A. W. NEUDECK.

DUST GUARD FOR JOURNAL BOXES.

APPLICATION FILED JAN. 10, 1908.

917,963.

Patented Apr. 13, 1909.

Fig. 1.

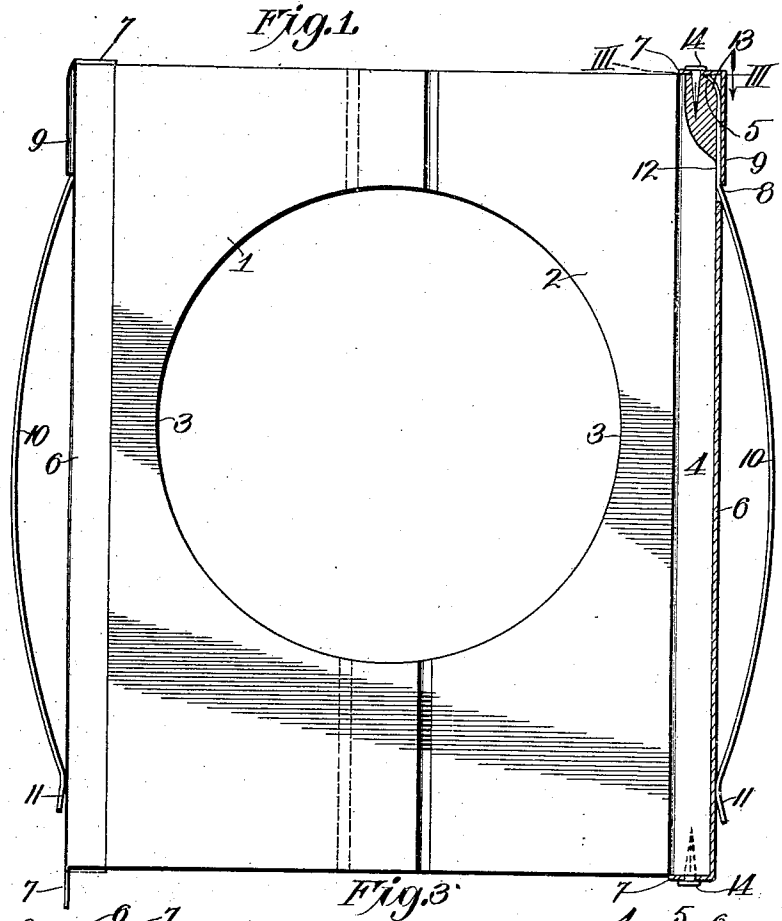


Fig. 2.

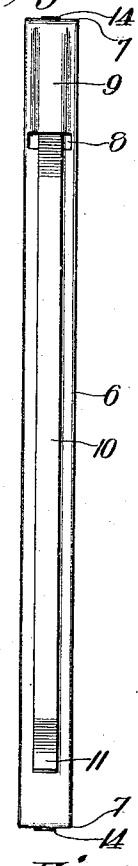


Fig. 3.

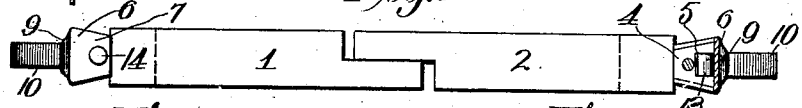


Fig. 7.

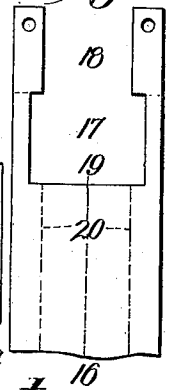


Fig. 4.

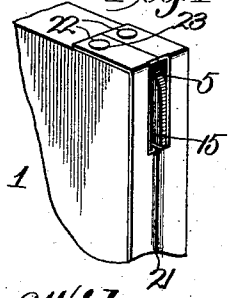


Fig. 5.

