(No Model.)

2 Sheets—Sheet 1.

S. R. BAILEY.

SLEIGH.

No. 355,855. Patented Jan. 11, 1887.

Fig. 4.

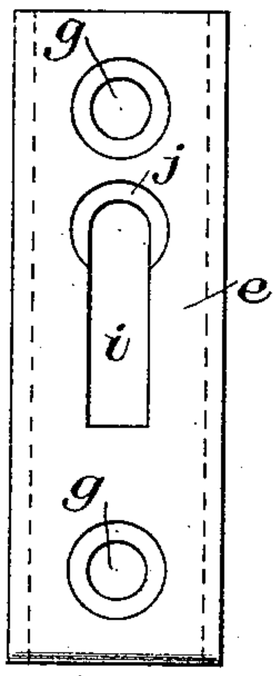


Fig. 5.

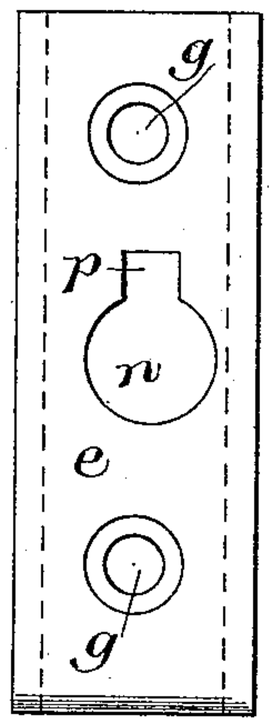


Fig. 1.

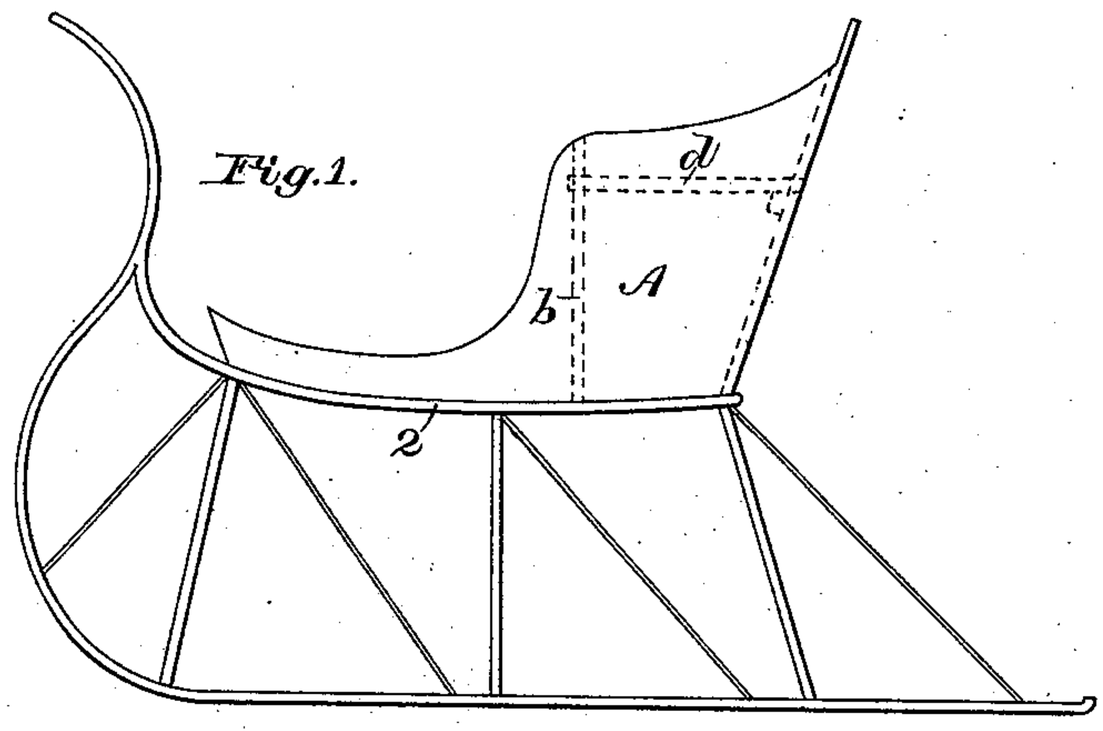
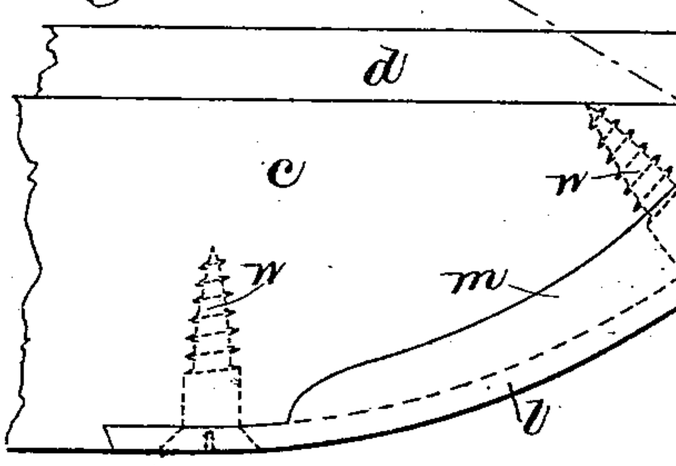


