

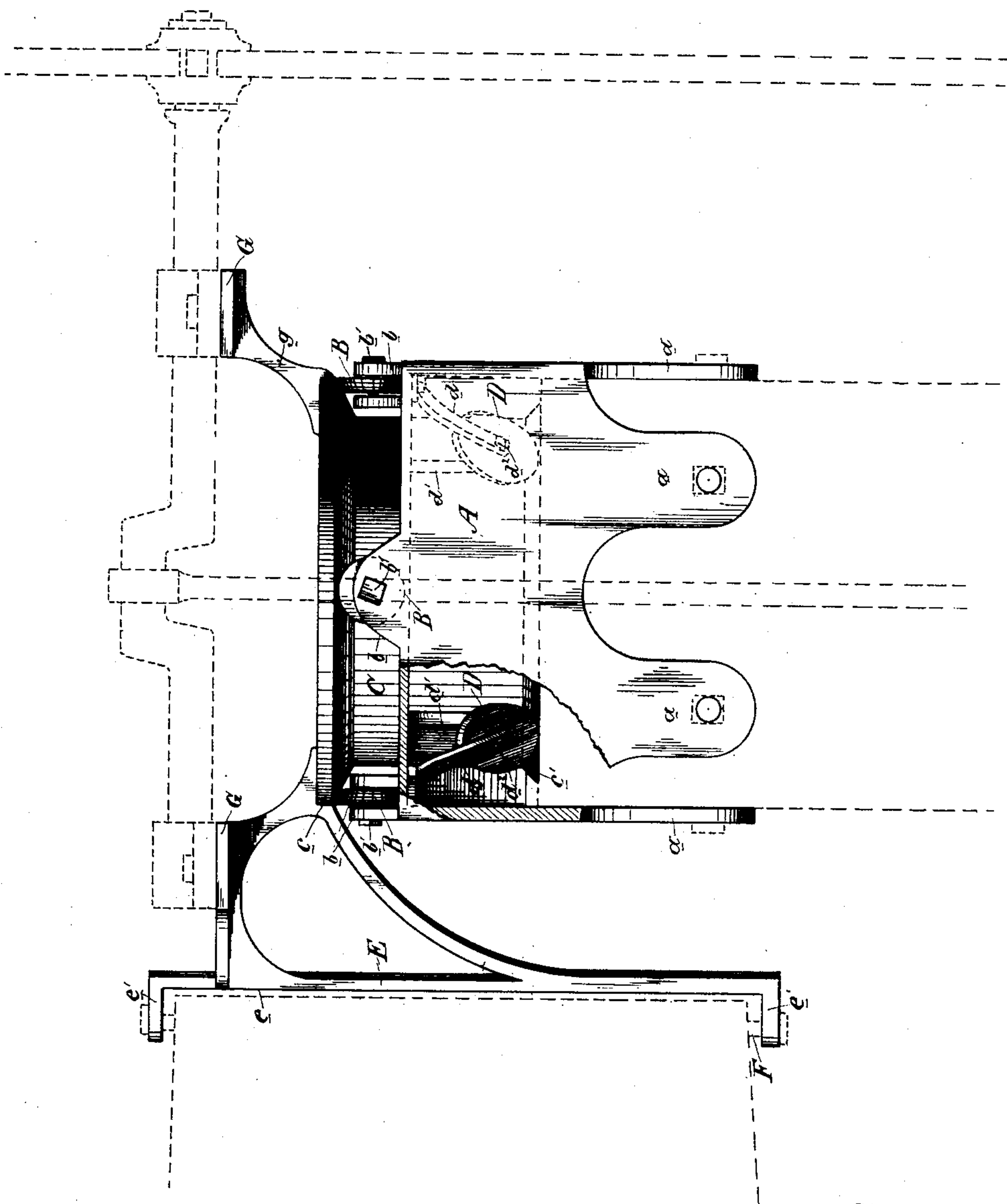
(No Model.)

J. T. CHINNICK.

WINDMILL HEAD.

No. 328,187.

Patented Oct. 13, 1885.



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UNITED STATES PATENT OFFICE.

JAMES THOMAS CHINNICK, OF ELK GROVE, CALIFORNIA.

WINDMILL-HEAD.

SPECIFICATION forming part of Letters Patent No. 328,187, dated October 13, 1885.

Application filed March 28, 1885. Serial No. 160,514. (No model.)

