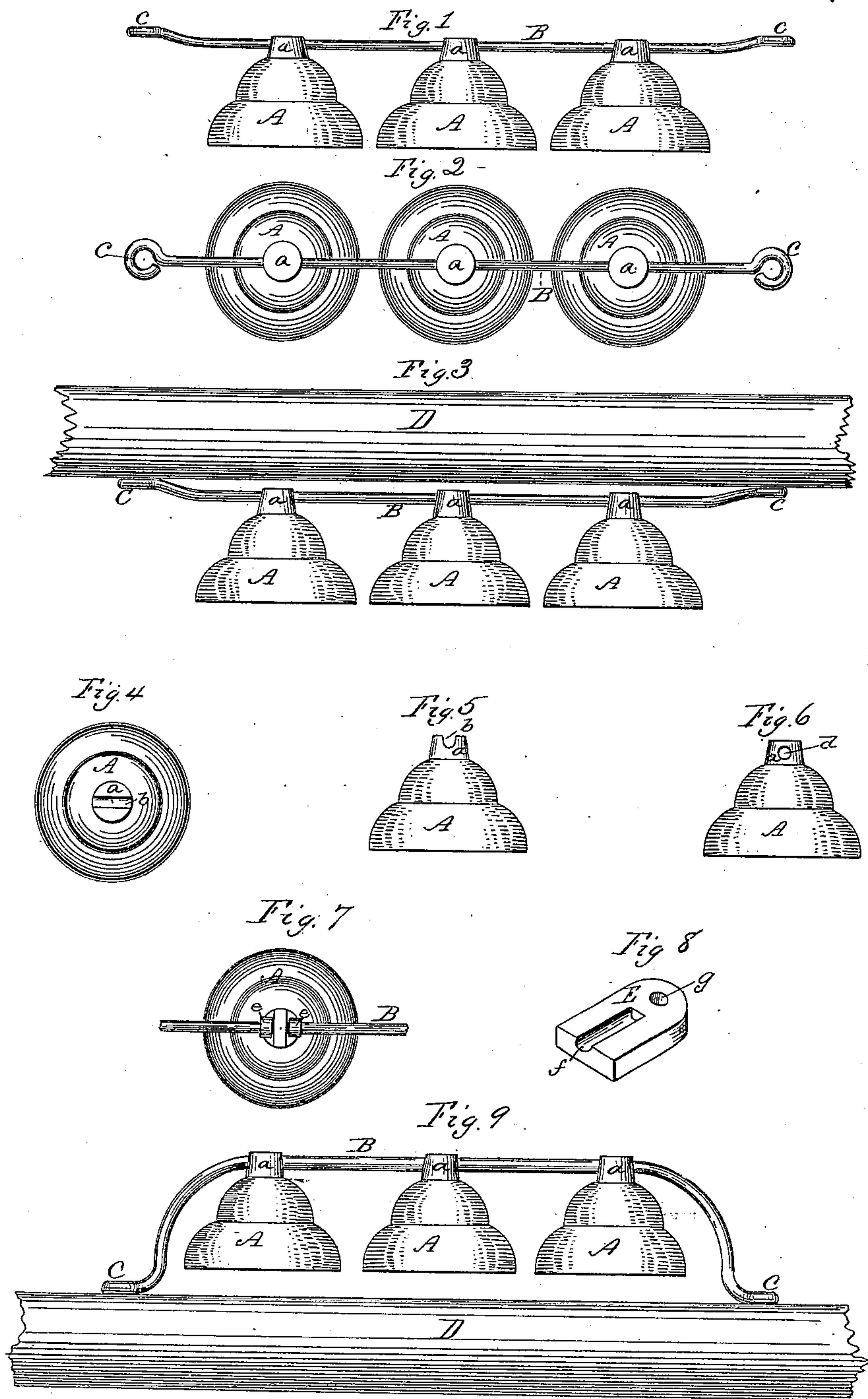


(No Model.)

W. E. BARTON.  
SLEIGH BELL ATTACHMENT.

No. 312,070.

Patented Feb. 10, 1885.



Witness  
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# UNITED STATES PATENT OFFICE.

WILLIAM E. BARTON, OF EAST HAMPTON, CONNECTICUT.

