

J. A. LE CATO.
GOVERNOR SPRING.
APPLICATION FILED SEPT. 10, 1914.

1,140,271.

Patented May 18, 1915.

Fig. 1.

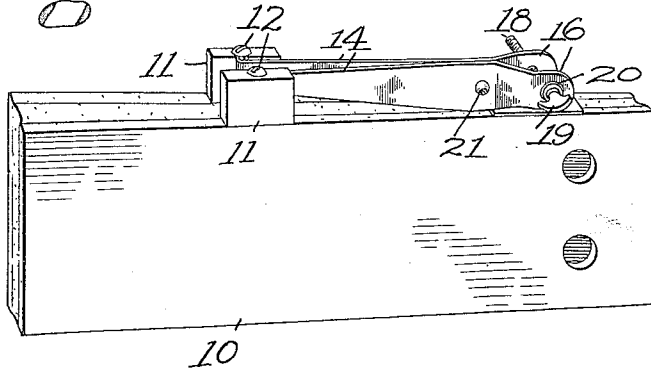


Fig. 2.

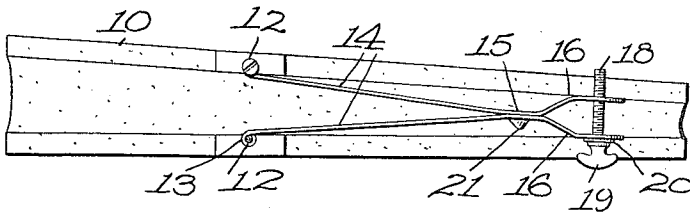
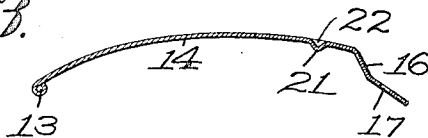


Fig. 3.



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UNITED STATES PATENT OFFICE.

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GOVERNOR-SPRING.

1,140,271.

Specification of Letters Patent.

Patented May 18, 1915.

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To all whom it may concern:

Be it known that I, JOHN A. LE CATO, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Governor-Spring, of which the following is a specification.

This invention relates to a spring for a pneumatic and although capable of general use, it is designed for use on pneumatic governors for musical instruments to take the place of the springs commonly known as organ springs.

The principal objects of this invention are to provide a construction in which the tension can be adjusted easily and rapidly without dismounting the spring; to provide a construction in which the adjustment can be accomplished by means other than hand manipulation of the leaves; and to provide a spring in which if one of the leaves breaks or becomes distorted only that one need be replaced.

The invention also involves features of construction as will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of a pneumatic governor with a preferred form of this invention applied thereto; Fig. 2 is a plan of the same; and Fig. 3 is a sectional view of one of the leaves of the spring.

The invention is shown as applied to an ordinary governor pneumatic 10 which is provided with the usual blocks 11 for the pins 12 which pass through the eyes 13 of the spring leaves 14.

It is the ordinary practice to rivet together the ends of the two leaves of the springs of this character and when it is necessary to change the tension the spring has to be removed and manipulated by hand so as to increase or decrease the tension as might be necessary. This is an awkward, inexact method of regulating the tension. With my improved spring all this is avoided as it is only necessary to turn an adjusting screw and the tension can be increased or decreased to any desired degree of nicety. Moreover the parts are hinged together in such a way that the two elements are separate and readily assembled and detached and one part can be replaced without replacing the other.

The leaves instead of being connected to-

gether at their ends are provided with a hinge at the point 15 and they extend beyond this hinge to form integral extensions 16. These extensions are separated from each other and one of them is provided with a slot 17 through which passes an adjusting screw 18, this screw being screwed into the other projections 16. The screw is shown as having a wing head 19 and a collar 20 under it. The way in which the two leaves are hinged together is also a feature of this invention, both of the leaves being provided with a projection 21 on one side leaving a hollow depression 22 on the other side. The two leaves of the spring being arranged to constitute rights and lefts, it will be seen that the projection on one spring enters the depression on the other and constitutes a hinge. On account of the parts being held together by a screw, this can be carried out in a practical way and there is no danger of the parts becoming separated from each other in use. They are much more easily assembled and with less expense than would be the case if they were riveted together as is common practice. In addition to this if one of the parts becomes broken or distorted it can be discarded without spoiling the whole spring.

Although I have illustrated and described only a single form of the invention, I am aware of the fact that many modifications can be made therein without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details of construction herein described, but

What I do claim is:—

1. As an article of manufacture, a double leaf spring for a governor pneumatic having means connected with the two leaves thereof for adjusting the tension of the spring.

2. As an article of manufacture, a spring for a governor pneumatic comprising two spring leaves pivoted together and both extending beyond the pivot, and means connected with the extending portions of said leaves for regulating the tension of the spring.

3. In a spring for a governor pneumatic or the like, the combination of a pair of spring leaves pivoted together and extending beyond the pivot, said leaves being separated beyond the pivot, and an adjusting device for connecting the separated ends,

whereby the tension of said spring can be adjusted.

4. In a spring for a governor pneumatic, the combination with a pair of spring leaves
5 pivoted together and both projecting beyond the pivot, the two projecting ends of said spring being separated from each other, one having a slot therein, of a screw extending through said slot and screwing into the
10 other projecting end for regulating the tension of the spring.

5. In a spring for a governor pneumatic or the like, the combination of a pair of spring leaves pivoted together and extending
15 beyond the pivot, said leaves having respectively a projection and indentation constituting the pivot, and an adjusting device

for connecting the ends, whereby the tension of said spring can be adjusted.

6. In a spring for a governor pneumatic, 20 the combination of a pair of spring leaves, one having a projection thereon and the other an indentation, the projection extending into the indentation and constituting a pivot, and means beyond said pivot for 25 adjusting the spring tension of said leaves.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

JOHN A. LE CATO.

Witnesses:

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I. M. ENNIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."