

E. A. Tuttle, Register.
 No. 120,912. *Fig:1.* Patented Nov. 14, 1871.

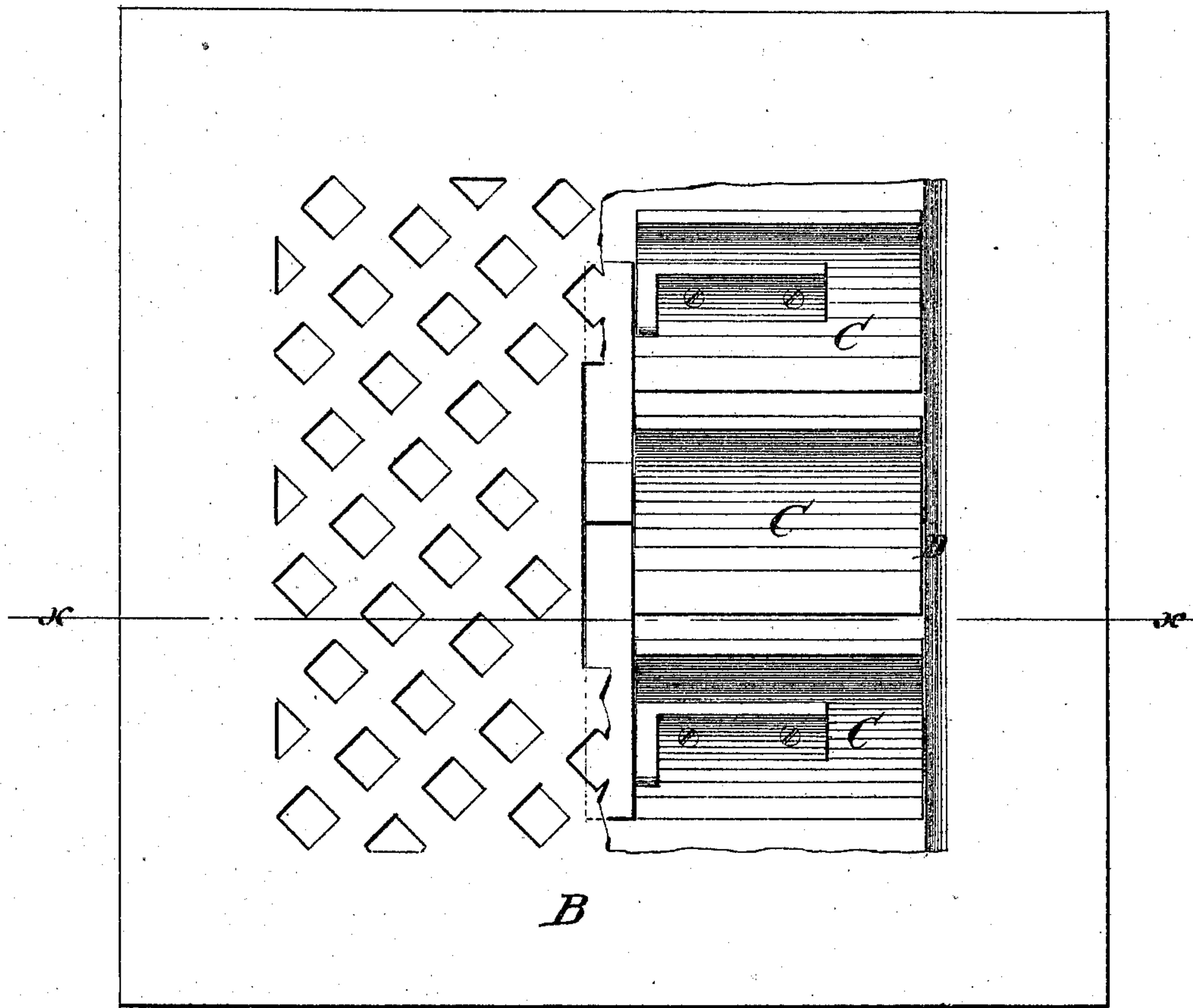
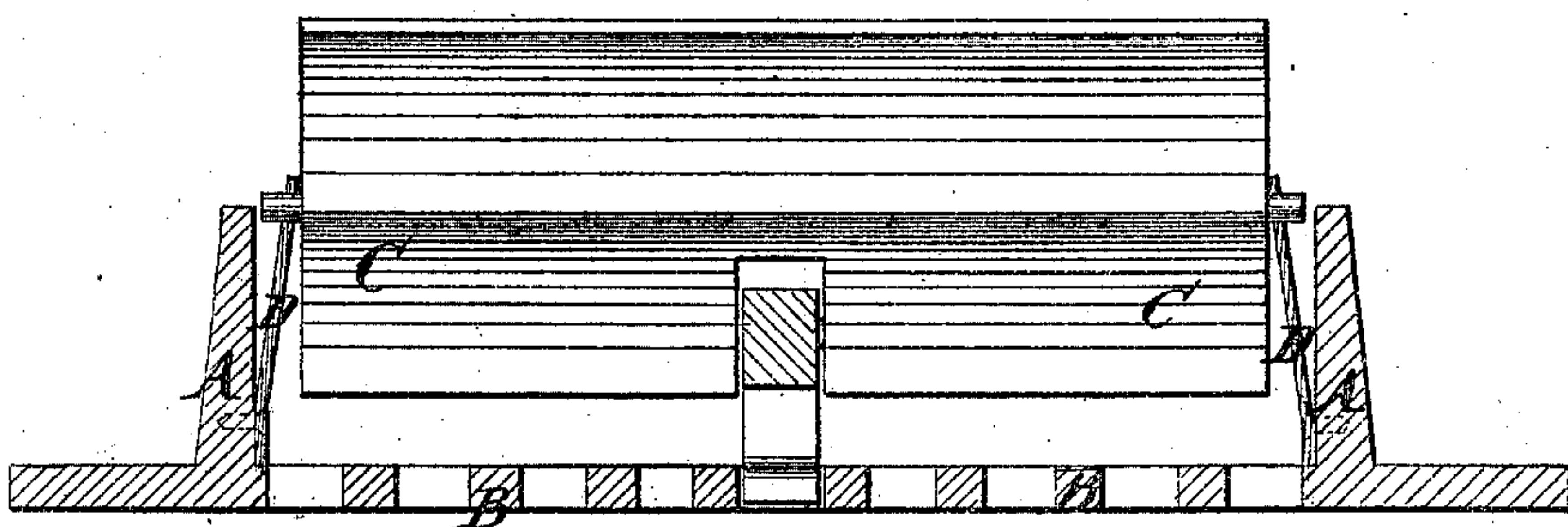


