

(No Model.)

B. E. WOLLENHAUPT.
MUSICAL INSTRUMENT.

No. 563,113.

Patented June 30, 1896.

Fig 1

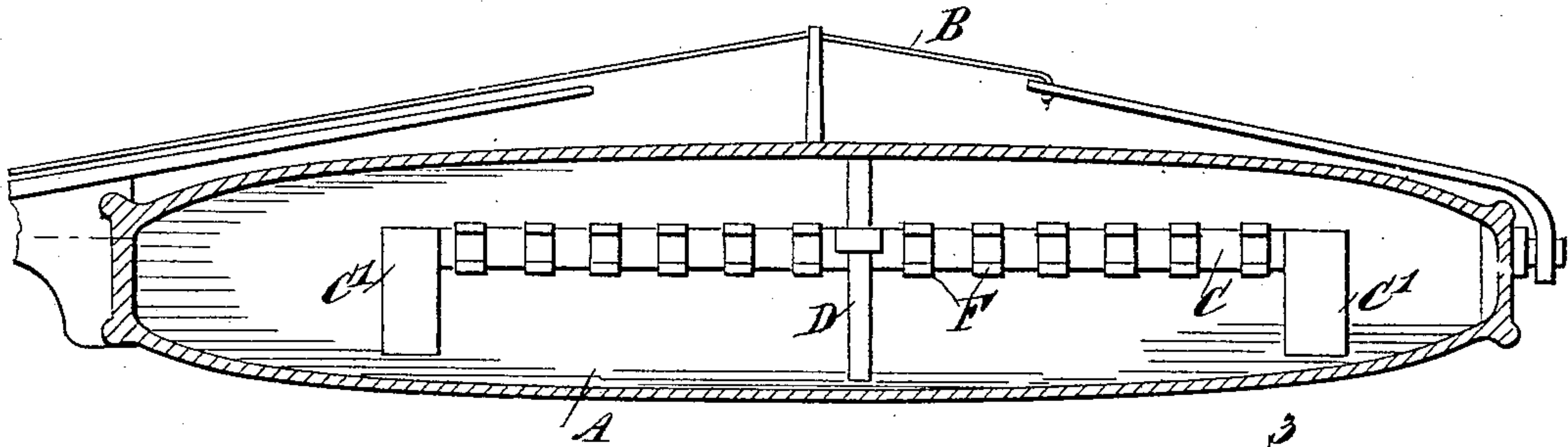


Fig 2

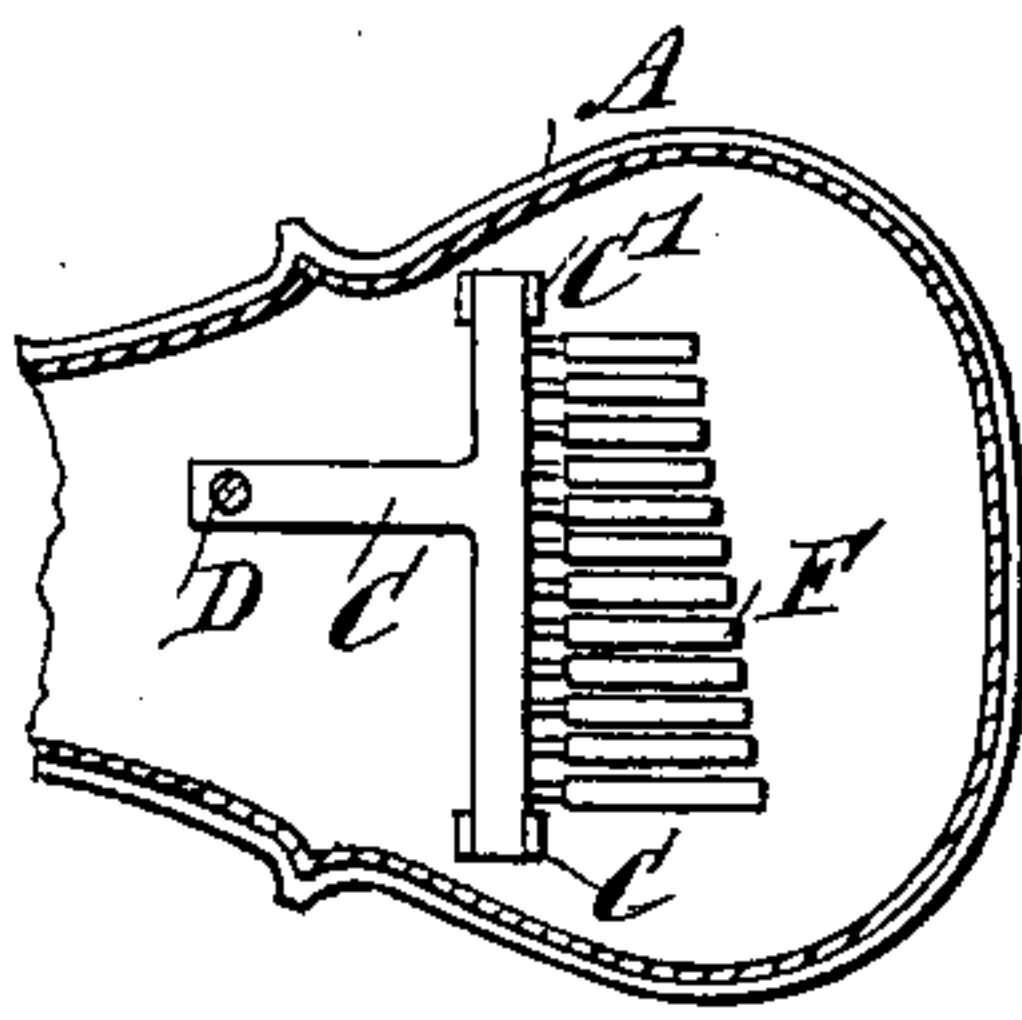
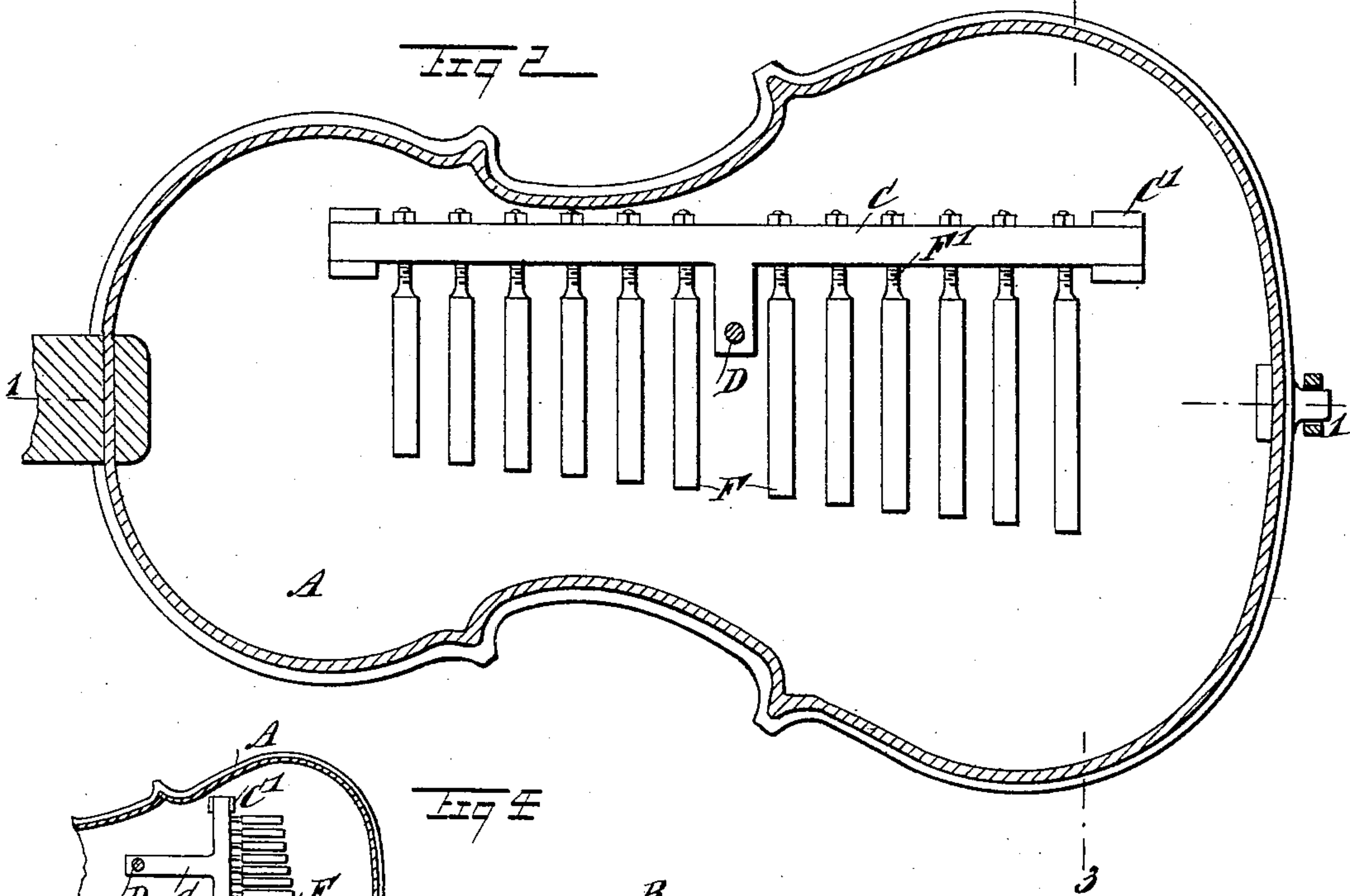


