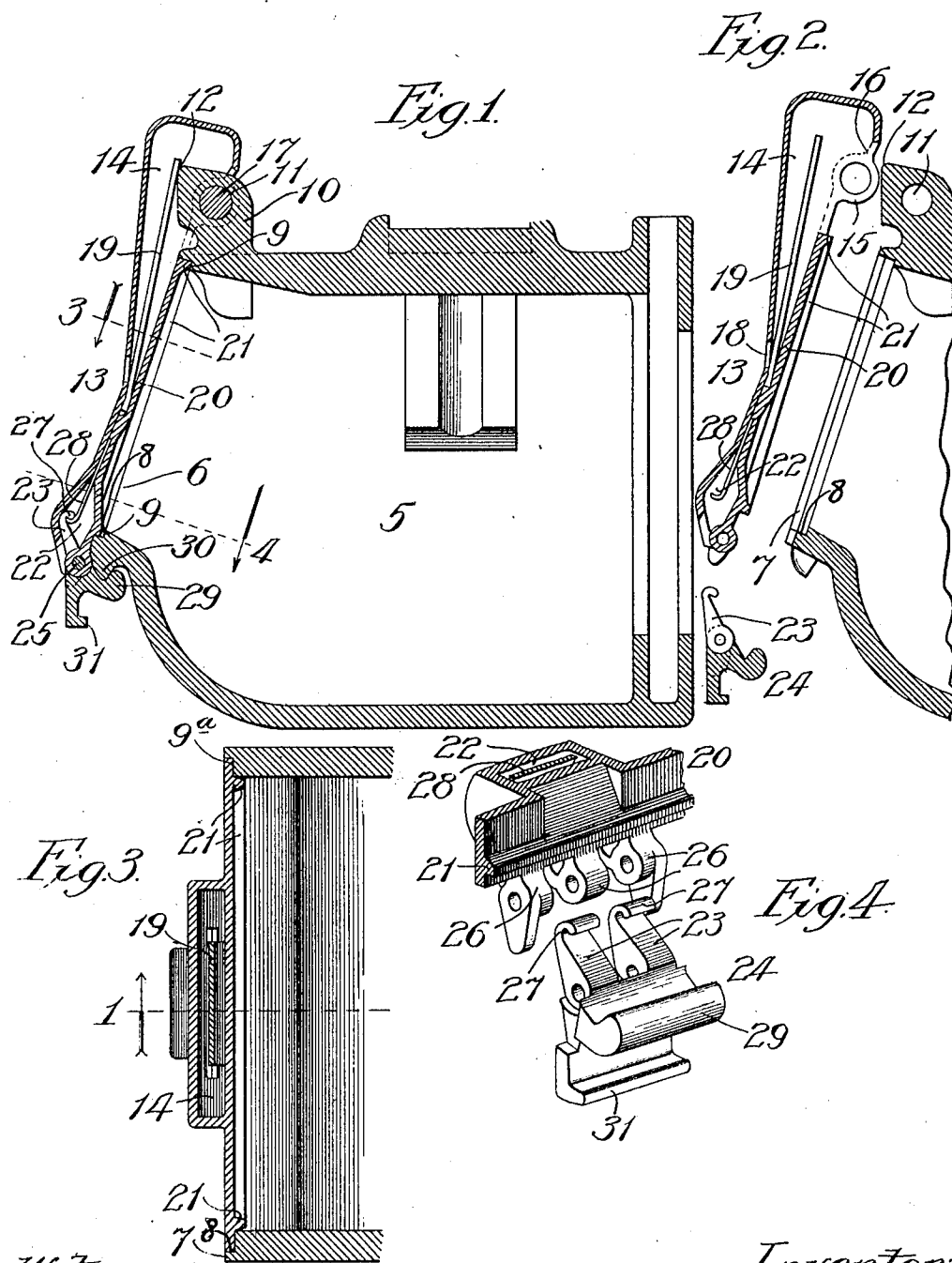


S. J. STRID.
JOURNAL BOX.
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970,133.

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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX.

