

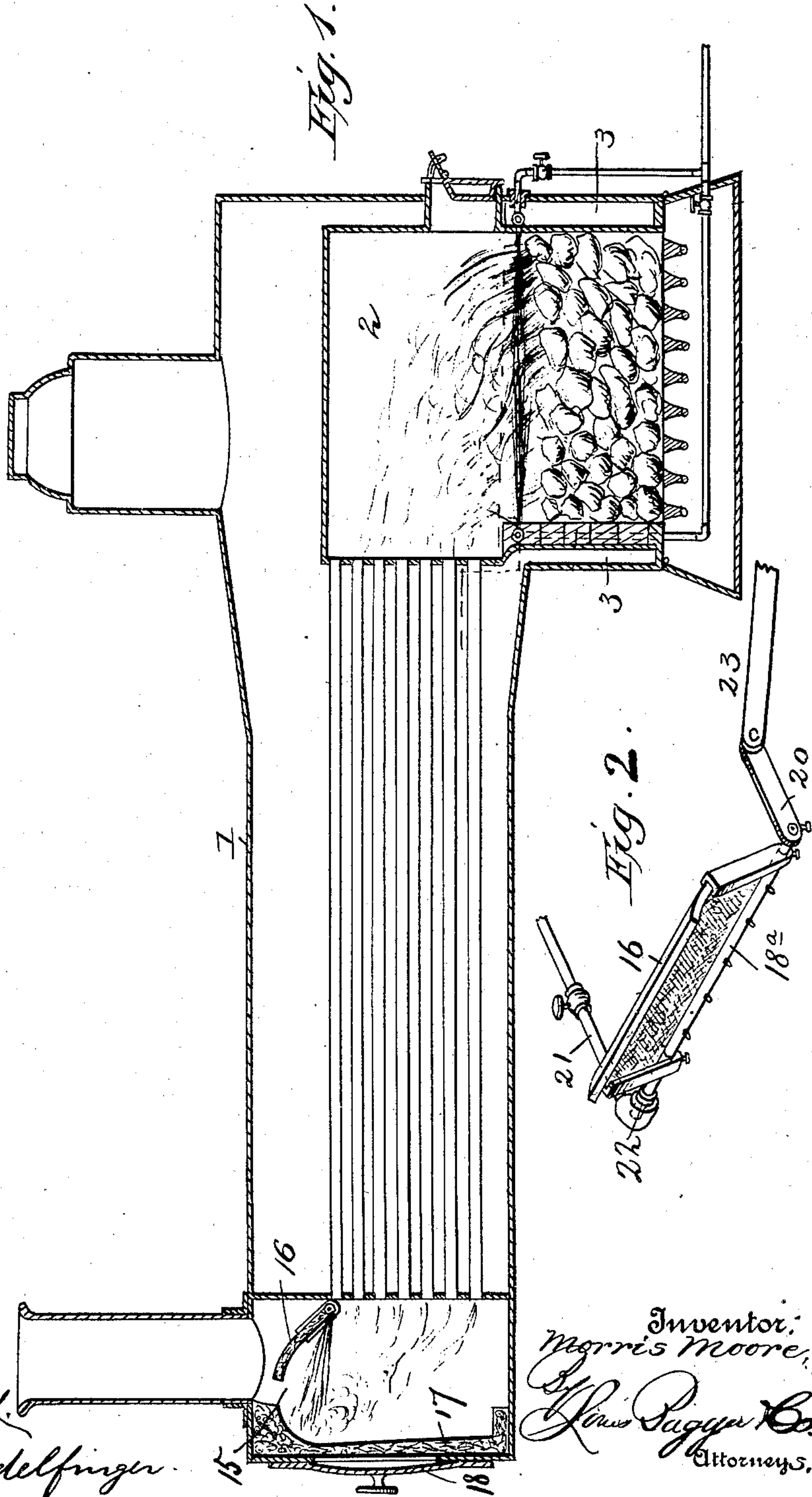
No. 683,315.

Patented Sept. 24, 1901.

M. MOORE.
SPARK ARRESTER.

(Application filed Mar. 26, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

MORRIS MOORE, OF DANVILLE, VIRGINIA.

SPARK-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 683,315, dated September 24, 1901.

Application filed March 26, 1901. Serial No. 52,966. (No model.)

To all whom it may concern:

Be it known that I, MORRIS MOORE, a citizen of the United States, residing at Danville, in the county of Pittsylvania and State of Virginia, have invented new and useful Improvements in Spark-Arresters, of which the following is a specification.

My invention relates to spark-arresters for locomotives or stationary and portable engines, and has for its object to reduce the percentage of soot and live cinders in the issuing smoke. These objects and advantages are attained by the simple and novel construction described in this specification and claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a vertical longitudinal section taken through a boiler equipped with my improvements. Fig. 2 is a detail perspective of the adjustable deflector.

Like numerals of reference designate like parts in both views of the drawings.

The numeral 1 designates a steam-boiler having a fire-box 2, which is provided with a water-jacket 3.

My spark-arrester is mounted in the smoke-box 15 of the engine. This device comprises an adjustable asbestos deflector 16 and a concave stationary asbestos deflector 17, mounted in the inner side of the door 18 of the smoke-box 15. The deflector 16 is concave on its lower side and is mounted on a perforated pipe 18^a, which forms an axis. This pipe is capped on one end at 19 and fitted with a crank-arm 20, while the other end is open and has a steam-pipe 21 connected thereto by means of a slip-joint 22. The crank-arm 20 is connected to a rod 23, which extends back to the cab in the case of a locomotive and enables the engineer to set the deflector 16. The stationary deflector 17 is concave and operates to direct the smoke within reach of the deflector 16, which, aided by the steam-spray, catches and smothers all of the burning sparks. By this arrangement any sparks

which pass out of the furnace 1 and find their way into the smoke-box 15 will first strike the stationary deflector 17 and be deflected against the deflector 16 and be smothered by the spray from the pipe 18^a. The deflector 16 can be set at any angle by means of the rod 23.

I do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

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

1. In combination with a smoke-box, of a concave deflector mounted in the door of said smoke-box and an adjustable deflector mounted on a horizontal axis and located to act in combination with said stationary deflector to stop sparks.

2. In combination with a smoke-box provided with a smoke-stack, of a stationary deflector mounted in the forward end of said smoke-box, a spray-pipe traversing said smoke-box, and a deflector adjustably mounted on said spray-pipe and located to act in combination with said stationary deflector, substantially as described.

3. In combination with a smoke-box connected to a stack of a concave deflector mounted in the forward end of said smoke-box, a perforated spray-pipe extending transversely said smoke-box, of a concave deflector adjustably mounted on said spray-pipe, and located to act in combination with said concave deflector to stop sparks, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MORRIS MOORE.

Witnesses:

FRANK G. RADELFINGER,
AUGUST PETERSON.