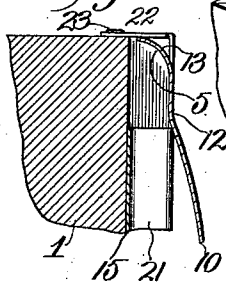


Fig. 6.

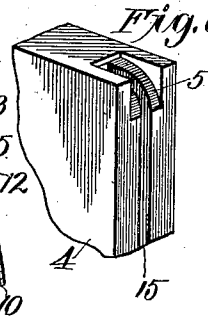
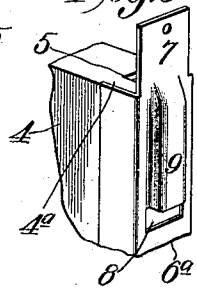


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

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DUST-GUARD FOR JOURNAL-BOXES.

No. 917,963. Specification of Letters Patent. Patented April 13, 1909.

Application filed January 10, 1908. Serial No. 410,169.

To all whom it may concern:

Be it known that I, ADOLPH W. NEUDECK, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Dust-Guards for Journal-Boxes, of which the following is a specification.

This invention relates to dust guards for journal boxes, and my object is to produce an efficient dust guard of maximum strength and durability at a minimum cost.

To this end the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood, reference is to be had to the accompanying drawing, in which,

Figure 1, is a side view of a dust guard embodying my invention, broken away at one corner and showing one of its reinforce bars in central vertical section. Fig. 2, is an edge view of the dust guard. Fig. 3, is a top view with one of the reinforce bars in section on dotted line III—III of Fig. 1. Fig. 4, is a perspective view of a part of a modified form of dust guard. Fig. 5, is a central vertical section of the construction shown in Fig. 4. Fig. 6, is a perspective view of one corner of the wood part of the dust guard of Figs. 4 and 5. Fig. 7, is a view of the metal blank from which the dust guard of Figs. 4 and 5 is produced. Fig. 8 is a perspective view of a portion of the dust guard equipped with a modified form of reinforce bar.

In the said drawing, 1 and 2 indicate similar sections forming a dust guard, the inner edges of said sections being stepped together and adapted to slide toward and from each other, said edges being also formed with segmental recesses 3 which together constitute the journal opening, the construction thus far described being well known. In the event that such sections are of wood the recesses will be cut transversely of the grain so that there shall be no danger of the reduced or stepped portions splitting or chipping, and to prevent any possibility of the sections splitting at their weakest points, viz. from the central portions of their recess to their outer vertical edges, I have provided metallic reinforce bars. In the preferred construction the longitudinal outer edges of the sections are cut away to form dove-tail shaped ribs 4, and at their upper ends said ribs are notched or recessed as at 5.

6 indicates metal reinforce bars, the same being of dove-tail shape and adapted to be slid on the ribs 4, the body of the bars fitting against the outer edges of the ribs and the sides of the bars fitting against the sides of the ribs and forming stiffeners which will guard against any possibility of the sections splitting along the length of the grain under any strain imposed upon them in actual use. At each end the body portions of the bars are provided with extensions 7 adapted to be bent down upon the adjacent ends of the ribs, and each bar is formed with a slot 8 and above the same is stamped outward as at 9 to form an inner channel connecting at its upper end with notched portion 5.

10 indicates bowed springs outward of the bars and having their lower ends bent back at 11 and slidably engaging said bars and their upper ends extending through said slots 8 and up through said channels as at 12, the extreme upper ends of said bars being bent inward to fit snugly in the notches 5 and be clamped reliably therein by the ends 7 of the bars, said ends being secured in position by tacks 14 or equivalent devices. The springs 10 perform their usual functions, that is to say, press the sections yieldingly together by bearing against the walls of the journal box, not shown.