Fig:2.



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UNITED STATES PATENT OFFICE.

EDWARD A. TUTTLE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN AIR-REGISTERS.

Specification forming part of Letters Patent No. 120,912, dated November 14, 1871.

To all whom it may concern:

Be it known that I, EDWARD A. TUTTLE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Register; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in the registers used for regulating the passage of air; and it consists in a combination with the slats of a spring or springs in such a manner as to retain them in any position as may be required for controlling the passage of the air, all as hereinafter described.

Figure 1 is a front elevation of a register having my improvement applied, a part of the front plate being broken out. Fig. 2 is a sectional elevation of the same on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the frame of the register; B, the front plate; C, the rotating slats; and D represents the springs, which are for pressing against the slats to cause them to remain in any position into which they may be adjusted. In this example I have arranged the said springs within two opposite walls of frame A, and parallel with them, to receive the journals of the slats and support them, also, while bearing against the shoulders or ends of the slats with sufficient force to prevent them from turning by the jarring to which they may be subjected, or by weight if not prop-

erly balanced; but this is not essential, for the said journals may be just as well supported in the frame A, and the springs be fitted to bear against them at and around the said journals, or any other equivalent arrangement of the said springs may be had, as preferred, and either one or two springs may be used.

By the employment of these springs an elasticity is imparted to the support of the slats by which they are adapted to receive slats of different lengths, which is desirable, because they often vary in length, though made from the same pattern; but care will be taken to have the slats for each register as nearly the same length as possible. The said spring plates also afford a means for compensating for variations in the thickness of the sides of the frames commonly supporting the journals, which also often occur in casting, thereby obviating the necessity of fitting them, as they have had to be heretofore.

The said arrangement is highly desirable over registers of railroad cars, to prevent them from rattling, as well as to hold them from turning.

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

1. The combination, with the frame A and the slats, of one or more springs receiving and supporting the journals while bearing against them.
2. The spring-plates, one or both, bearing against the ends of the slats, whether supporting them or not.

EDWARD A. TUTTLE.

Witnesses:

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