Fig 4

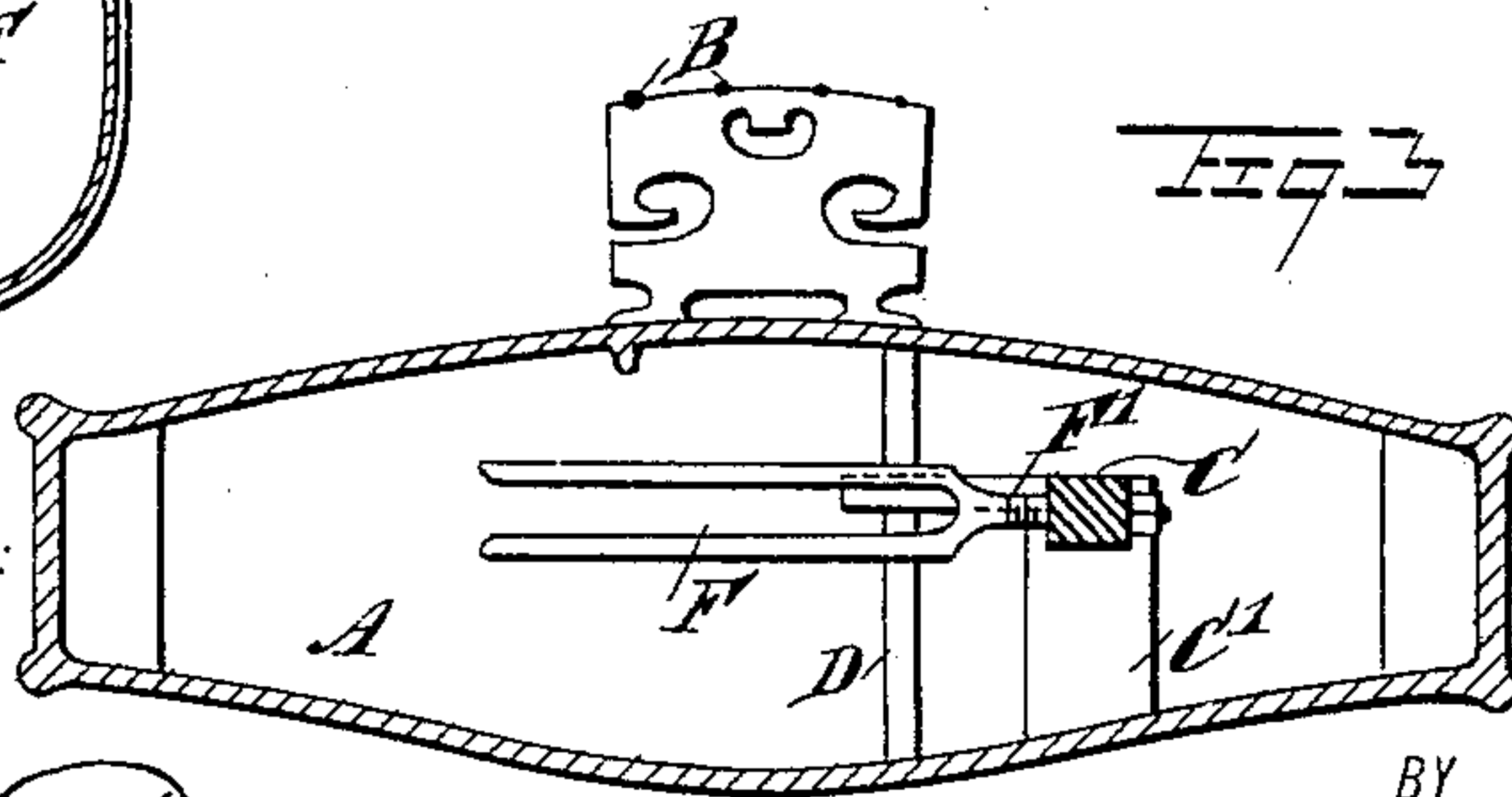


Fig 5

WITNESSES:

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BRUNO EMIL WOLLENHAUPT, OF NEW YORK, N. Y.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 563,113, dated June 30, 1896.