Fig. 2.



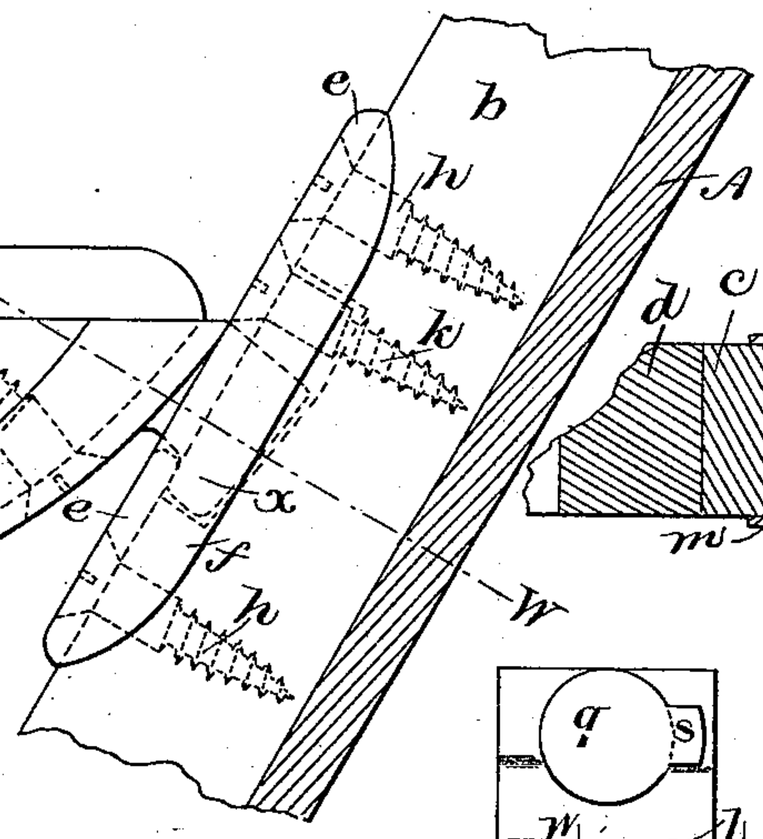


Fig. 3.