In Fig. 6, it will be noticed that the outer sides of the section are not grooved, but that said section is provided with a central groove 15. The reinforce bar for use with this section is originally in the form shown by the blank 16 of Fig. 7, said blank being provided near its end with large openings 17 connected to slightly narrower slots 18 which lead to the ends of the bar. The bar is bent longitudinally on the line 19 and is then again bent on the parallel lines 20. By thus bending the blank it is provided with an inwardly projecting rib 21 extending from opening 17 to opening 17, which rib when the bar is fitted against the outer edge of the section occupies the groove 15 of the same for the purpose of stiffening and preventing said section from splitting along the line of the grain. It will be noticed in this connection by reference particularly to Fig. 4, that when the blank is bent to form

the rib 21 the edges of slot 18 are brought together and the originally wide opening 17 becomes a narrow vertical slot. The spring 10 is then fitted against the outer side of the bar with its upper portion 12 occupying the said narrow slot and the portion 13 fitting in the notch 5, being clamped in such position by the ends of the bar when bent downward against the ends of the section as at 22 and secured thereto by tacks or equivalent devices 23.

In Fig. 8, almost a counterpart of the preferred construction is shown. In said figure the sides of the section are grooved to produce a rib 4^a having parallel sides, and the sides of the reinforce bar are also parallel. In this construction the tacks must be mainly relied upon to hold the bar on the section, whereas in the preferred construction the dove-tail relation between the section and the reinforce bar guards against any possibility of the dislocation of the latter even if the tacks 14 were dispensed with. It will thus be seen that I have produced two types of channel bars and a substantially T-shaped reinforce bar either of which may be employed to reliably stiffen wood or other dust guard sections.

Heretofore dust guard sections have generally been made of fiber, a stronger but much more expensive substance than natural wood. It has been impracticable heretofore to make dust guard sections of natural wood because if the grain ran parallel with the step portions the latter would be too weak to stand the strain imposed upon them and if it ran transversely the sections would check or split about midway their length. By equipping wood sections with their grain running transversely of their step portions with metal reinforce bars all danger of checking or splitting is eliminated and a dust guard is produced which performs its function efficiently and which will wear indefinitely; furthermore, when the sections are worn out the metal reinforce bars and springs can be moved and placed upon new sections.

From the above description it will be apparent that I have produced a dust guard embodying the features of advantage enumerated as desirable and which may be modified in minor particulars without departing from the principle of construction involved.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A dust guard comprising two wood sections having segmental recesses in their inner edges conjointly forming a circular opening, metal reinforce bars secured to the outer longitudinal edges of the sections and provided with longitudinal stiffening portions projecting inwardly and engaging the adjacent edges of the sections to stiffen and strengthen the same from their recessed to their outer longitudinal edges, the said reinforced bars terminating in end portions engaging the upper and lower edges of the sections and secured to the latter, and an outwardly bowed spring at the outer side of each stiffening bar and clamped at one end by said stiffening bar to the corresponding section.

2. A dust guard, comprising two sections having segmental recesses in their inner edges, a metal reinforce bar secured to the outer longitudinal edge of each section and provided with a stiffening portion to relieve its section of strain tending to check or split it from its recessed toward its reinforce edge, and an outwardly bowed spring at the outer edge of each section and having one end clamped against the section by the reinforce bar of the latter.

3. A dust guard, comprising two sections having segmental recesses in their inner edges, a metal reinforce bar secured to the outer longitudinal edge of each section and provided with an opening, and a spring at the outer side of the reinforce bar with one end extending through said opening and clamped firmly by the reinforce bar against the section.

4. In a dust guard, a section having its inner edge provided with a segmental recess and one of its outer corners notched, a reinforce bar secured to the outer edge of the section and provided with an opening, and a bowed spring extending through said opening and bearing at one end slidingly against the outer side of the reinforce bar and having its opposite end bent and engaging the notch of the section and secured in said notch by the reinforce bar.

In testimony whereof I affix my signature, in the presence of two witnesses.

ADOLPH W. NEUDECK.

Witnesses:
FRANK R. GLORE,
G. Y. THORPE.