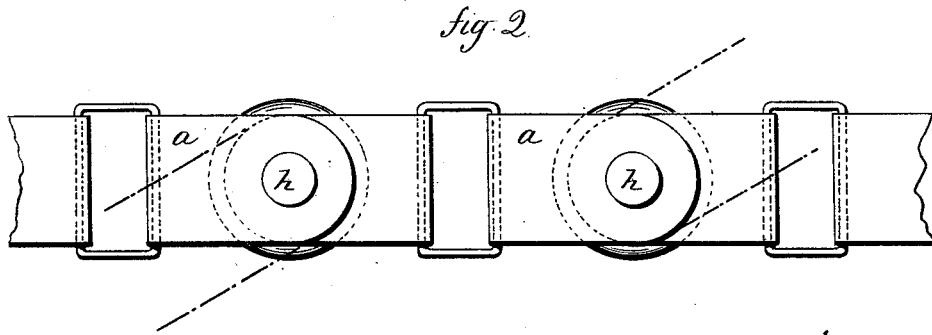
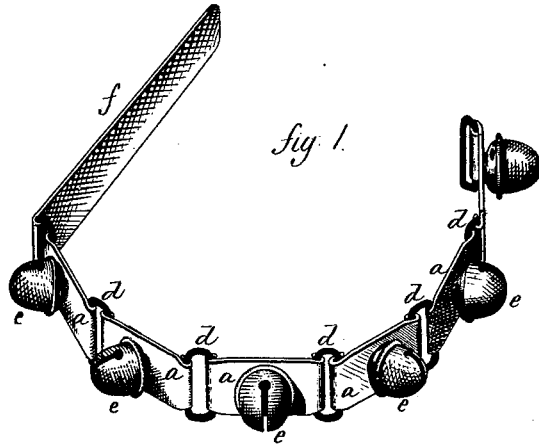


S. A. CHAPMAN.  
Stringing Sleigh-Bells.

No. 197,329.

Patented Nov. 20, 1877.



Witnesses.  
*J. A. Chumley*  
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*Wm. C. Smith*

# UNITED STATES PATENT OFFICE.

SAMUEL A. CHAPMAN, OF WATERBURY, CONNECTICUT.

## IMPROVEMENT IN STRINGING SLEIGH-BELLS.

Specification forming part of Letters Patent No. **197,329**, dated November 20, 1877; application filed June 30, 1877.

*To all whom it may concern:*

Be it known that I, SAMUEL A. CHAPMAN, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Stringing Sleigh-Bells; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, perspective view; Fig. 2, back view of a transverse jointed strap.

This invention relates to an improvement in the method of stringing sleigh-bells. In the usual method the bells have been attached to a leather or other flexible strap. The wear on the strap is very great, and it is easily defaced.

The object of this invention is such a construction of straps as will prevent such wear, and be more durable and less liable to injurious effects of weather; and it consists in the arrangement of the bells on a series of connected metallic plates, the connections forming, substantially, a hinge between the sections.

A series of plates, *a*, in number according to the length of the strap, and preferably for a single bell to each section, are made from thin metal.

The successive sections *a* are connected by short links *d*, which form hinges between the sections, so as to give to the structure the nec-

essary flexibility. The connection is made by bending the ends of the strap around one side of the links; but the connections may be differently made, it only being essential that there be substantially a hinge-joint between the sections.

The bells *e* are riveted or otherwise attached to the sections, and at the ends are provided with a strap, *f*, or other suitable device for connecting or attaching the ends.

In some cases it is desirable that the strap should have some transverse flexibility. To do this more or less of the plates *a* are made in two parts, one part overlapping the other, and with a vertical pivot, *h*, as seen in Fig. 2. The pivot may be the shank, by which the bell is attached. This will allow the parts to turn in a transverse plane and give the requisite amount of transverse flexibility.

The whole may be made from non-corrosive metal or plated, so as not to be injured by exposure to the weather, or subject in any way to the usual defacing of the leather or soft strap.

I claim—

As an improved manufacture, a string of sleigh-bells, consisting of a series of hinged metal plates with bells attached thereto, and provided with suitable end fastenings, all substantially as described.

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Witnesses:

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