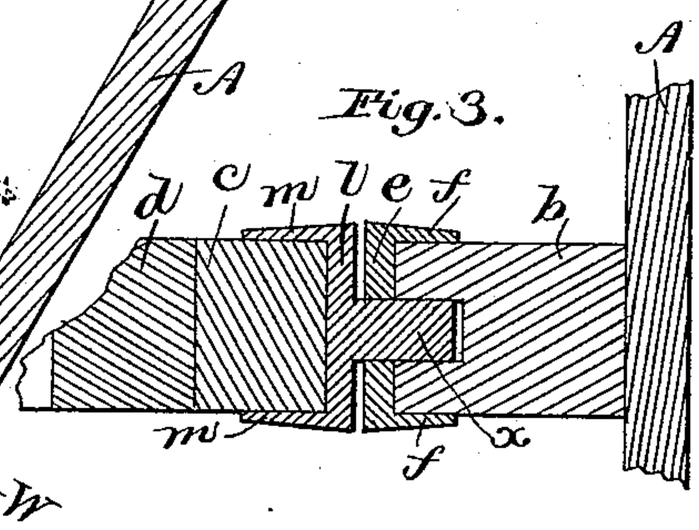


Fig. 10.

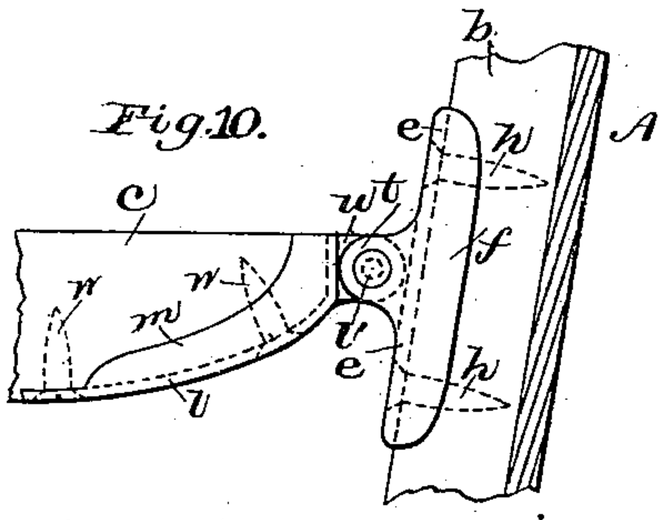
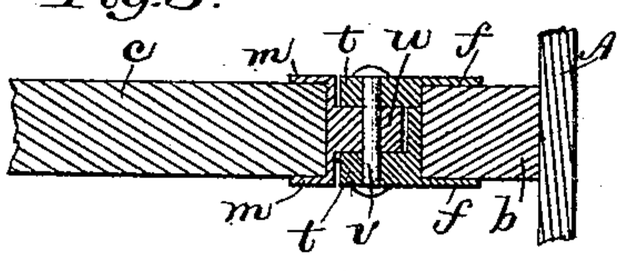
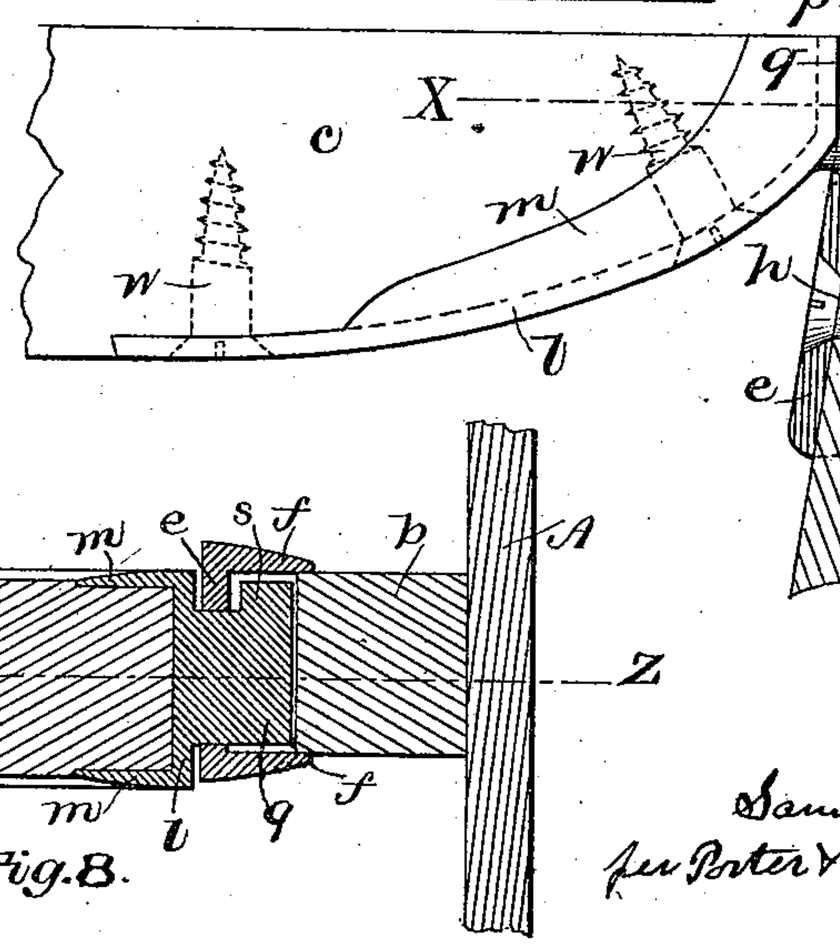


