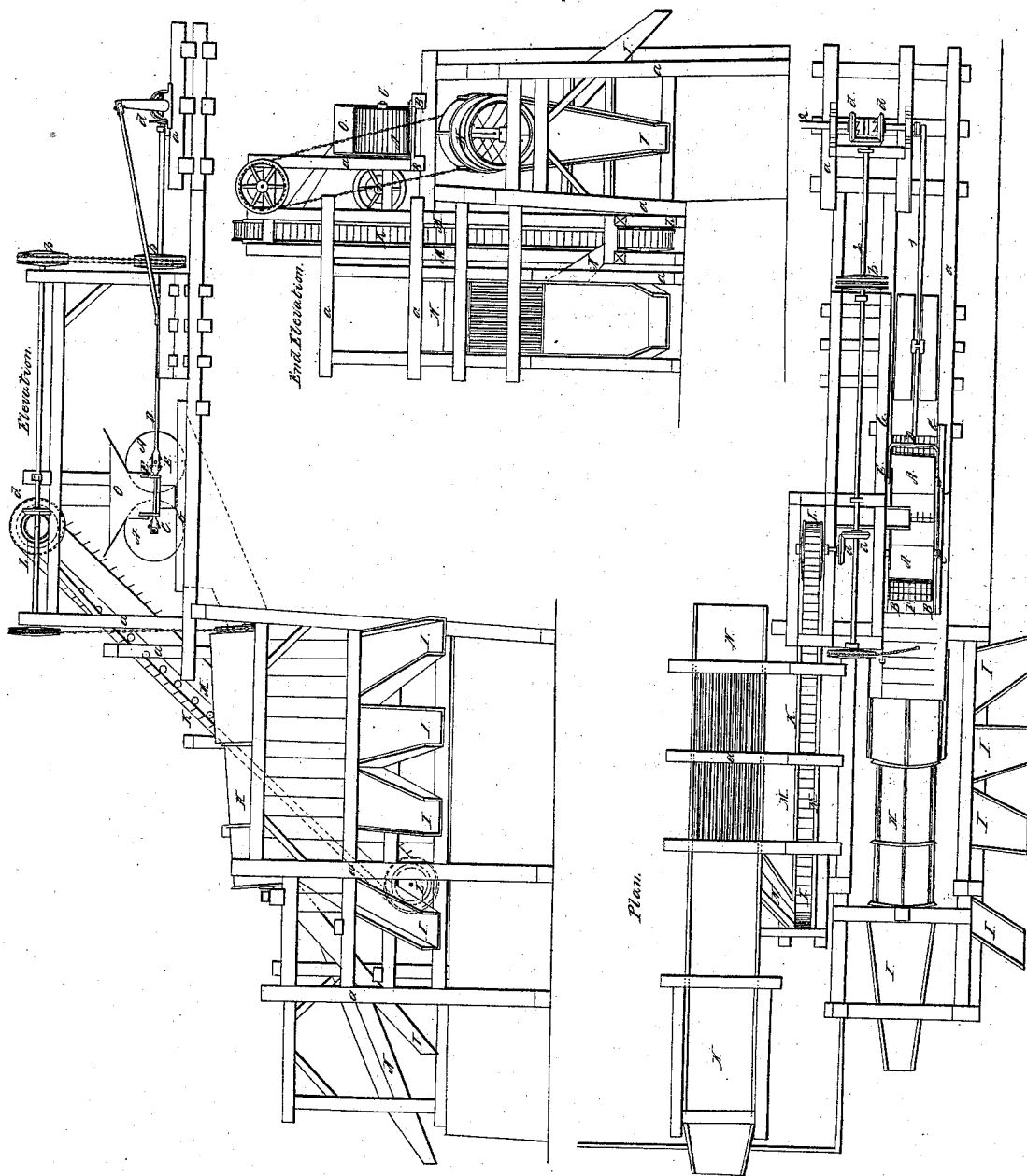


*H. Thomas,*  
*Coal Breaker,*

*Nº 3,368,*

*Patented Dec. 5, 1843.*



# UNITED STATES PATENT OFFICE.

HOPKIN THOMAS, OF BEAVER MEADOW, PENNSYLVANIA.

## MACHINE FOR BREAKING AND SCREENING COAL.

Specification of Letters Patent No. 3,368, dated December 5, 1843.

*To all whom it may concern:*

Be it known that I, HOPKIN THOMAS, of Beaver Meadow, in the county of Carbon and State of Pennsylvania, have invented a new and useful Machine for Breaking Anthracite and Bituminous Coal into the Various Sizes Required for Domestic and other Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawing of the same, making part of this specification.

The nature of my invention consists in using one or more iron rollers, of any given dimensions and weights sufficient to crush the coal, in combination with a grated platform—said roller or rollers being connected by means of an iron yoke and rod, to steam engine or any other suitable moving power, which will give it or them a reciprocating motion over an iron grated platform, through which the coal is forced by the weight of the roller or rollers. Also in combining the aforesaid breaking machine with an elevator or carrier, to convey the coal to the breaking machine, and the combination of the breaking machine, with a revolving screen and chute or conductors, to convey the coal to any mode of transportation.

To enable others skilled, in the arts to make and use my invention, I will proceed to describe its construction and operation.

I construct my rollers A, A, from cast or wrought iron or other suitable material with the periphery fluted, except a portion at each end, which I leave smooth to roll on the wrought iron bars or rails B, B, through the center of which roller, I place a shaft C, which connects to the moving power, by means of a yoke D, made of wrought iron with bearings constructed in any of the known forms. When I use two or more rollers, for the purpose of breaking large lumps of coal, I construct my yoke D, with a joint E or with guides to the bearings that each roller may rise and fall with freedom, the forward roller breaking up the lumps, the latter forcing them through the grated platform F. I place an iron guide G, at each

end of the roller or rollers, of sufficient height to keep them moving in a direct line on the grated platform F, under which I construct a chute or conductor, at a sufficient inclination to allow the broken coal to run by gravity into the revolving screen H, constructed in any of the known forms by which I cleanse the coal from dust and separate the various sizes passing each size separately by means of the chutes I I I I I, into rail road cars or any other mode of conveyance. I also construct a carrier or elevator K, with endless flat iron chains, covered with strips of flue or sheet iron, passing around the drums L L. The space between the drums L L, I support by small rollers, the journals of which, I insert in the sides of the box M, through which the carrier moves and conveys the coal from the chute N, where it is deposited by mine cars or other means, and empties it into the hopper O, and by it is conveyed to the grated platform F. I produce from the same moving power, and by any of the known methods, a rotary motion to the revolving screen H, and the carrier K, which rotary motion acts in concert with the reciprocating motion of the coal breaker, A.

What I claim as my invention in the above described machine is—

The combination of the vibrating rollers with the iron bars or rail or perforated bed through which the coals are forced by the rollers for the purpose of breaking anthracite or bituminous coal, as above described, also the combination of the elevator or carrier with the breaking machine constructed as herein described by which means the coal can be regularly delivered into the machine; and the combination of the breaking machine constructed as described with the revolving screen and chutes, by means of which the coal is cleansed from dust; the various sizes separated, and loaded into any mode of conveyance.

HOPKIN THOMAS.

Witnesses:

HENRY VANNAN,  
A. W. PRATT.