

JOSEPH B. HALL.

Improvement in Millstone Elevators.

No. 115,844.

Patented June 13, 1871.

Fig. 1.

Fig. 2.

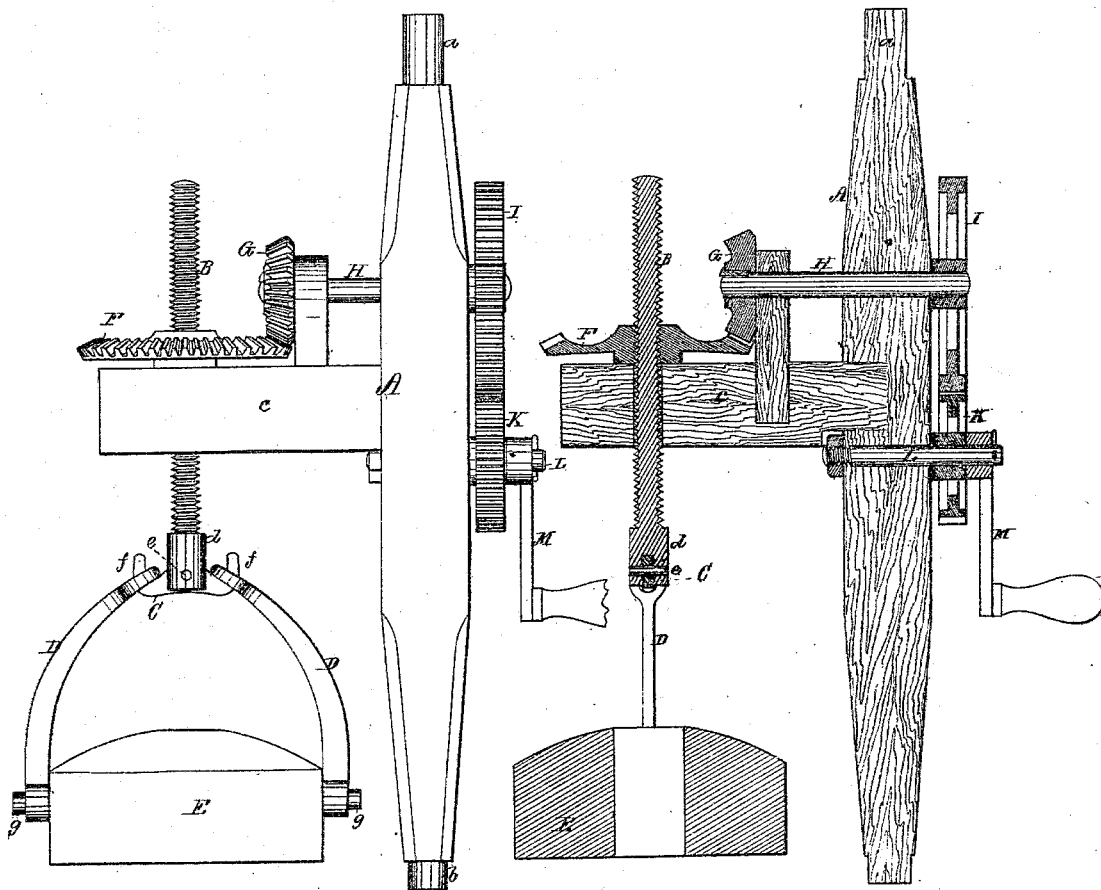
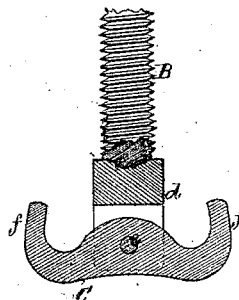


Fig. 3.



Witnesses.

S. N. Piper

L. N. Moore

J. B. Hall.

by his attorney.

N. H. May

# UNITED STATES PATENT OFFICE.

JOSEPH B. HALL, OF LEBANON, NEW HAMPSHIRE.

## IMPROVEMENT IN MILLSTONE-ELEVATORS.

Specification forming part of Letters Patent No. 115,844, dated June 13, 1871.

*To all persons to whom these presents may come:*

Be it known that I, JOSEPH B. HALL, of Lebanon, of the county of Grafton, of the State of New Hampshire, have invented an Improved Millstone-Elevator; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a side elevation, and Fig. 2 is a vertical section of it as applied to a millstone. Fig. 3 is a transverse section of the lower part or forked head of the screw and its duplex-pronged hook.

In such drawing, A denotes a crane, which, when in use, is to have its pivots *a b* supported in proper boxes or bearings, with the crane standing upright. There extends up through the arm *c* of the crane a screw, *b*, whose lower end terminates in a furcated head, *d*, between the prongs of which there is arranged, in a manner as shown, a duplex-pronged hook, C, which, at its middle, is pivoted to the prongs of the head by a joint-pin, *e*, going through it and such prongs, the same being so as to allow the said part C to readily turn or tilt within the head. Two curved arms, D D, having eyes at their ends, are hitched upon the prongs *ff* of the duplex hoop, and also upon journals or pins, *g g*, extending diametrically from the millstone E. The screw B, after passing through the arm of the crane, screws into and through the hub of a beveled gear, F, arranged and resting on the said arm. A beveled pinion, G, engages with the gear F, and is fixed to the inner end of a shaft, H, arranged in the crane in manner as shown, and provided at its opposite end with a spur-gear, I, to engage with a driving-pinion, K, which is disposed on a stationary journal, L, and provided with a crank, M, all being as represented. The duplex hook applied to the screw-head, as described, by being movable on its fulcrum or joint pin, facilitates the fixation of the arms to it and the pins of the stone, and, besides, enables the stone to be tipped or moved laterally in the plane of its supports, as occasion may require.

The millstone-crane, made as described, is a very efficient means of handling a millstone with reference to its bed-stone, the raising or lowering of the stone being accomplished by putting the larger bevel-gear in revolution by power applied to the crank of the spur-pinion.

I am aware of the millstone-elevator described in United States patent No. 37,732, and make no claim thereto.

My elevator differs from it in having the shaft H of its bevel-pinion carried through the post of the crane A, and provided with a train of spur-gears, I K, for revolving such shaft, the lower of such gears being pivoted on a shaft, L, and provided with a crank, M.

By my arrangement of the mechanism for revolving the bevel-pinion, such can be done by a person while standing at the crane-post, in whatever position the arm of the post may be within its circuit of motion, the person also being able to move the crane around, as occasion may require, without materially changing his position; whereas, when the crank is applied to the shaft of the bevel-pinion, and is arranged at the outer end of the arm of the crane, a train of spur-gears cannot be employed to aid in effecting the rotary movement of the bevel-pinion, and the operator has to stand on the stone, and, as a consequence, is obliged to raise his own weight with that of the stone, and cannot move the crane around without getting off the stone.

I do not claim the millstone-elevator of M. M. Brackhart, patented February 24, 1863; but

What I do claim as my invention is—

The improved arrangement of the devices herein shown, consisting of the crane-post A, the gears I K, crank M, shaft H, the bevel-gears G F, and screw B, all constructed, arranged, and operated substantially as shown and described, for the purpose set forth.

JOSEPH B. HALL.

Witnesses:

R. H. EDDY,  
J. R. SNOW.