Fig. 6.

Fig. 9.





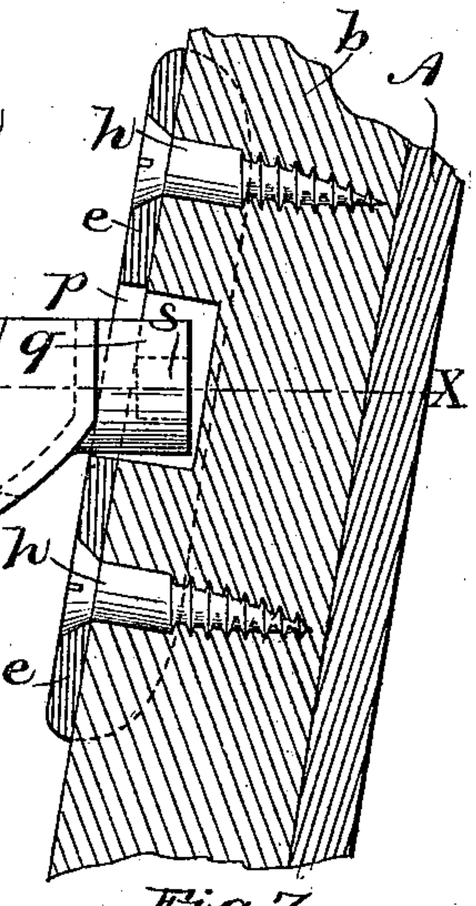


Fig. 8.

Fig. 7.

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(No Model.) 2 Sheets—Sheet 2.

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SLEIGH.

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Fig. 11.

