

A. KINDERMANN & C. REIBLEIN.
Steam Track-Clearer.

No. 216,418.

Patented June 10, 1879.

Fig. 1.

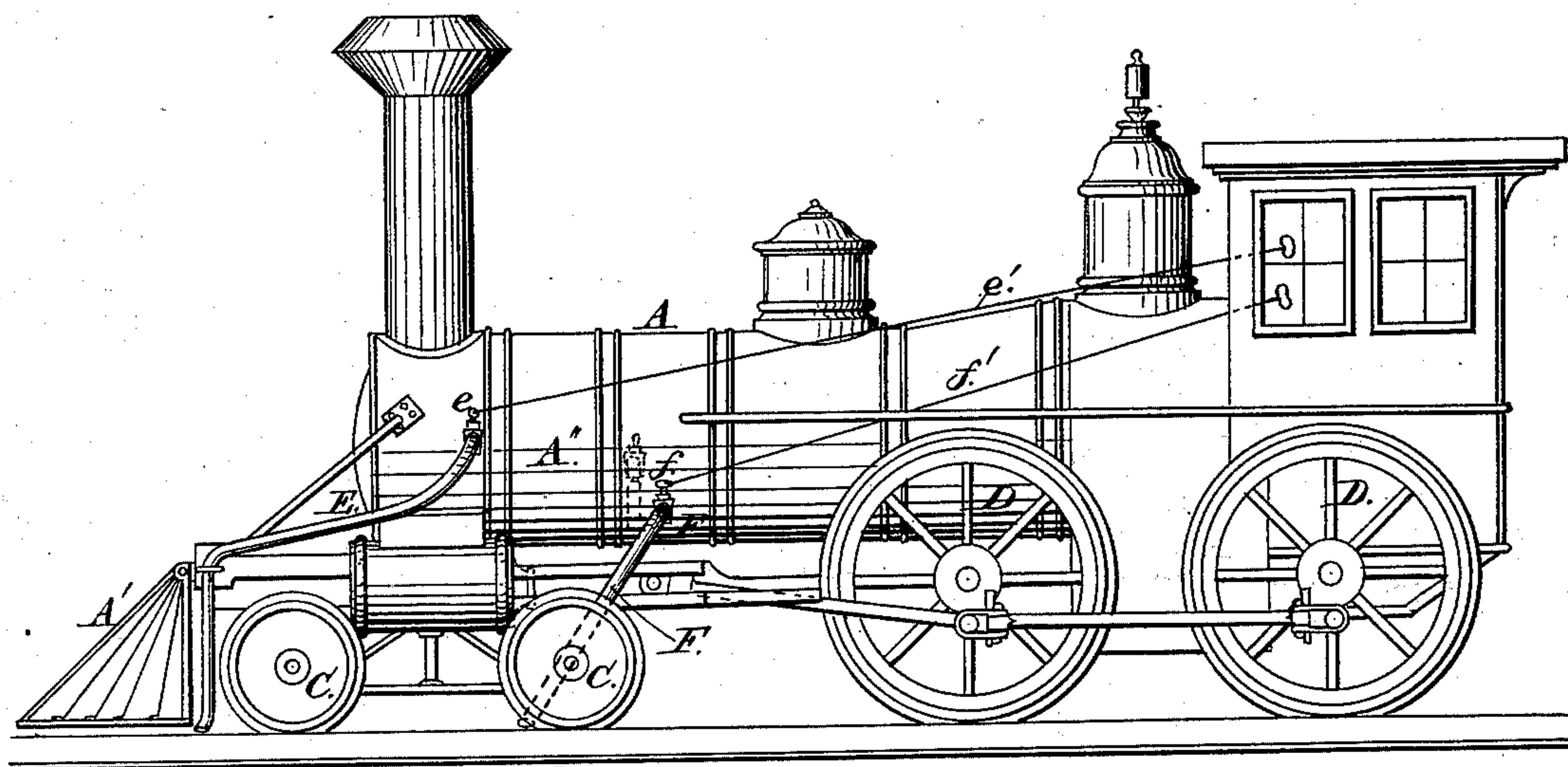


Fig. 3.

