

G. Martz,
Coal Screen.

N^o 12,486.

Patented Mar. 6, 1855.

Fig. 1.

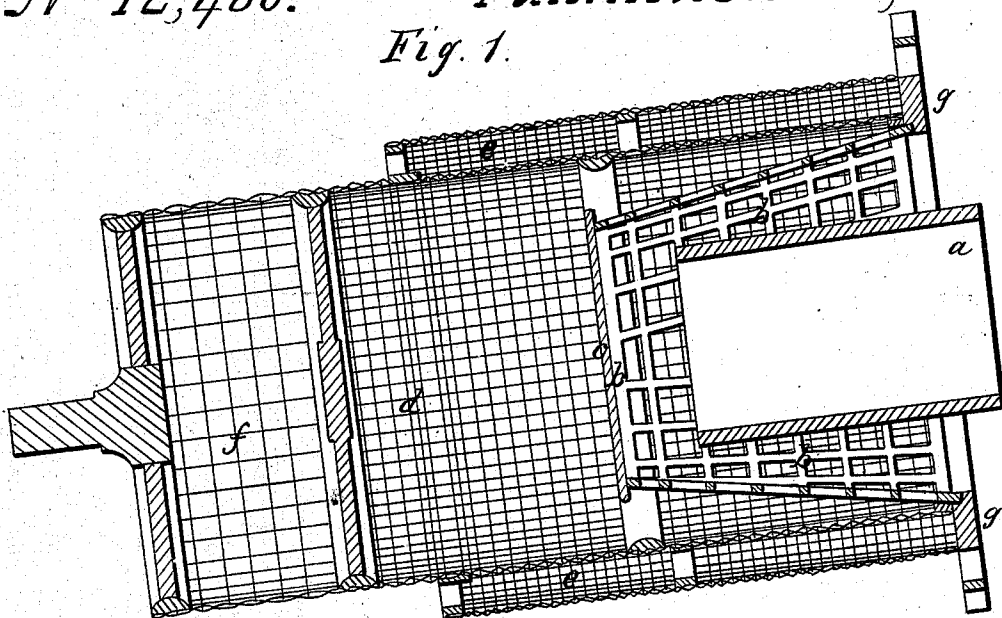
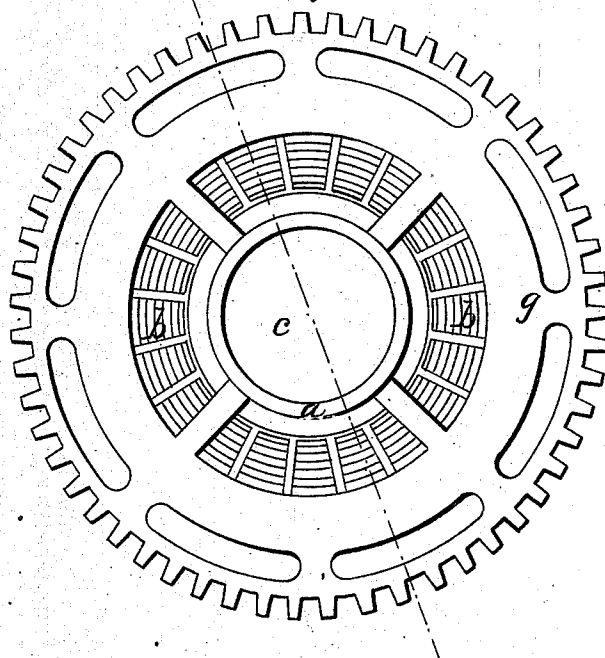


Fig. 2.



UNITED STATES PATENT OFFICE.

GEORGE MARTZ, OF POTTSVILLE, PENNSYLVANIA.

COAL-SCREEN.

Specification of Letters Patent No. 12,486, dated March 6, 1855.

To all whom it may concern:

Be it known that I, GEORGE MARTZ, of Pottsville, in the county of Schuylkill and State of Pennsylvania, have invented a new and useful Improvement in Coal-Screens; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

10 The screens heretofore used for separating the different sizes of coal from each other and from the coal dust, have been constructed in such a manner that the coarsest coal has to pass over the entire surface of the finer portion of the screen, and be the last discharged therefrom. The objection to this arrangement is, that the finer portions of the screen are injured and soon destroyed by the action of the coarsest and heaviest portions of the coal in passing over them. This injurious action is prevented by my improvement upon the compound coal screen.

My improvement consists in combining 25 the coarse meshed conical screen *b*, and conducting tube *a*, with a rearward discharging coal screen in such a manner that the said conical screen will receive the coal to be screened at its rear end, and allow all but the coarsest portion thereof to pass through its meshes into the rearward discharging screen, while it conducts the said coarsest portion of the coal forward and discharges the same at its mouth.

35 The mouth, or front end of the conical screen *b*, and also the front ends of the rearward discharging portions *d, e*, of the screen, are secured to flanches which project rearward from the cog wheel *g*.

40 The rear end of the conical screen *b*, is secured to the disk *c*, and the said disk *c*,

is connected by means of radiating arms to the screen supporting band *h*.

The screen *b*, tapers to such a degree that its lower side inclines forward from a horizontal line, the same degree that the rearward discharging portions of the screen incline toward the rear. The meshes of the said conical screen, are of such a size that they will arrest the coarsest portion of the coal and discharge it at the front of the screen; while all the finer coal will pass through the meshes of the conical screen into the rearward discharging portions of the screen, and by them be conducted to the rear, and each size be separated from the others and be deposited in separate receptacles in the usual manner. The conducting tube *a*, is connected to the arms *i, i*, of the cog wheel *g*, and its sides are parallel with the sides of the rearward conducting portions *d, e*, of the screen. The rearward conducting portions of the screen may be arranged and supported in any usual manner.

What I claim as my invention and desire to secure by Letters Patent, is—

The within described improvement in coal screens, by which the coarsest coal is separated from the finer sorts and discharged at the mouth of the screen, while the finer sorts of coal are carried forward and separated the one from the other in the usual manner.

The above specification of my new and useful improvement in coal screens signed and witnessed this 20th day of January 1855.

GEORGE MARTZ.

Witnesses:

GEO. W. ADAMS,
Z. C. ROBBINS.