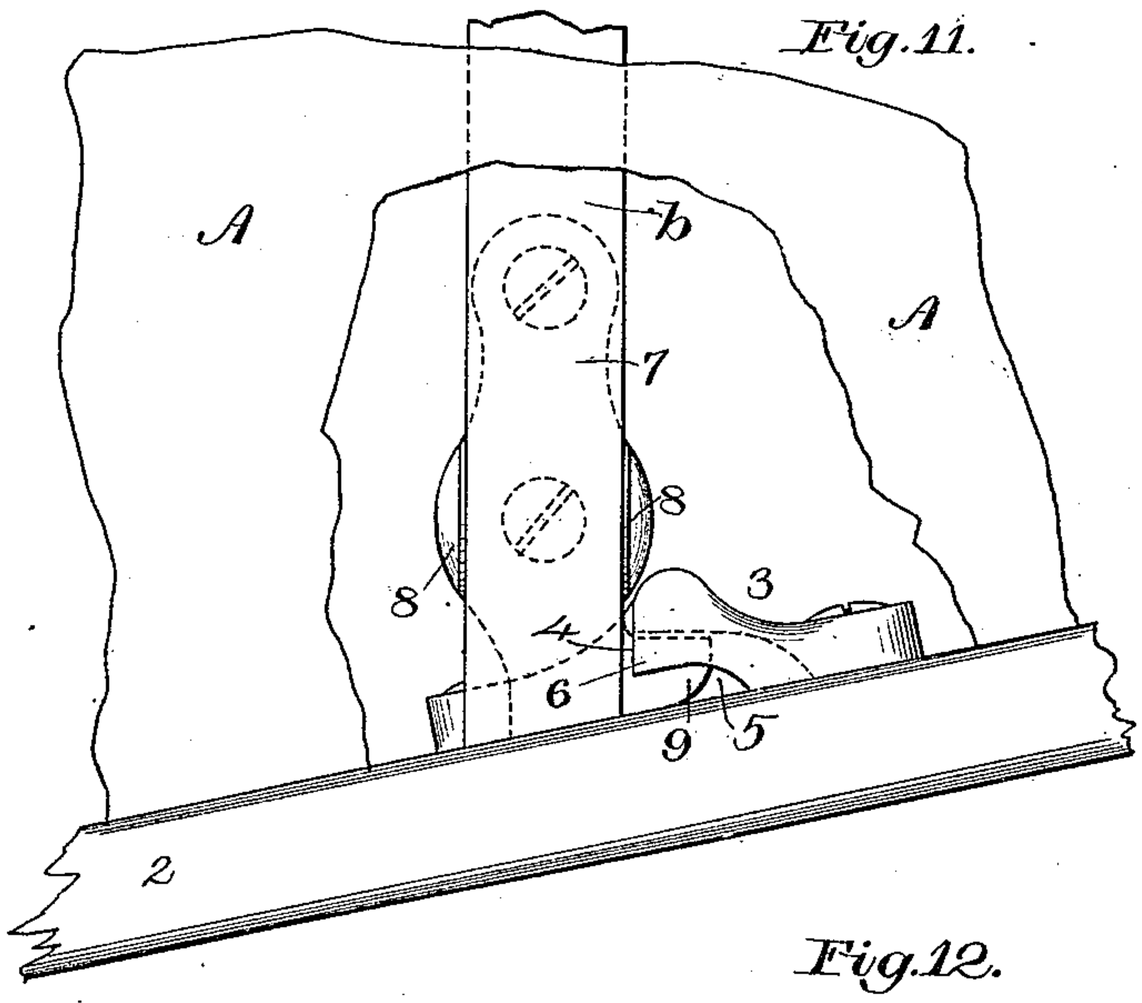


Fig. 12.