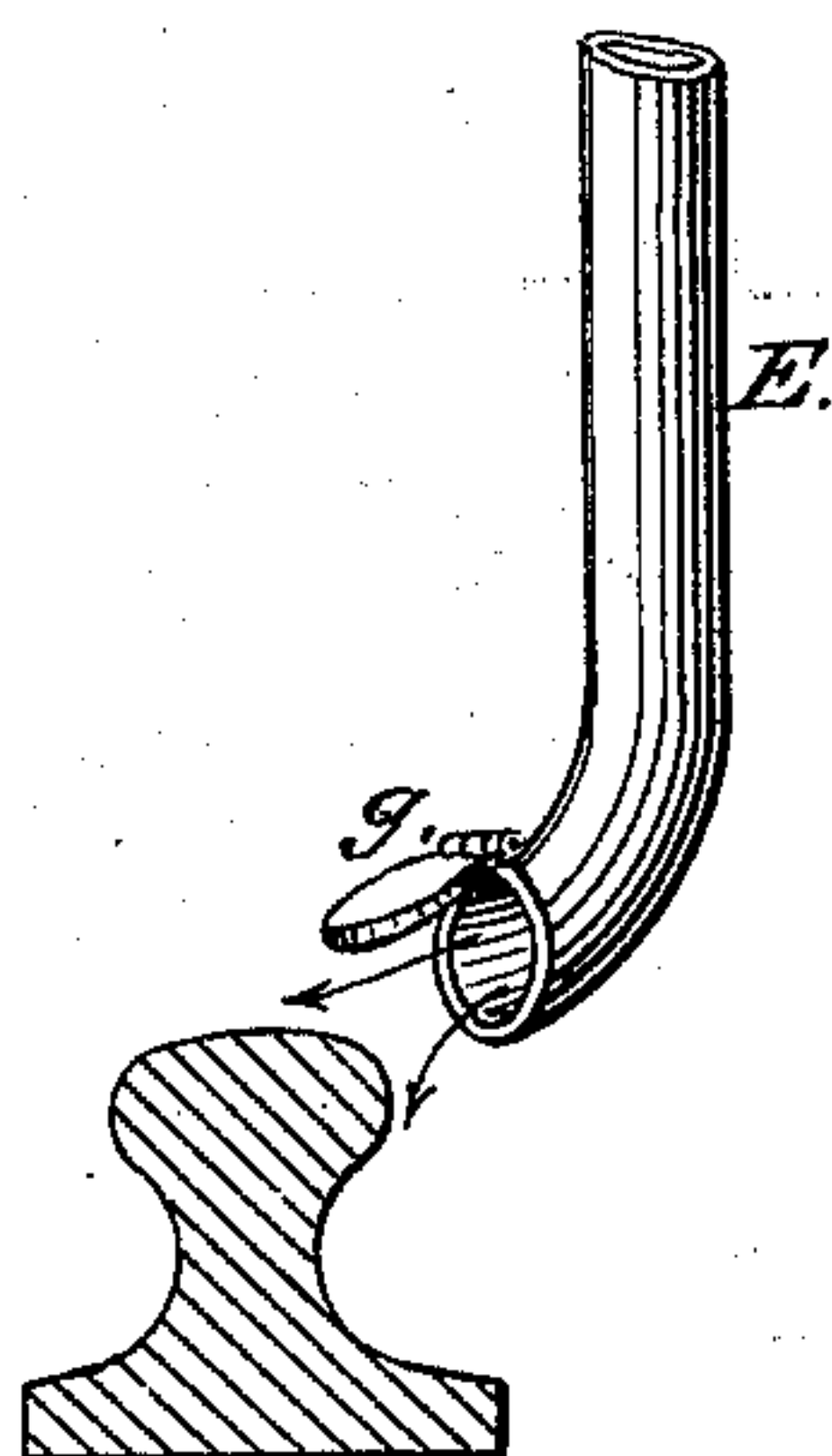


Fig. 2.