To all whom it may concern:

Be it known that I, JAMES THOMAS CHINNICK, of Elk Grove, county of Sacramento, and State of California, have invented an Improvement in Windmill-Heads; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful windmill-head; and it consists in a hollow perforated main head secured to the frame of the mill and carrying anti-friction rollers on its top and steadying-rollers below, a rotating tubular head fitted in the main head and having a top flange resting on the upper rollers and a bottom flange bearing against the lower rollers, a peculiar bracket secured to the rotating head and adapted to carry the regulating-vane, and plates or bars secured to the bracket and head for carrying the boxes of the crank-shaft.

It consists, further, in certain details of construction and arrangement, all of which I shall hereinafter fully explain.

The object of my invention is to provide a simple, effective, and inexpensive windmill-head.

Referring to the accompanying drawing, the figure is an elevation of my windmill-head, a portion of the wall of the fixed head being broken away to show the steadying-roller D.

A is the main or fixed head, consisting of a hollow perforated casting or piece provided with downwardly-extending legs *a*, by which it is bolted to the main frame of the mill.

On the top of the main head are journaled anti-friction rollers B, having inwardly-beveled faces. These are preferably four in number, and are mounted between slotted lugs *b* by means of short bolts *b'*.

C is the rotating head. This consists of a tubular piece having a top flange, *c*, with an inwardly-beveled lower face, and a bottom flange, *c'*, with an inwardly-beveled upper face. The head C is fitted within the perforated main head A, its beveled top flange, *c*, resting on the beveled anti-friction rollers B, by which it is supported, and on which it rotates. To steady and true said head I have the series of beveled-face rollers D under the top of and within the main head. The faces of these rollers bear upon the beveled face of the bottom flange, *c'*, of the rotating head.

The rollers D are mounted as follows: Bolted through the top of the main head are arms *d*, inclining downwardly and inwardly. Secured to or cast with and under the top of the main head are lugs or blocks *d'*, having faces beveled to the angle at which the rollers D are mounted. Bolts *d''* pass through the arms *d*, through the rollers D, and into the lugs *d'*, whereby the rollers are mounted. There may be of these rollers any suitable number to steady and true the head C.

To one side of the top of head C is secured a bracket, E, the vertical face *e* of which is provided with an arm, *e'*, top and bottom to receive a vertical bolt, F, upon which the regulating-vane is to be secured.

G are bars or plates upon which the boxes by which the crank-shaft is carried are to be mounted. One of these bars is secured to the top of bracket E, while the other is secured to the head C by means of an arm, *g*.

The other parts of the mill I show in dotted lines merely to indicate their position with relation to the head. This head, it will be observed, is simple and inexpensive in construction and effective in operation, as the rotating head C is so mounted as to encounter the least amount of friction and to work perfectly steady and true.

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

1. The combination, with the perforated main head A, secured to the frame of the mill, of the beveled-face anti-friction rollers B and the rotating tubular head C, fitted in the main head, and having a beveled top flange, *c*, resting on the rollers, and the slotted standards *b*, in which the rollers are mounted, substantially as herein described.

2. The perforated main head A, secured to the frame of the mill and having beveled-face anti-friction rollers B on its top, in combination with the rotating tubular head C, fitted in the main head and having a top flange, *c*, resting on rollers B, and one or more steadying-rollers set at an angle under the top of the main head and bearing against the lower portion of the rotating head, and the arms or hangers *d d'*, whereby said head is guided and trued, substantially as herein described.

3. The hollow perforated main head A, hav-

ing beveled-face lugs d' and inclined arms d secured under its top, and the inclined rollers D, mounted between the lugs and arms by bolts d^2 , in combination with the rotating tubular head C, mounted within the head A and resting on rollers above, said head having a bottom flange, c' , bearing against rollers D, substantially as herein described.

4. A windmill-head comprising the hollow perforated main head A, having legs a , by which it is bolted to the frame of the mill, the beveled anti-friction rollers B on its top, and the inclined beveled rollers D below, the rotating tubular head C, fitted in the main head

and having beveled top and bottom flanges, c c' , resting on and bearing against the rollers B D, respectively, the vane-bracket E, secured to the top of head C, and the bars or plates G for the boxes of the crank-shaft, one bar being secured on the bracket and the other to the head C, substantially as herein described.

In witness whereof I have hereunto set my hand.

JAMES THOMAS CHINNICK.

Witnesses:

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