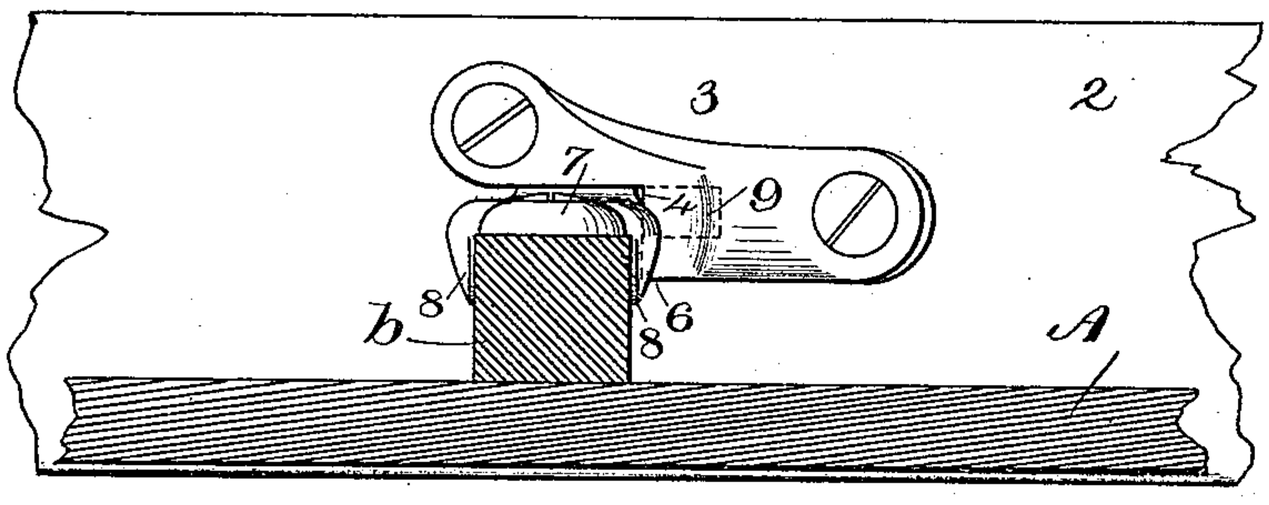


Fig. 13.

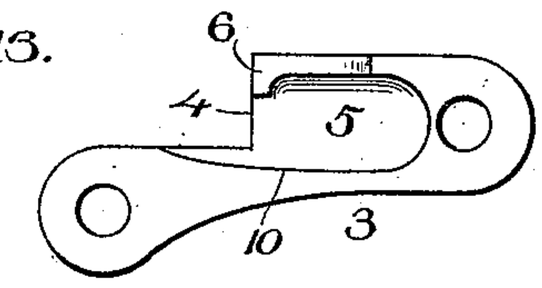


Fig. 14.

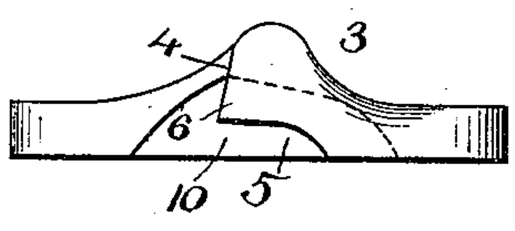


Fig. 15.

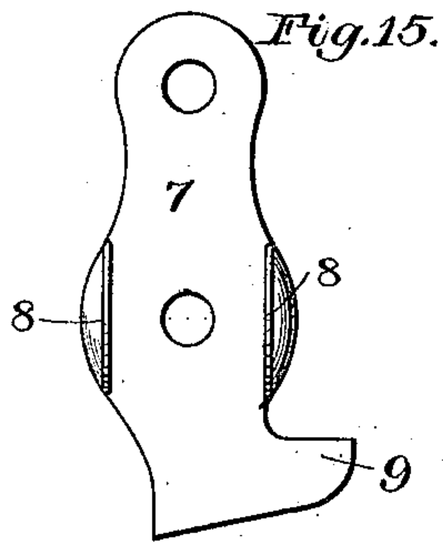


Fig. 16.

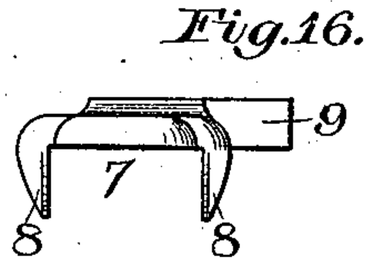
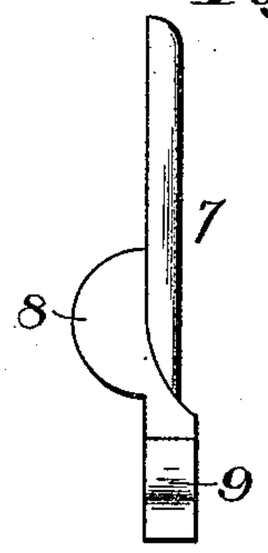


Fig. 17.



Witnesses
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Attys

UNITED STATES PATENT OFFICE.

