No. 659,200. Patented Oct. 9, 1900.

# T. ASENCIO.

## FUEL FEEDING ATTACHMENT.

(Application filed Apr. 27, 1900.)

(No Model.)

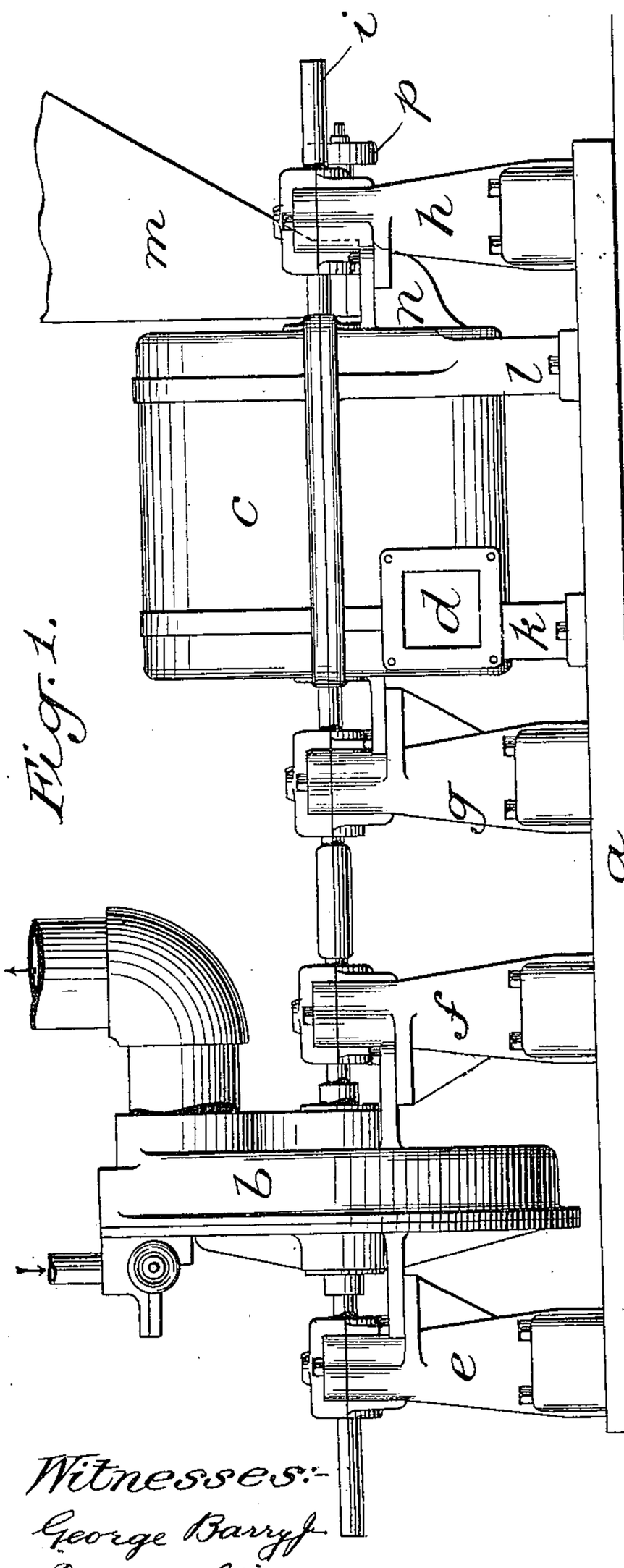


Fig. 1.

