is securely clamped a metal pivot shaft M by a suitable attachment N so that the shaft can have no motion independent of said beam. The shaft at its ends bears on two sets of anti friction rollers O, O; and as the latter are much larger in diameter than said shaft, the beam E can be tilted by a little force applied to either cord K.

L represents the carriage or basket which is suspended from the ends of the beam E by strips J of strong tough wood; metal however may be employed for this purpose, but danger from electrical currents should preclude such use. Where a single wide thin strip of wood J is employed to support each end of the carriage L the upper ends of such strips are secured respectively to the ends of the beam E by the eyebolts F, F, passing through them and into the ends of the beams as shown at Fig. 1. These bolts cannot become detached because the power applied acts as a thrust to hold them in. The swing can be operated by one, or two persons, and the person sitting in one end of the carriage by pulling on the cord K nearest to him will put the carriage backward and upward. This is not a swing for acrobats, but for the healthy exercise of children and invalids; its throw in one direction is therefore limited to the angle indicated by dotted lines γ . Should a greater plenitude of swing be required anti friction rollers will be required above the shaft M. Where only two depending supports J are employed to suspend the carriage L metal rod braces P P are employed, but should it be desirable to suspend the carriage by four strips J, two at each end of the carriage the tilting beam E will be made so much wider as required, and the posts B, at their upper ends, at Fig. 2, will stand farther apart. Such construction is simply a modification requiring no explanation.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States is—

An improvement in swings consisting of two pairs of frame supports inclined to each other at their top ends, and the opposing faces of each pair of posts near said ends formed vertically parallel to each other, in combina-

tion with a tilting beam having its side bear-
ings between said faces, a transverse shaft
secured to said beam, antifriction rollers sup-
porting said shaft, a carriage and suspend-
5 ing supports, and eye-bolts by which said sup-
ports are attached to the tilting beam, rollers
located between said beam and the carriage,
and cords attached to the eye-bolts, crossed

to the opposite rollers and brought near to
the carriage; substantially as and for the pur- to
pose specified.

MICHEL CUSON.

Witnesses:

G. L. CHAPIN,
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