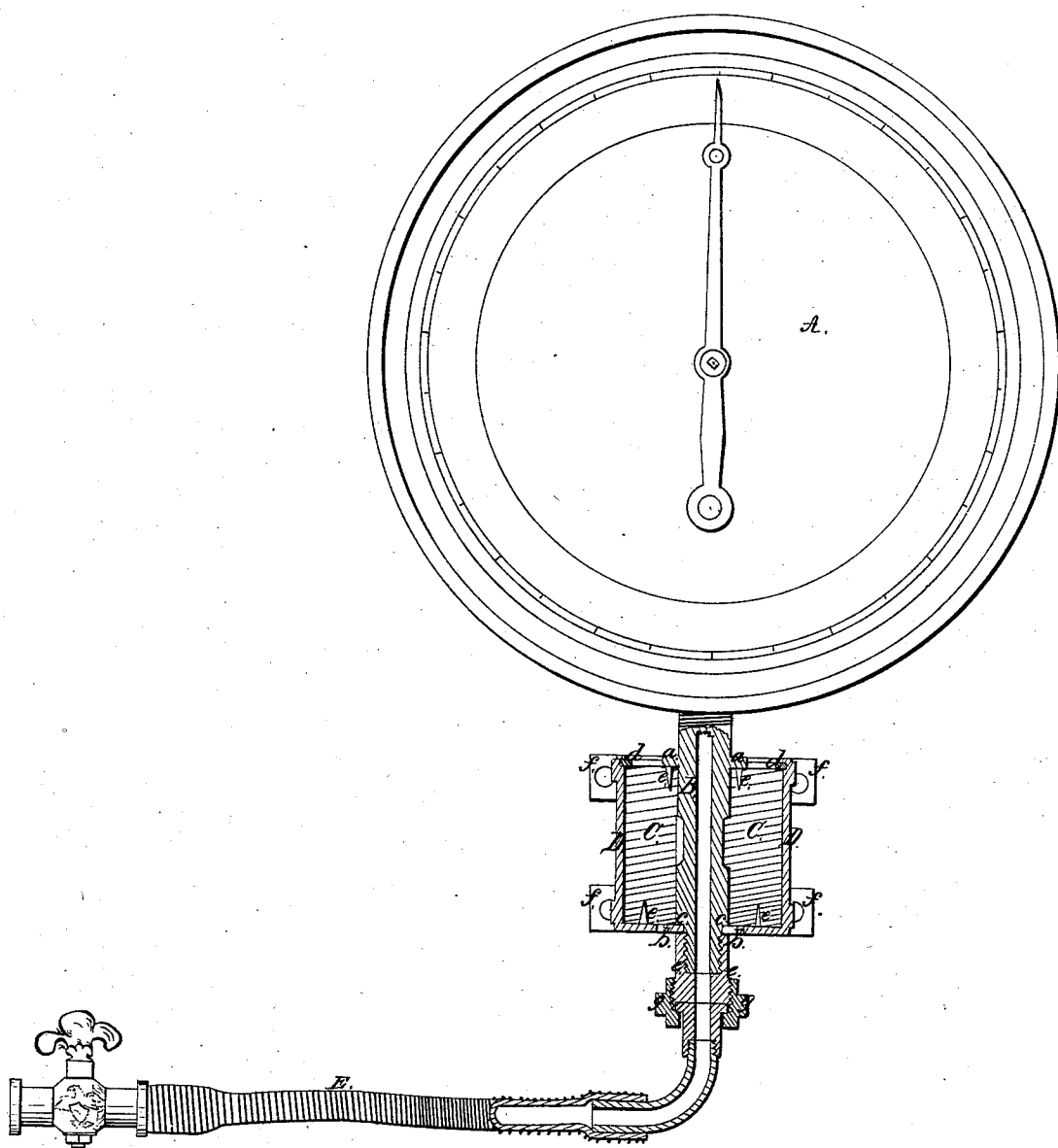


J. L. Eastman.

Steam Gauge.

N^o 18,578.

Patented Nov. 10, 1857.



UNITED STATES PATENT OFFICE.

J. L. EASTMAN, OF BOSTON, MASSACHUSETTS.

ATTACHING STEAM-GAGE TO LOCOMOTIVE-BOILERS.

Specification of Letters Patent No. 18,578, dated November 10, 1857.

To all whom it may concern:

Be it known that I, J. L. EASTMAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and
5 Improved Mode of Attaching Steam-Gages to Locomotive-Engines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing,
10 forming a part of this specification, said drawing representing a front view of a steam-gage and its attachments, the attachments being shown partly in section.

The ordinary method of attaching a steam
15 gage to a locomotive is by bolting it rigidly in its place, but owing to the jarring to which the gage, when thus attached, is subjected when the engine is running, its working parts are liable to be very soon worn or
20 deranged to such a degree that the gage is unsteady and unreliable.

The object of my invention is to overcome this difficulty, and to this end the nature of my invention consists in applying the gage
25 in the manner described as follows:

A, is the gage which may be of any kind suitable for locomotives.

B, is an upright metal tube attached to the gage and serving to convey the steam
30 into it, said tube having a tight collar or shoulder *a*, near the top to rest upon a spring C, which is secured within a cylindrical box D, the said tube passing entirely through the box and having another shoulder *c*, near the
35 bottom against which a ring or detachable collar *b*, is secured by a nut *e*, screwing on

to the bottom of the tube to attach the tube to the spring C. The spring represented is made of india rubber but may be of metal. It rests upon the bottom of the box and is
40 confined therein by a ring *d*, that is sprung into a groove made round the upper part of the interior of the box. The bottom of the box has fixed sharp pointed pins *e*, *e*, standing up from it to enter the rubber and pre-
45 vent it playing too much laterally, and the collar or shoulder *a*, has similar pins entering the rubber to prevent the tube playing too much laterally. The box D, is furnished with lugs F, F, through which it is
50 bolted to the boiler or to any fixed stand on the locomotive. Steam is conveyed from the boiler to the tube B, by means of a connecting pipe E, of india rubber or other
55 flexible material which is connected with the tube B, by a union nut *g*. By this mode of attaching the gage it is effectually protected against all jarring action, the spring C, breaking every shock and the flexible pipe E, yielding to any movement of the tube B,
60 in the spring C.

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

Interposing between the gage and the boiler, the elastic cushion or spring, so that
65 the jar or vibrations of the engine shall not be transmitted to the gage, substantially as set forth and described.

J. L. EASTMAN.

Witnesses:

BENJAMIN POND,
GEORGE B. BROWN.