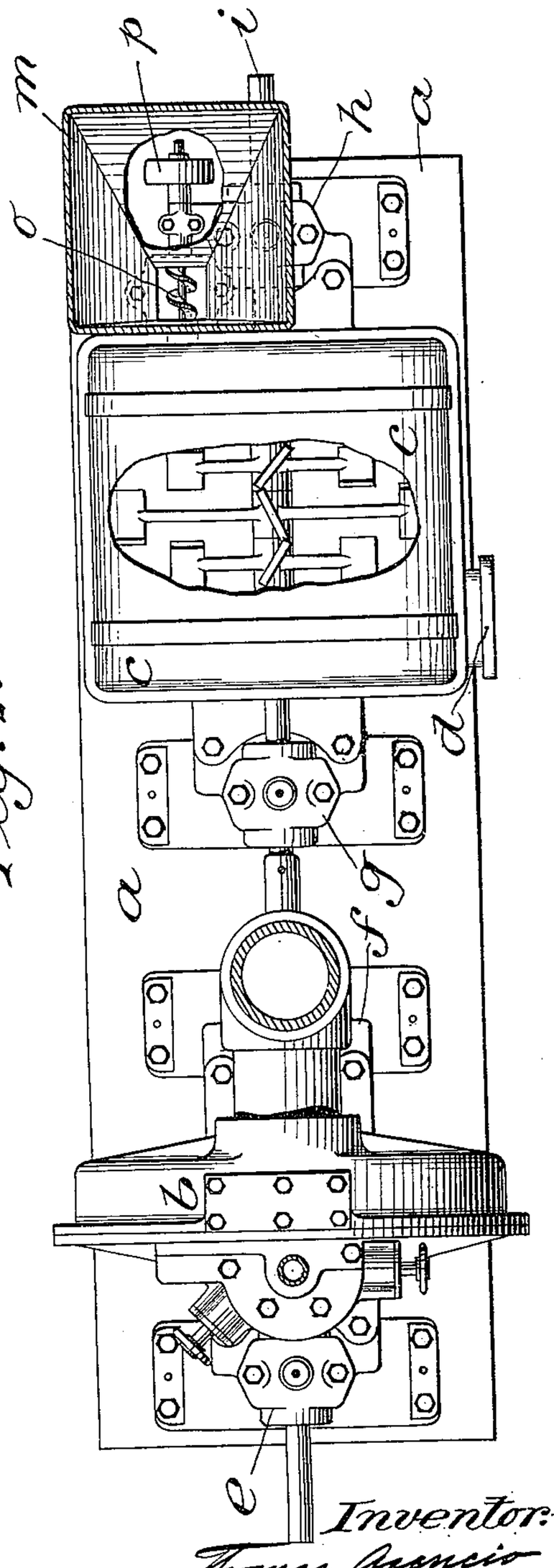


Fig. 2.

Witnesses:-
George Barry Jr.
Edward Kieser.

Inventor:-
Thomas Asencio
By Brown Seward
his Attorneys

# UNITED STATES PATENT OFFICE.

THOMAS ASENCIO, OF NEW YORK, N. Y., ASSIGNOR TO ALFRED P. BOLLER, OF SAME PLACE.

## FUEL-FEEDING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 659,200, dated October 9, 1900.

Application filed April 27, 1900. Serial No. 14,530. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS ASENCIO, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Fuel-Feeding Attachment, of which the following is a specification.

My invention relates to an attachment for feeding fuel in a pulverized or powdered state to steam-boiler and other furnaces.

The object is to provide a feeding device which is complete in itself and which may be made and sold as an article of manufacture in sizes to suit the different demands for furnaces, either stationary or locomotive.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of the attachment in side elevation; and Fig. 2 is a top plan view, the hopper and the pulverizer-casing being broken away to show the screw feed and rotary beaters and blower.

*a* represents a base common to a rotary motor, a rotary pulverizer, a feed-hopper, and means for forcing the material from the hopper into the pulverizer.

*b* represents a rotary motor of any well-known or approved form—in the present instance a steam-turbine. As my invention does not relate specifically to the particular form of rotary motor, the same is indicated only in elevation and top plan and will be recognized as a form in common use. In like manner *c* represents a pulverizer of any well-known or approved form, the form here indicated being that in which the coal is beaten into a pulverized or floured condition by rotary beaters, which have their blades so set as to force the matter from the feed end of the pulverizer to the discharge end *d* of the same. The pulverizer *c* also acts either alone or in connection with a blower located therein to produce an air-blast outwardly through this discharge-opening *d* to blow the pulverized or powdered material into the furnace.

The arrangement for pulverizing and blowing the material does not specifically form a part of my present application and is therefore only represented in side elevation and top plan.

From the common base *a* uprise supporting-standards *e f g h*, in the tops of which standards a shaft *i* is journaled, the said shaft *i* being common to the rotary motor and to the rotary beaters and the rotary blower, (represented as the pulverizer *c*.)

The casing within which the rotary beaters and rotary blower of the pulverizer are located is supported from the common base *a* by means of legs *k l*.

The hopper *m*, which directs the coal to the pulverizer, is supported on a bracket *n*, attached to the end of the pulverizer-casing, and a feeding device—in the present instance a screw-feed *o*, located at the base of the hopper and driven by means of a pulley *p* from a source of power not shown—serves to force the coal at a uniform rate into position to be engaged by the beaters of the pulverizer.

The gist of my invention lies in the combination of a motor, pulverizer, and blower in such compact form and so corelated in capacity and operation that an attachment of a given capacity will furnish the necessary and uniform amount of fuel elements (powdered coal and air) required for any particular furnace, thus obviating the difficulties hitherto experienced in attempting to secure the proper feed by setting up the pulverizer, blower, and motor, one or more of them, independently of the other or others.

My present attachment, being made in the proper proportions and simplified by placing the several important parts on a common shaft, the whole supported upon a common base, so that it may be shipped intact, assures perfect action, the only requirement from the purchaser being the size of furnace or amount of steam required to be generated.

What I claim is—

An attachment for steam-boiler and other furnaces comprising a rotary motor and a rotary pulverizer and blower arranged to be actuated by the motor, the said motor, pul-

verizer and blower having a common shaft and being so correlated in capacity and operation that an attachment of a given capacity will furnish the necessary and uniform amount of fuel elements required for any particular furnace.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 24th day of April, 1900.

THOMAS ASENCIO.

Witnesses:

FREDK. HAYNES,

EDWARD VISER.