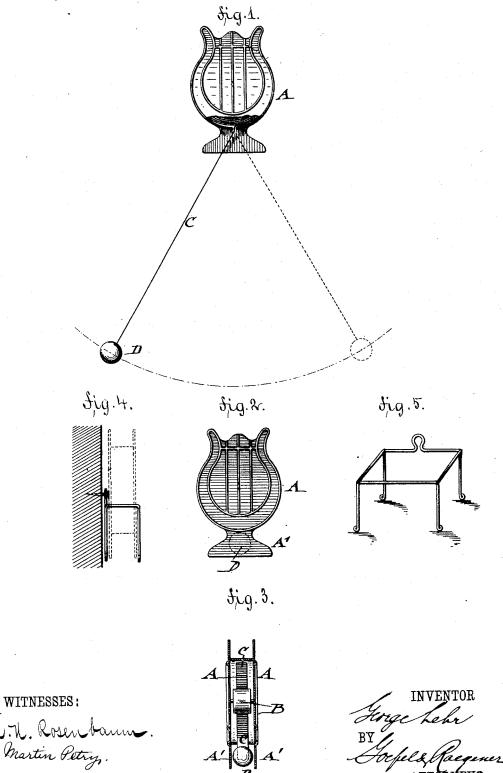
## G. LEHR.

## POCKET METRONOME.

No. 342,446.

Patented May 25, 1886.



N. PETERS, Photo-Lithographer, Washington, D. C.

ATTORNEYS.

## United States Patent Office.

GEORGE LEHR, OF NEW YORK, N. Y.

## POCKET-METRONOME.

SPECIFICATION forming part of Letters Patent No. 342,446, dated May 25, 1886.

Application filed June 6, 1884. Serial No. 134,002. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LEHR, of the city, county, and State of New York, have invented certain new and useful Improvements 5 in Pocket-Metronomes, of which the following is a specification.

The metronomes heretofore in use for indicating the movements of pieces of music are complicated and expensive, and cannot be

10 carried about for general use.

The object of this invention is to furnish a cheap and simple pocket-metronome by which the movements required for different pieces of music can be quickly determined; and the in-15 vention consists of a pocket-case provided with an interior spring-barrel and a narrow band wound around the same in the case, said band being provided at its outer end with a small weight that is retained between side plates of 20 the case.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my improved pocket-metronome, shown in position for use. Fig. 2 is a side view of the 25 same; Fig. 3, a transverse section of the same; and Figs. 4 and 5 are details of a wire frame for supporting the same on the wall.

Similar letters of reference indicate corre-

sponding parts.

A in the drawings represents a metallic case of cylindrical shape, which is provided at its interior with a spring-barrel, B, the spring of which is attached to a fixed center shaft. the spring-barrel is applied a narrow band or 35 tape, C, of suitable length, which extends through a slot at the circumference of the case A, to the outside of the same, as the well-known spring tape-measures in general use. To the outer end of the tape C is attached a ball-

40 shaped weight, D, of suitable size. The tape C is graduated, the graduations being determined by the different lengths of pendulum corresponding to the different movements required. The outside of the case A is prefer-

45 ably made in the shape of a lyre, the ballshaped weight D being retained close to the slot of the case between extension plates A' of the side walls of the case A, so as to be protected when the metronome is carried in the pocket.

When it is desired to use the metronome, the tape C is pulled out of the case until the number appears that corresponds to the movement of the piece of music to be played. The tape C is then retained in this position, and 55 the case held in the hand, and a pendulum motion imparted to the weight and tape at the exterior of the case.

The oscillations of the pendulum formed by the weighted tape indicate the time or move- 60 ment of the piece of music. The longer the tape the slower will be the oscillations of the pendulum and the slower the movement of the piece of music. The shorter the tape the quicker will be the oscillations of the pendu- 6: lum C D and the quicker the movement of the piece of music. In this manner avery simple and convenient pocket device for indicating the movement of a piece of music is obtained, which forms a handy means for conductors 7c and teachers of music to determine at any time and place the proper movement of a musical composition.

The case may be attached either on the wall or placed on any other point of support, as 75 shown in Figs. 4 and 5.

Having thus described my invention, I claim as new and desire to secure by Letters Patent-

A pocket-metronome consisting of an inclosing-case having a slot at one point of the cir- 80 cumference and extension guard - plates at both sides of said slot, an interior spring-barrel and a tape attached to said spring-barrel, and a weight applied to the outer end of the tape and retained between the guard-plates 85 when not used as a pendulum, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GEORGE LEHR.

Witnesses:

PAUL GOEPEL, SIDNEY MANN.