## SLEIGH-BELL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 312,070, dated February 10, 1885.

Application filed August 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WM. E. BARTON, of East Hampton, in the county of Middlesex and State of Connecticut, have invented new  
5 Improvements in Sleigh-Bell Attachments; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of  
10 the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the rod, showing the bells attached; Fig. 2, a top view of the same; Fig. 3, a side view of a shaft, showing the attachment and bells applied; Fig. 4, a top view  
15 of the shank of a bell, showing the groove for attachment to the shaft; Fig. 5, a side view of the same; Fig. 6, a side view of a bell-shank as pierced to slide onto the rod; Fig. 7, a top view  
20 of the shank, Fig. 6, attached to the rod; Fig. 8, a socket by which the bell may be attached; Fig. 9, a modification.

This invention relates to an improvement in attaching that class of sleigh-bells such as  
25 are usually applied to the under side of the shafts of the sleigh.

In the usual construction the bells are attached to a flat strap and that strap screwed or nailed to the shaft. The strap, if of metal,  
30 is necessarily thin, and affords but a slight support for the bell. In the case of a leather strap the support is still more slight; but in either case the bell is held firm and rigid against the shaft and with no elasticity in the strap itself,  
35 for the reason that the strap must be secured at points between the bells. Again, the bells must be secured by riveting of some character, which makes the attachment expensive, and unless it be done in the most careful and  
40 strongest manner the bells are liable to detachment, and under the best attachment they frequently break from their connection because of the exposed position of the bell. Again, the bells, being brought into firm contact with the shaft, lose a considerable amount  
45 of vibration, which they would have if suspended free from the shaft.

The object of my invention is an attachment which shall be firm, yet possess a considerable  
50 degree of elasticity, and so that the bells themselves will not take a solid bearing upon the shaft, which they must do in attachments

as more generally applied; and the invention consists in the construction hereinafter described, and more particularly recited in the  
55 claims.

The bells A may be of any of the usual or known forms. B is a wire rod, preferably made from steel, in length corresponding to the number of bells to be attached. At its  
60 ends it is best bent to form an eye, C, through which a screw may be inserted to attach it to the shafts. Between its ends the rod is preferably slightly curved downward, so that while taking its bearing at its two ends it  
65 will be substantially free from the shafts between those rods, as seen in Fig. 3, D representing the shaft.

To attach the bells to the rod, they may be cast with a shank, *a*, having a groove, *b*, in its  
70 upper end, into which the rod may be set, as seen in Fig. 5, and there secured by solder, as shown in Fig. 5; or the shank may be made flat, as seen in Fig. 6, pierced as at *d*, through which the rod may be introduced. Then when  
75 on the rod a collar, *e*, may be fixed each side the shank of the bell, and so as to leave the bell free thereon; or it may be soldered thereto.

When attached to the shaft, the rod possesses a considerable amount of elasticity, supports  
80 the bells without hard or rigid contact with the shaft, gives to them a certain freedom, and prevents the attachment from disturbing the natural vibration of the bell. The rod made from wire costs no more than the usual strap.  
85 The improvement, therefore, adds nothing to the cost of the attachment. A force applied to the bells which would accidentally detach a bell in the usual construction will in this case be met by the elasticity of the rod, which,  
90 yielding under such force, will avoid such detachment of the bell. An increased freedom is given to the rod by forming the eye in one end and providing a socket, E, for the other, as seen in Fig. 8, the said socket having a  
95 groove, *f*, in its upper surface, and provided with a screw-hole, *g*, by which it may be secured to the shaft. When secured to the shaft, one end of the rod is passed into the groove *f*, then the other end of the rod secured, as be-  
100 fore, thus rigidly attaching one end of the rod to the shafts, but leaving the other free for slight longitudinal movement under the springing operation of the rod. The socket may be ap-

plied to both ends of the rod, leaving the rod straight.

By the employment of the wire rod the bells may be readily arranged upon the top of the shaft, if desired, as seen in Fig. 9, the ends of the rod bent downward so as to raise the central portion, to leave the bells free between the shaft and the rod.

I claim—

10 1. The combination of the elastic rod B, fitted for attachment to the shaft, with the bells constructed with a groove in the upper end of their shank to embrace said rod, as a means

for securing said bells to the rod, substantially as described.

2. The combination of the rod B, one end formed with an eye for fixed attachment of the rod, a socket in which the other end will rest free for longitudinal movement, and one or more bells attached to said rod, substantially as described.

WILLIAM E. BARTON.

Witnesses:

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