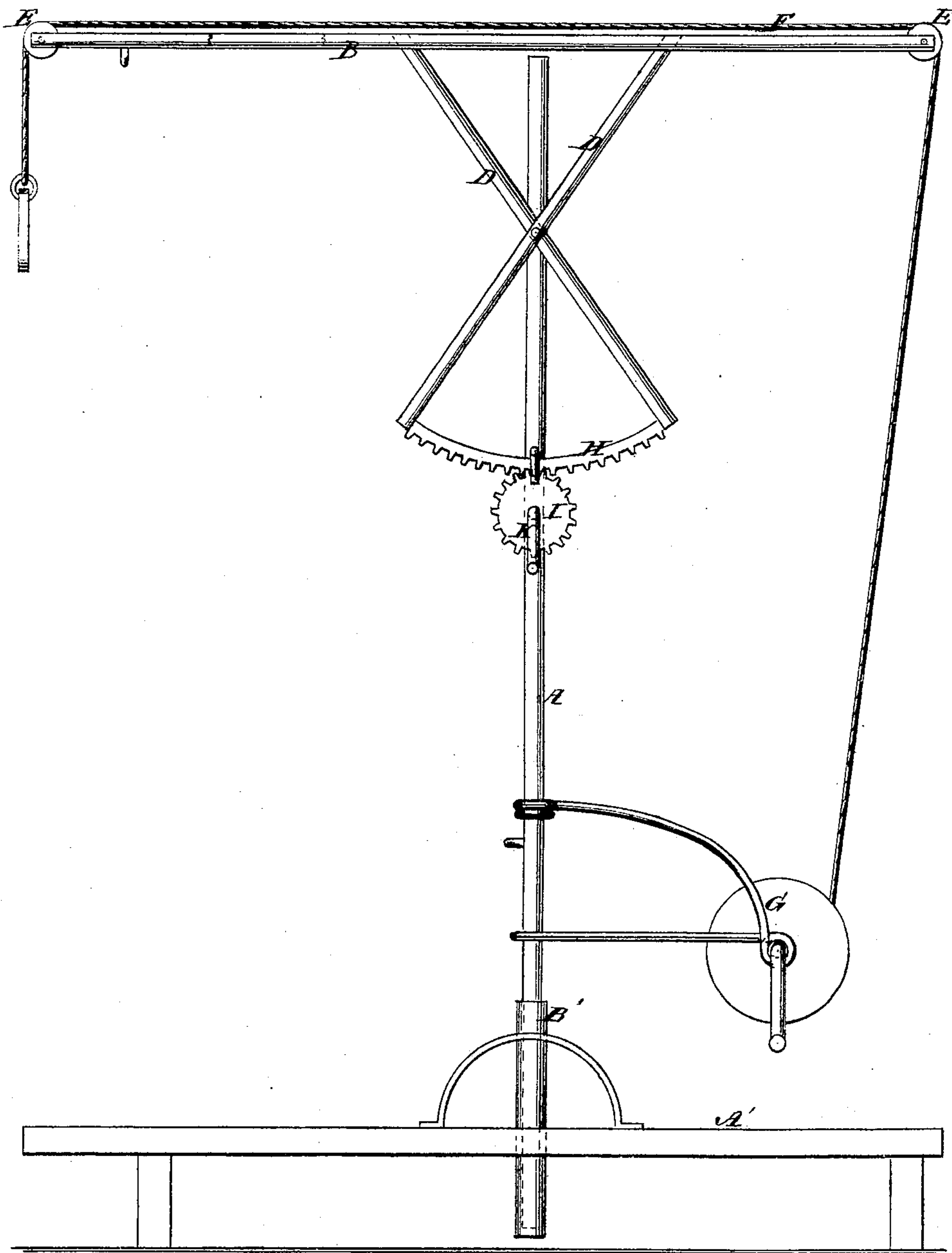


G. HUNZIKER.

Improvement in Cranes:

No. 129,282.

Patented July 16, 1872.



Witnesses:

E. Wolff
H. A. Graham.

Inventor:

G. Hungerford

PER

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UNITED STATES PATENT OFFICE.

GASPAR HUNZIKER, OF SUMMIT, MISSISSIPPI.

IMPROVEMENT IN CRANES.

Specification forming part of Letters Patent No. 129,282, dated July 16, 1872.

Specification describing a new and Improved Crane, invented by GASPAR HUNZIKER, of Summit, in the county of Pike and State of Mississippi.

My improvement consists in pivoting the horizontal crane-arm to a vertical shaft below its plane by arms, or a frame extending below the pivot and terminating in a toothed segment, with which a crank-shaft and pinion are connected.

The drawing is a side elevation of my improved crane.

A is the vertical shaft, which is mounted in any suitable manner to support heavy weights from the top and turn on its axis in the manner of ordinary cranes, or it may be mounted on a portable platform, A', in a tube, B', extending above and below said platform. B is the horizontal arm on which the weights are to be swung. It is pivoted to the shaft A at C by the arms D, and extends nearly the same distance each way from said shaft. At each end is a grooved roller, E, and the hoisting-rope F hangs from one end for engaging the weight, and passes over the other end down to the drum G to be wound on and off for hoisting and lowering. This drum is mounted on arms projecting from shaft A, and turns with it. The arms D extend considerably below the pivot C, and have a toothed segment,

H, attached to the lower ends, with which segment a small toothed pinion, I, on a crank-shaft, K, gears.

The loads are raised by the drum and cord, the crank-shaft K being locked fast. In this case the loads are balanced on the upper part of the shaft, or nearly so, by the extension of the arm B across the top of the shaft, and the extension of the rope from the end opposite the weight down to the drum, so that the side draft on the vertical shaft, common to ordinary cranes, is mostly obviated. The horizontal arm B is shifted forward and back by the segment-pinion and crank-shaft to adjust it to the work in hand, and the end from which the weight is suspended is raised or lowered, as circumstances may require.

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

The arms B, pivoted to the vertical shaft by the arms D in the manner described, the said arms D provided with the segmental toothed wheel H, and the latter geared with the pinion and crank-shaft, all substantially as specified.

GASPAR HUNZIKER.

Witnesses:

G. T. BUNCH,
C. APPEL.