970,133.

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To all whom it may concern:

Be it known that I, SVEN J. STRID, a subject of the King of Sweden, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Journal-Boxes, of which the following is a specification.

My invention relates, more particularly, to improvements in journal boxes for railway-cars.

It is well understood that the journal-boxes of a car occupy a position in which they are exposed to the dust and dirt drawn into the air by the suction action produced by the moving train, and that unless the lids of the journal-boxes fit them closely and are held in close engagement therewith, while the car is in motion, dust and dirt will enter the journal-boxes with the well-known disadvantageous results.

In the constructions of journal-boxes as hitherto provided the character of the joint between the hinged lid and the box-proper is such as to permit relatively large quantities of dust and dirt to enter the box, and furthermore the lids are so associated with the box as not to prevent the former from vibrating on their pivots against the box due to the jarring of the cars to which they are secured, whereby the opening into the interior of the box is periodically opened a slight distance permitting dust and dirt to enter.

My objects, generally stated, are to overcome the disadvantages of prior structures as above pointed out, and to that end I provide a novel form of joint between the lid and box, and means for releasably and positively holding the lid in close engagement with the box-proper during the movement of the car equipped with it, whereby dirt and dust can not enter the box.

Referring to the accompanying drawing—Figure 1 is a central longitudinal vertical sectional view of a journal-box embodying my improvements. Fig. 2 is a similar broken view showing certain parts of the construction represented in Fig. 1 in disassembled relation. Fig. 3 is a section taken at the line 3 on Fig. 1 and viewed in the direction of the arrow; and Fig. 4, a broken perspective view of the lower end-portion of the lid and of the catch-member illustrated in Figs. 1 and 2, the view of the lid being viewed in perspective at the line 4 on Fig. 1.

The box-proper which is represented at 5 contains the usual opening or mouth 6 for permitting access to the interior of the box, this opening being of rectangular form as represented. The opening 6 is flanked by a continuous flange 7 affording a shoulder 8 surrounding upper and lower seats 9 and lateral seats 9^a for the lid of the box herein-after referred to, the portions of the flange 7 surrounding the seats 9^a being shallower than those portions surrounding the seats 9. The top of the box is provided with the lug 10 usually employed, and contains an aperture 11 and a shouldered portion 12. The lid of the box is represented at 13, and is so formed as to provide a chamber 14 near its upper end flanked by bosses 15, one only of which is shown, between which bosses the lid is apertured at its rear wall as represented at 16. The lid is journaled on the lug 10 by means of a pin 17 passing through the bosses 15 and the aperture 11, the shouldered portion 12 of the lug 10 projecting through the opening 16 and into the chamber 14 as represented in Fig. 1. Owing to the requirement that the lid swing upon the box-proper, a tight fit between the rear wall of the lid and the lug 10 is prevented, thus affording an opening through which dust can enter the chamber 14. To render the chamber 14 self-cleaning, I provide an opening 18 in the lower portion of the front wall of the lid, whereby any dust entering the chamber 14 will be discharged through this opening into the air. The construction of box illustrated is further like those common in the art in that the chamber 14 contains a leaf-spring 19 fixed to the lid at its lower end and bearing at its upper, free end against the shouldered portion of the lug 10. This spring so coöperates with the lug 10 as to cause the lid 13 to be held open in a substantially horizontal position when it is swung upward, and to hold the lid, under spring tension, in position for closing the opening 6, as represented in Fig. 1. The rear wall 20 of the lid carries a rearwardly-extending continuous flange 21, the upper and lower horizontal portions of said flange fitting upon the seats 9 as represented in Fig. 1. The width of the wall 20 of the lid is such as to cause it to fit upon the seats 9^a and flush with the outer face of the flange 7, the lateral portions of the flange 21 extending beyond the seats 9^a and snugly fitting

against the inner surface of the adjacent portion of the box 5. It will be noted that by so forming the joint between the lid and the box-proper 5 the joints are disposed at an angle to the direction of travel of the dust and dirt which, by reason of the suction action of the moving train, is caused to impinge against the box, and therefore danger of dust or dirt entering the box is minimized.