Application filed October 2, 1895. Serial No. 564,385. (No model.)

To all whom it may concern:

Be it known that I, BRUNO EMIL WOLLENHAUPT, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Musical Instruments, of which the following is a full, clear, and exact description.

The invention relates to violins and other musical instruments, such as shown and described in the Letters Patent of the United States No. 532,621, granted to me on January 15, 1895, and the application for Letters Patent for musical instruments, Serial No. 561,147, filed by me on August 31, 1895.

The object of the present invention is to provide certain new and useful improvements in musical instruments, such as violins, violas, bass violins, guitars, citherns, mandolins, &c., and whereby the volume and duration of tone is greatly increased without rendering it more difficult to play the instrument.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement as applied on a violin. Fig. 2 is a sectional plan view of the same. Fig. 3 is a cross-section of the same on the line 3 3 of Fig. 2, and Fig. 4 is a reduced sectional plan view showing the tuning-forks differently arranged in the body.

The musical instrument on which the device is applied is represented in the drawings as a violin having the usual body A, carrying the outside strings B, and in the body A is arranged a sounding-support C, attached at its ends to the posts C', set on the bottom of the body, the said support C being connected with the post D. On the support C are secured the shanks F' of tuning-forks F, extending with their prongs within the space formed between the bottom and top of the violin. The said tuning-forks are preferably twelve in number and represent an octave of twelve half-tones, extending from "C" to "B." It is understood, however, that the number of tuning-forks may be increased or

diminished and the pitches thereof varied according to the nature of the instrument on which the device is applied.

The tuning-forks arranged within the body of the musical instrument form a sympathetic vibrating device, and the said tuning-forks will sound sympathetically and in unison with the corresponding strings B played at the time by the performer. Thus, the tuning-forks respond to each corresponding tone played, thereby reinforcing the volume of sound usually produced by musical instruments.

By having the support C connected with the post D of the instrument as well as with other parts of the body, it is evident that the sounds caused by the strings when played and traveling along the body of the instrument pass to said support to cause a vibration of the tuning-forks, so that the latter are sounded in harmony with the strings played. Furthermore, the vibrations of the sounds within the body of the instrument and acting on the prongs of the tuning-forks cause the latter to sound.

The support C is preferably arranged longitudinally within the body of the violin, but it may be arranged transversely, as illustrated in Fig. 4. It is understood, however, that the support is connected by an extension with the post of the instrument.

If desired, a damping device may be provided for damping the tuning-forks when ever desired, it being understood that such damping device will be similar to the one shown and described in the Letters Patent above referred to. It is further understood that the sympathetic vibrating device in the shape of tuning-forks does not render the instrument difficult to play, as the performer manipulates the strings B in the same manner as on ordinary instruments.

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

1. A stringed musical instrument of the class described, provided with a sounding-support located in the hollow of its body, and a series of tuning-forks independently secured to said support, substantially as described.

2. A stringed musical instrument of the

class described, provided with a sounding-support having rigid connection with the body of the instrument, and graduated tuning-forks secured with their shanks in the said
5 sounding-support, substantially as shown and described.

3. A stringed musical instrument, provided within its body with a sounding-support, connected with the post of the instrument, and
10 graduated tuning-forks whose shanks are secured to said support, substantially as described.

4. A stringed musical instrument, provided within its body with a sounding-support having an extension connected with the post of
15 the instrument, and graduated tuning-forks

whose shanks are secured to said support, substantially as described.

5. A stringed musical instrument, provided within its body with a sounding-support, and 20 a series of tuning-forks secured to said support and graduated according to a chromatic scale, substantially as described.

6. A stringed musical instrument provided within its body with a sounding-support engaging the post of the instrument, and a sym- 25 pathetic vibrating device secured to said sounding-support, substantially as described.

BRUNO EMIL WOLLENHAUPT.

Witnesses:

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