SAMUEL R. BAILEY, OF AMESBURY, MASSACHUSETTS.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 355,855, dated January 11, 1887

Application filed January 5, 1885. Renewed October 29, 1886. Serial No. 217,521. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. BAILEY, of Amesbury, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Sleighs, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

This invention consists in connecting the seat-bar, usually termed the "riser-bar," with the side standards of the sleigh-body, usually termed the "risers," by a pivotal connection, instead of rigidly uniting said riser-bar and risers, as has been heretofore the practice, and also in rendering the seat removable from the body at will.

It further consists in the peculiar devices which secure the lower ends of the risers to the side rails of the sleigh-bottom in a manner to secure the top from either rising therefrom or moving rearward.

In said drawings, Figure 1 is a side elevation of a sleigh in which the parts embodying my invention are indicated by dotted lines, as will be explained. Fig. 2 is a detached elevation showing a section of a riser and bar with my invention thereto applied. Fig. 3 is a section taken on line W W, Fig. 2. Fig. 4 is an elevation of the riser-plate as viewed from the left in Figs. 2 and 3. Fig. 5 is a view like Fig. 4, but showing the plate as adapted for a pivotal removable seat. Fig. 6 is an end view of the locking-pivot formed on the end of the riser-bar plate and adapted to interlock in the plate shown in Fig. 5. Fig. 7 is a vertical section taken as on line Z Z, Fig. 8. Fig. 8 is a horizontal section taken as on line X X, Fig. 7. Fig. 9 is a section like Fig. 3, but showing a modification of the pivotal devices. Fig. 10 is a view similar to Fig. 2, but showing the same modification as Fig. 9. Fig. 11 is a detached side elevation showing the devices by which the top is secured to the bottom, as also portions of the parts thereby connected. Fig. 12 is a sectional plan view of the parts shown in Fig. 10. Fig. 13 is an inverted or under side plan view of the rail-plate. Fig. 14 is a side elevation of the same, taken as viewed in Fig. 11 or as viewed from the top in Fig. 13. Fig. 15 is an elevation of the riser-plate, taken as viewed in Fig. 11 or as viewed from the left in Fig. 17. Fig. 16 is a top plan view of the same. Fig. 17 is an edge elevation of the same, taken as viewed from the right in Fig. 15.

In said views, A represents the side panel of the sleigh-top. *b* is the riser, one of which is secured to each side panel, A. *c* is the riser-bar, on and to which the seat-bottom *d* is secured, the rear of said seat *d* being supported by a bar secured to the back of the sleigh, as shown by dotted lines in Fig. 1.

The bar *c* has heretofore been rigidly secured by mortises and tenons, or equivalents, to risers *b*, and hence the seat was not removable, and the consequent rigidity of the top rendered it liable to crack the side panels when the sleigh was moving upon an uneven surface, which caused a twisting strain upon the sleigh.

To risers *b*, I secure plates *e*, which are preferably formed with side supporting-flanges, *f*, and holes *g*, to receive the securing-screws *h* in said plates in an opening, *i*, enlarged at the top by an arc-like area, *j*, adapted to receive screw *k*, as shown in Fig. 2. A plate, *l*, is formed with side flanges, *m*, and screw-holes to receive the securing-screws *w*, and with a flattened hook, *x*, to enter slot *i* in plate *e*, and to engage the same, screw *k*, inserted in enlargement *j* of said slot, as shown in Fig. 2, serving to secure said hook *x* in said slot, yet allowing a pivotal action to a limited but necessary extent between said hook and plate *e*.

By securing the seat-bottom *d* to riser *c*, while it merely rests upon, without being permanently secured to, the bar supported by the sleigh-back, as stated, but to which bar it may be removably secured by a hook, bolt, or other detachable device, the seat may be removed from the sleigh by first removing the securing-screws *k*, which prevent the disengaging of hooks *x* from plates *e;* but when it is desired to render the seat removable, plate *e* is formed with a circular opening, *n*, having an extension, *p*, while plate *l* is formed with a circular extension, *q*, having a stud, *s*, Figs. 6, 7, 8, which, when seat *d* is raised vertically, will enter opening *n p* in plate *e*, and when the seat is lowered into the position shown in Figs. 1, 2 said stud *s* secures the parts in place, yet allows the requisite pivotal action thereof.