10 The provision of the upright portions of the flanges 21 cooperating with the seats 9^a affords a step joint which, as will be readily seen, practically completely prevents the access of dust into the interior of the box.

15 The lower portion of the lid 20 contains a chamber 22 into which the two upwardly-extending lugs 23 of a catch 24 pivoted to the lid as by a pin 25 extending through the lugs 23 and spaced depending lugs 26 on the lid, extend, it being understood that the lower wall of the chamber 22 contains openings through which the lugs 23 extend. The lugs 23 are hook-shaped as represented at 27 and engaging therewith is the free end of a leaf-spring 28 secured to the lid and extending into the chamber 22, the spring being so associated with the catch 24 as to tend to tilt it at its lugs 23 away from the box 5. Near the lower end of the catch 24 is a lip 29 adapted, under the action of the spring 28, to interlock with a downwardly-extending shoulder 30 on the front of the box 5 below its opening 6, when the lid is closed as represented in Fig. 1.

35 It will be noted from the foregoing that when the lid 20 is moved to the position illustrated in Fig. 1 the catch 24 will engage with the shoulder 30 and thus vibration of the lid against the box-proper with its attendant disadvantages, is completely overcome. An angular flange 31 depends from the catch 24 and serves as a convenient medium by which the catch may be disengaged from the shoulder 30 when it is desired to raise the lid.

45 What I claim as new, and desire to secure by Letters Patent, is—

1. A journal-box comprising, in combination, a box-proper provided with a swingingly mounted lid and with a catch-engaging shoulder on the outside surface thereof, said lid containing a chamber near its lower end with spaced lugs extending from the walls thereof, a catch pivoted to said lugs and extending at one portion into said chamber and at another portion in substantially the plane of the lid into engagement

with the shoulder on the box-proper; and a spring in said chamber for holding the catch in position for engaging with said shoulder, for the purpose set forth.

2. A journal box comprising, in combination, a box-proper provided with a swingingly mounted lid and with a catch-engaging shoulder on the outside surface thereof, said lid being provided with a chamber near its lower end and spaced lugs extending from the walls thereof, a catch pivoted to said lugs and extending at one portion in substantially the plane of the lid into said chamber and at another portion into engagement with the shoulder on the box-proper, and a leaf spring secured at one end in the chamber and with its free end engaging the portion of the catch which extends into the chamber, for the purpose set forth.

3. A journal box comprising, in combination, a box-proper provided with a swingingly mounted lid and with a catch-engaging shoulder on the outside surface thereof formed at the lower edge of the mouth, said lid containing a chamber near its lower end with spaced lugs extending from the walls thereof, a catch pivoted to said lugs and extending at one portion into said chamber and at another portion in substantially the plane of the lid into engagement with the shoulder on the box-proper, and a spring in said chamber for holding the catch in position with said shoulder for the purpose set forth.

4. A journal box, comprising, a box-proper provided with a swingingly mounted lid and with a catch-engaging shoulder on the outside surface thereof, said lid containing a chamber near its lower end with spaced lugs extending from the walls thereof, a catch pivoted to said lugs and extending at one portion into said chamber, at another portion in substantially the plane of the lid into engagement with the shoulder on the box-proper, and at another portion into position to be engaged for operating the catch, and a spring in said chamber engaging a portion of the catch extending into the chamber for holding the catch in position to engage with said shoulder for the purpose set forth.

SVEN J. STRID.

In presence of—

CHAS. E. GAYLORD,
RALPH SCHAEFER.