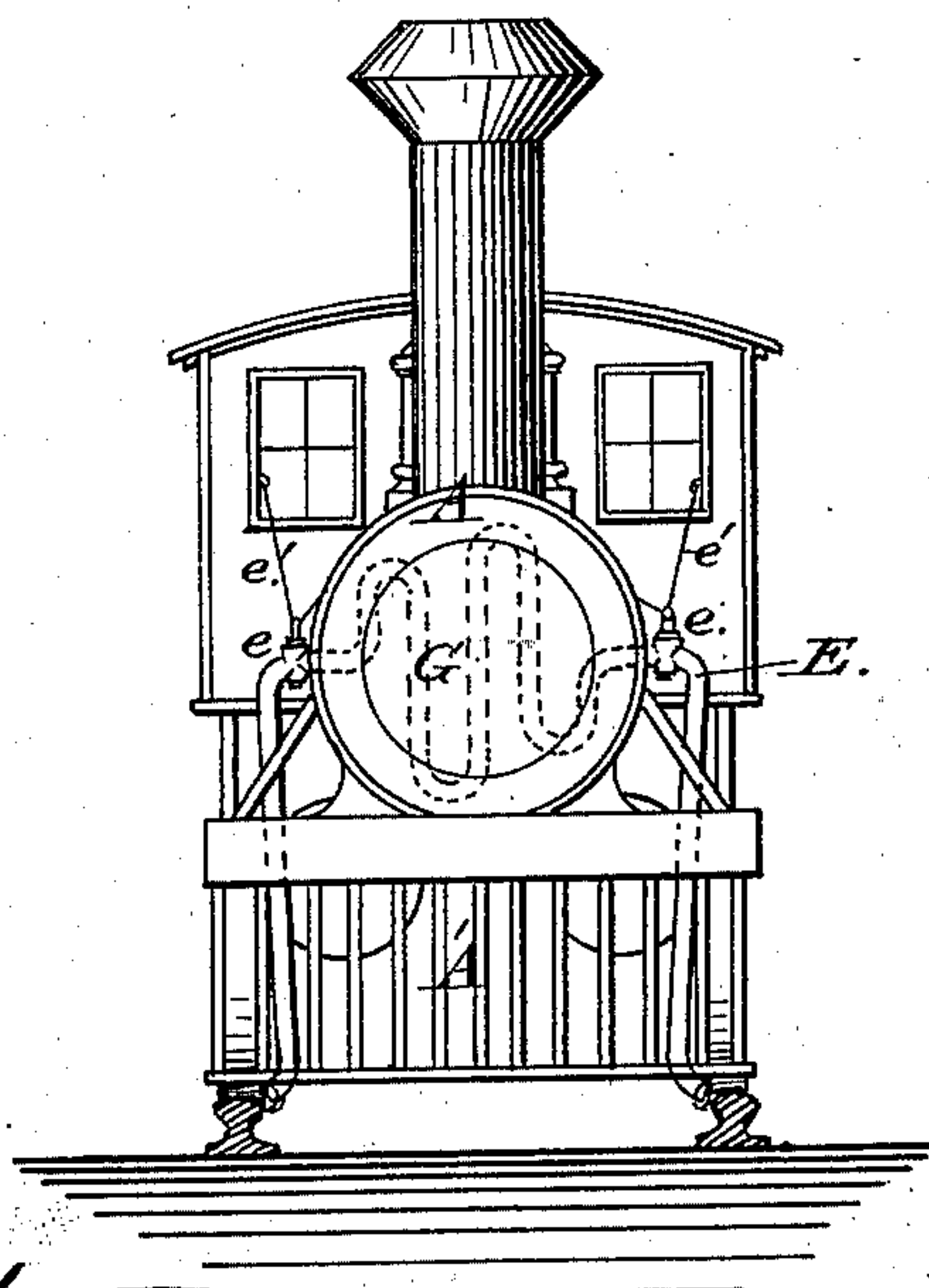
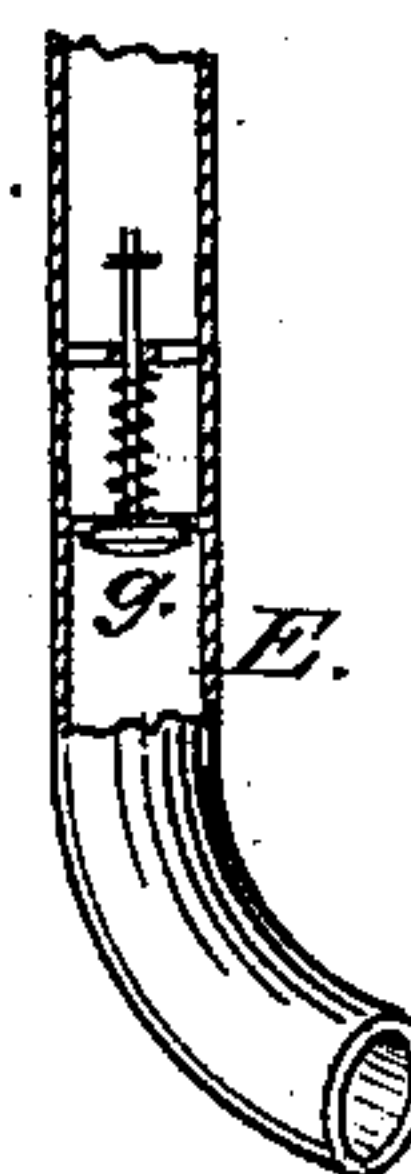


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUST KINDERMANN AND CHARLES REIBLEIN, OF CLEVELAND, OHIO.

IMPROVEMENT IN STEAM TRACK-CLEARERS.