When it is not desired to render the seat removable, but only pivotal, the construction shown in Figs. 9, 10 may be adopted, in which plate *e* is formed with side ears, *t*, and plate *l* with a central ear, *u*, the two being united by pivot *v*, as there shown.

By rendering the seat removable the sleigh-tops may be "nested" together for transportation, thereby effecting a very great saving, as the tops are usually manufactured at a place remote from the "running part," and when the seats are a fixture they are bulky with but slight weight yet costing high in freight charges, besides greater risk of injury than when nested together.

For the purpose of securing the top to the bottom or running part beneath the seat, and so as to prevent the top from moving rearward, I secure to rail 2, on which the body rests, the plate 3, as shown in Figs. 11, 12, said plate being formed with a shoulder or offset, 4, a cavity, 5, beneath said offset, and a downwardly-projecting lip, 6, as shown in Figs. 13, 14. A plate, 7, preferably formed with ears 8, to embrace the sides of riser *b*, is secured thereto by screws, as shown by dotted lines in Fig. 11. Upon this plate is formed a hoop, 9, adapted to be inserted in cavity 5 of plate 3, between lip 6 and wall 10, as shown in Figs. 11, 12, the engagement of the hook between said lip and opposite wall serving to secure the side of the top in proper relation to the outer edge of rail 2, while its engagement with the roof of the plate above cavity 5 prevents the top from rising; and the contact of the vertical edge face of plate 7 with shoulder 4 secures the top from moving rearward, to which movement there is a constant tendency when in active use. When the top is thus secured to the bottom at the seat-risers, the front part of the top may be secured to the bottom by a hook or other readily-detached device, when by detaching the same and moving the top slightly forward to disengage hooks 9 of plate 7 from plates 3 the top is readily removed.

I claim as my invention—

1. In combination with the risers and riser-bar of a sleigh-top, coupling devices thereto respectively secured, and formed and adapted to interlock and secure the seat in position, and yet allow a limited pivotal action thereof, whereby the angle of the riser-bar *l* and the risers *b* may vary as force is thereto applied, substantially as specified.

2. In combination with the risers and riser-bar of a sleigh-top, coupling devices thereto respectively applied, and formed and adapted to interlock and secure the seat in position and to be disengaged at will, substantially as specified.

3. The combination of plate *e*, formed and adapted to be secured to the riser of a sleigh-top and formed with an opening to receive the interlocking device of plate *l*, and said plate *l* formed and adapted to be secured to the riser-bar, and having a projection or hook formed and adapted to interlock in the riser-plate, substantially as specified.

4. The combination of plate *e*, formed and adapted to be secured to riser *b*, and with a circular opening, *n*, with an extension, *p*, and the riser-bar plate *l*, formed with extension *q* and stud *s*, adapted to engage and interlock in said plate *e*, substantially as specified.

5. In combination with riser *b* and rail 2, plates 3 and 7, thereto respectively secured, and formed and adapted to interlock and secure the top from vertical or rearward displacement, substantially as specified.

6. The plates 3 and 7, formed and adapted to be respectively secured to the rail and riser of a sleigh, and with shoulder 4, cavity 5, and lip 6, formed in plate 3, and a hook, 9, formed on plate 7 to interlock therein, substantially as specified.

7. The combination, with the body-rail and top riser of a sleigh, of metallic plates formed and adapted to be thereto respectively secured, and with interlocking parts formed and arranged to be secured to the top to secure the top from vertical and rearward displacement when so interlocked, substantially as specified.

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Witnesses:
T. W. PORTER,
EUGENE HUMPHREY.