

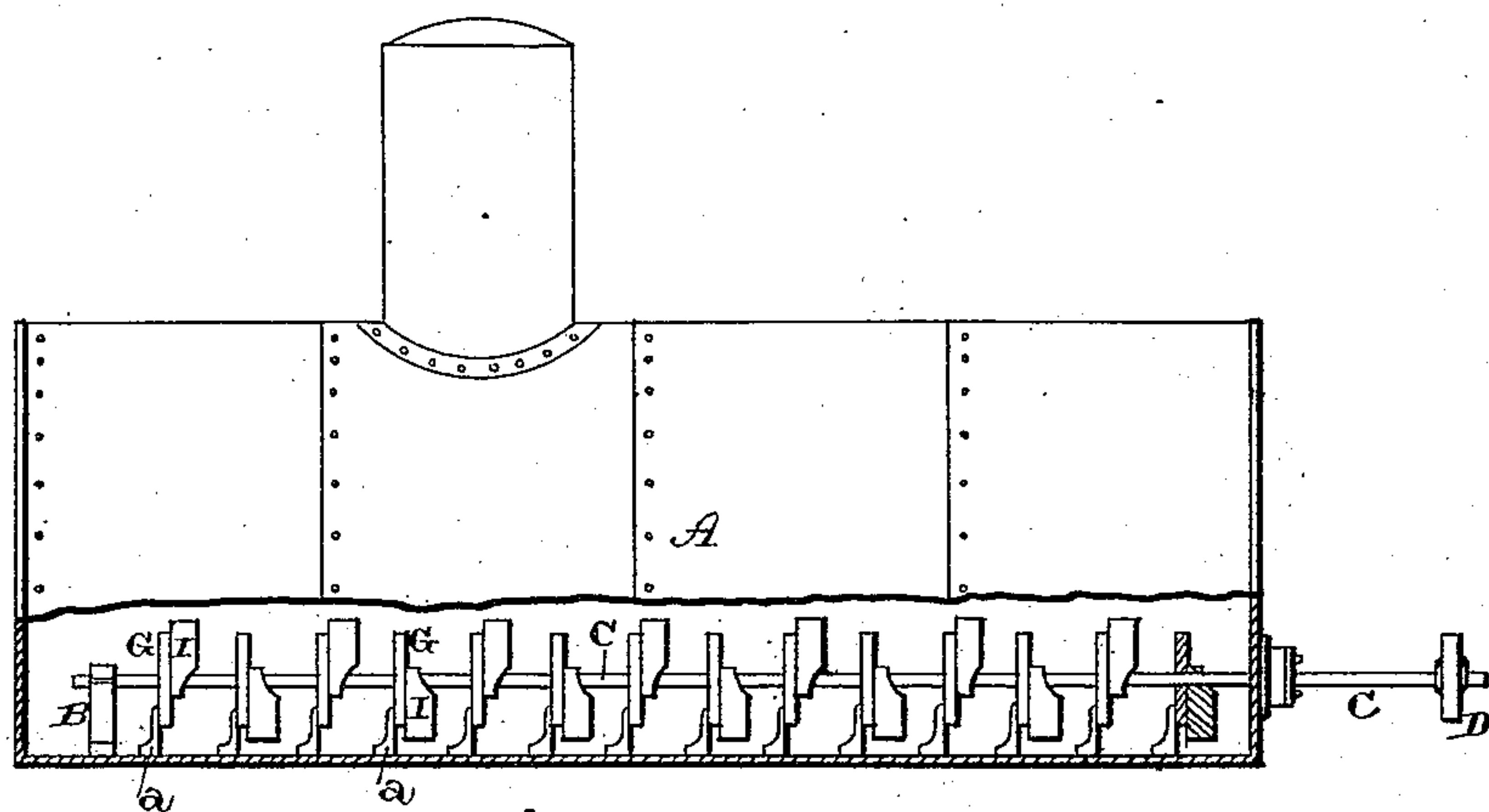
(No Model.)

H. B. MEECH.

AGITATOR FOR STEAM BOILERS.

No. 334,182.

Patented Jan. 12, 1886.



—WITNESSES.—

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# UNITED STATES PATENT OFFICE.

HARRISON B. MEECH, OF CLEVELAND, OHIO.

## AGITATOR FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 334,182, dated January 12, 1886.

Application filed December 29, 1884. Serial No. 151,487. (No model.)

*To all whom it may concern:*

Be it known that I, HARRISON B. MEECH, of the city of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Agitators for Steam-Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which form part of this specification.

My invention relates to an improvement in agitators for steam-boilers; and it consists in a suitable revolving mechanism or device, which is placed in the bottom of the boiler and made to revolve by means of any suitable power outside of the boiler, in combination with stationary friction-plates, which are secured to the bottom of the boiler, and against which the revolving mechanism or device rubs, as it is made to revolve, for the purpose of generating electricity, as will be more fully described hereinafter.

The object of my invention is to place a mechanical agitator in the boiler, for the purpose of keeping all the sediment or deposit constantly stirred up, to agitate and keep in constant circulation all of the water in the boiler, to generate electricity, and to enable steam to be generated more rapidly and easily without the use of any additional fuel.

The accompanying drawing represents a side elevation of a mechanism embodying my invention.

A represents a steam-boiler of any desired construction, to the inside bottom of which at one end is secured the bearing B. Journaled in this bearing and the opposite end of the boiler is the shaft C, the outer end of which has the pulley D secured to it, so as to receive power from any suitable source, for the purpose of causing the shaft to rapidly revolve. Secured to this shaft so as to revolve with it is a series of stirrers or agitators, I, which serve to agitate and stir up both the water in

the boiler and the sediment in the water, and thus prevent the sediment from settling and caking upon the bottom of the boiler. Also, secured to the bottom of the boiler by means of the supports *a* are the frictional plates G, against which the stirrers rub or bear as they are made to revolve, for the purpose of generating frictional electricity for the purpose of decomposing the water, and thus assisting in the generation of steam. These plates G are perforated at their centers, so as to allow the shaft C to pass through them, and thus keep the stirrers I and the plates always in contact. When the shaft is set in motion, the devices connected thereto at once set the water in motion, and this motion produces the following effects: First, the water being kept constantly in motion while the boiler is in use, the sediment in the water is never allowed to settle and be burned into the boiler or form scale; second, the water, being constantly stirred up, is kept evenly heated throughout, and the molecules of the water pass quickly into steam, and thus avoid the generation of explosive gases; third, the water being constantly agitated, its molecules are easily converted into steam, thus requiring less fuel to produce the same amount of steam than where the water is not agitated; fourth, by the generation of electricity the water is decomposed, and thus the generation of steam greatly quickened.

Having thus described my invention, I claim—

In a mechanism for agitating the water in steam-boilers, the combination of the revolving shaft, the stirrers secured thereto, and the frictional plates secured to the boiler for the stirrers to rub against, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HARRISON B. MEECH.

Witnesses:

FRANCIS J. WING,  
GEO. C. WING.