Specification forming part of Letters Patent No. **216,418**, dated June 10, 1879; application filed April 17, 1879.

To all whom it may concern:

Be it known that we, AUGUST KINDERMANN and CHARLES REIBLEIN, both of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Steam Track-Clearers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of our invention is to improve the construction of steam track-clearers, so that the snow, ice, &c., is cleared off the top of the rails as well as on the inner sides of the rails.

The invention consists in the combination, with the cow-catcher of the locomotive, of sets of pipes, one set of which extends down to the rails immediately in front of the first pair of the truck or front wheels of the locomotive, and the second set to the front of the second pair of the truck-wheels. The lower ends of the pipes are bent outward and sidewise in such manner as to strike the rails at an angle of about forty to forty-five degrees, and so as to allow part of the steam to come on the top or face of the rails, while part passes against the inner sides thereof, so as to not only clean the face, but the inner sides, which is a very important feature, as the packed snow or ice accumulated on the sides often causes the locomotive to jump the track and cause serious accidents. The mouths of the pipes are provided with self-closing valves, so as to close when the steam is not used. Suitable cocks are arranged in the pipes, with rods leading to the engineer's cab by which to manipulate the steam, as desired. The front pipes may also be arranged to connect with a superheating-coil in the smoke-arch, so as to highly heat the steam, all of which will be more fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 represents a locomotive with the pipes, &c., attached. Fig. 2 is a front elevation of the same. Fig. 3 is an enlarged detail view of the mouth of one of the pipes, showing the valve. Fig. 4 is a modification of the same.

In the drawings, A represents a locomotive

having the usual cow-catcher, A', truck-wheels C and C, and drivers D. To the front end of the boiler A'' are attached the pipes E, communicating with the steam-space thereof, and extending nearly down to the rails in front of the first pair of truck-wheels C. Suitable cocks *e* are arranged in the pipes, and are manipulated by rods *e'*, extending to the engineer's cab. These pipes may be connected with a coil, G, in the smoke-arch, as shown in dotted lines in Fig. 2, if desired, to superheat the steam.

The second set of pipes, F, are arranged to extend in front of the second pair of truck-wheels C, and are also provided with cocks *f* and rods *f'*. If desired, a branch pipe may be attached to the pipes F, to connect with the hot water as well as the steam, so as to use both hot water and steam. The lower ends of all the pipes are bent in such manner as to strike the rails at an angle of about forty or forty-five degrees, so that part of the steam shall pass on the upper face of the rails, while the other part strikes the rails on the inner sides, so as to clear them from packed snow or ice, as shown by the arrows in Fig. 3.

The mouths of the pipes are provided with self-closing or weighted valves *g*, so that the pipes are closed when the locomotive is not running, or it is not necessary to use the steam. These valves must be light enough to easily open when the steam is let on.

Instead of hinged valves, as shown in the drawings, valves may be employed which are seated by springs or weights of any description, or a cap with perforations or made of wire-gauze might be employed with advantage.

The great advantages in arranging the pipes as shown in our steam track-clearer are that the ice and packed snow are cleaned from the inner sides of the rails, which have heretofore never been reached by steam, but only by scrapers, which have done this very imperfectly and are liable to get broken; and as the flanges of the wheels are often raised by the ice and snow collected on the inner sides of the rails, the locomotive and cars have been thrown from the track. By providing the mouths of the pipes with self-closing valves, no snow or ice can enter and stop them up while running. The device can be easily applied to any locomotive and at a very small

cost. The main body of the snow is thrown aside by the cow-catcher, and the remainder is then cleared off by the steam from the pipes.

We are aware that steam-pipes have been arranged on locomotives to clear the face of the rails of snow, ice, grease, &c., and also that a series of pipes extending perpendicularly between the tracks have been used, and therefore do not broadly claim such; but,

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a steam track-clearer, the pipes E and F, curved as described, and provided with self-closing valves at their mouths, as shown, and for the purpose described.

2. In a steam track-clearer, the pipes E and

F, curved as described, provided with self-closing valves *g*, cocks *e f*, and operating-rods *e' f'*, all arranged as shown, and for the purpose herein specified.

3. The steam track-clearer herein described, consisting of pipes E F, provided with self-closing valves *g*, cocks *e f*, and rods *e' f'*, all constructed and arranged as shown, and for the purpose specified.

In testimony that we claim the foregoing as our own we hereby affix our signatures in presence of two witnesses.

AUGUST KINDERMANN.
CHARLES REIBLEIN.

Witnesses:

W. H. BUTTNER,
CHARLES A. STIBLE.