N. & M. Schneider,

Tuning Musical Instruments,

No. 4,212, Patented Sept. 27, 1845.

Fig: 1.

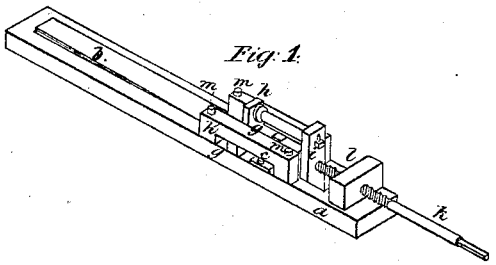

Fig: 2.

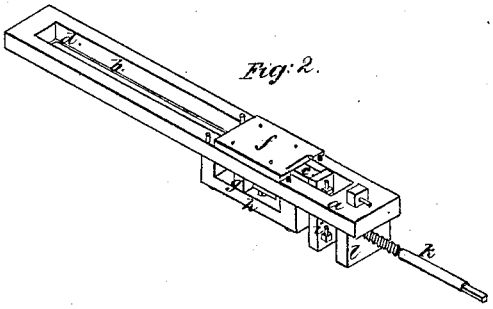

Fig: 3.

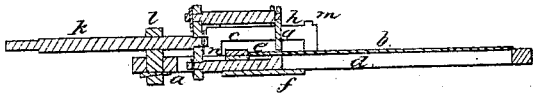

Fig: 4

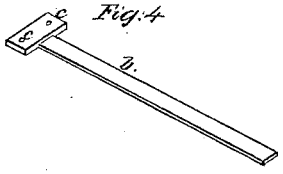

Fig: 5.

UNITED STATES PATENT OFFICE.

MARTIN SCHNEIDER AND NIKLAUS SCHNEIDER, OF NEW ORLEANS, LOUISIANA.

TUNING REEDS OF ACCORDIONS, &c.

Specification of Letters Patent No. 4,212, dated September 27, 1845.

To all whom it may concern:

Be it known that we, MARTIN SCHNEIDER and NIKLAUS SCHNEIDER, of the city and parish of New Orleans, in the State of Louisiana, have invented a new and useful Method of Tuning the Reeds of Accordions and other Instruments Having Metallic and other Reeds, and that the following is a full, clear, and exact description of the principle or character thereof which distinguishes it from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of my improvement as applied to the reed; Fig. 2, a perspective view of the same reversed, and Fig. 3 a longitudinal section.

The same letters refer to like parts in all the figures.

Accordions, seraphinas and all other instruments deriving their tones from the vibrations of metallic reeds have been seriously objected to on account of the difficulty of tuning them, this having been effected heretofore by filing, scraping or otherwise reducing the thickness of the reeds; and in the Aeolian attachment this objection has been more marked than when the instruments have been used separately, as the tendency of the piano to fall by the tension of the strings in a short time destroys the accord of the two; but by my improvement this difficulty is so far obviated as to enable the performer to tune the Aeolian attachment to the piano with as much facility as the tuning of a harp or guitar.

The nature of our invention consists in gripping the reed between two sliding blocks of metal connected together and capable of being operated by a screw or other analogous device so that by sliding back or forth the length of the vibrating portion of the tongue or reed is increased or decreased and hence the tone lowered or raised by the mere turning of a screw.

In the accompanying drawing, (*a*) represents the plate of an instrument, to which one end of the tongue or reed (*b*) (represented separately at Fig. 4) is attached by screws (*c*, *c*), passing through holes in the enlarged end of the reed and taking into the plate (*a*), which is slotted in the usual manner as at (*d*), to admit of the vibration of the reed. This slot (*d*) is not, as heretofore, made shorter than the reed, but extends back of it for the reception of the lower gripping block (*e*) which slides in the slot and between the reed and a plate (*f*) attached to the bottom of the plate (*a*). The upper gripping block (*g*), of the form represented at Fig. 5, is placed above the reed and borne down on it by means of the two bridles (*h*, *h*) attached to the upper face of the plate (*a*), and with the surface thereof constituting slides for the ends (*g'*, *g'*) of the upper gripping block to slide in. These two gripping blocks are fastened into the ends of a connecting piece (*i*), in which the screw (*k*), which passes through the standard (*l*), is swiveled, so that by the turning of the said screw the gripping blocks are moved back and forth to effect the tuning of the reed. The upper surface of the lower gripping block (*e*) is a little elevated at the forward part on which the reed rests, and the heel or back part of the reed, where it spreads out to form the attachment to the bed plate, rests on a piece (*n*) extending across the slot and cast with the plate, to guide the gripping block and prevent any tendency to force up the reed out of its proper line. And by reference to the drawings it will be seen that the bridles (*h*, *h*) are attached to the bed plate (*a*) by means of screws (*m*, *m*), and the pedestals of these bridles are sufficiently short so that when required the upper gripping block (*g*) can be forced down by turning the screws (*m*, *m*), and thus insure the gripping of the reed, which is very important to insure a good and clear tone.

It will be obvious that instead of attaching the reed to the plate on each side of the slot to give free play to the lower gripping block, there may be two slots, one for the vibrating part of the reed, and the other extending from the back end of the reed sufficiently far back to admit of the connection of the upper and lower gripping blocks, the latter being curved to pass under the solid part of the plate (*a*) between the two slots. And instead of having the two blocks grip the reed by means of the plate (*f*) and the two bridles (*h*, *h*), the two can be connected by a clamp screw back of the reed; in short

various modifications can be made of the mode of attachment so long as the principle above explained is retained.

What we claim as our invention and desire to secure by Letters Patent is—

The method above described of tuning the tongues or reeds of accordions or seraphinas and other instruments, deriving their tones from the vibration of metallic reeds, by means of movable clamps which grip the reeds and embrace a part of the plate to which the reeds are attached and admit of sliding or moving to increase or decrease the length of the vibrating part of the reed and thus regulate the tone, as herein described.

MARTIN SCHNEIDER.
NIKLAUS SCHNEIDER.

Witnesses to Martin Schneider's signature:

CHS. M. KELLER,
J. J. GREINOUGH.

Witnesses to Niklaus Schneider's signature:

JOHN AIDILE,
FR. WEIL.