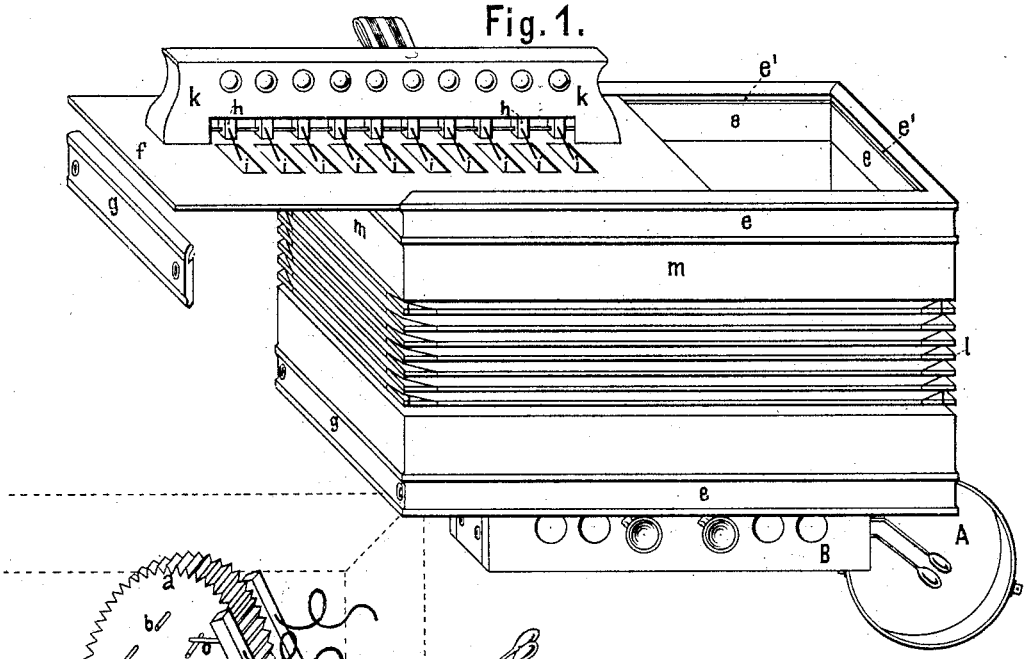
W. SPAETHE.

Accordion.

No. 210,217. Patented Nov. 26, 1878.

Fig. 1.



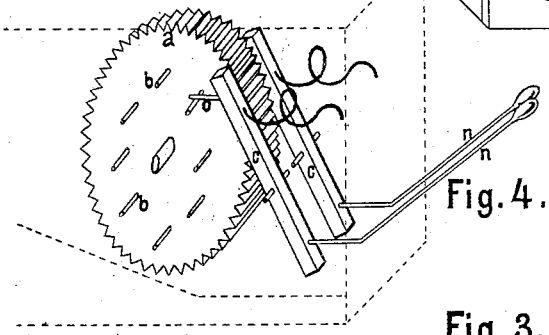


Fig. 4.

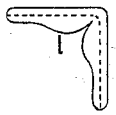
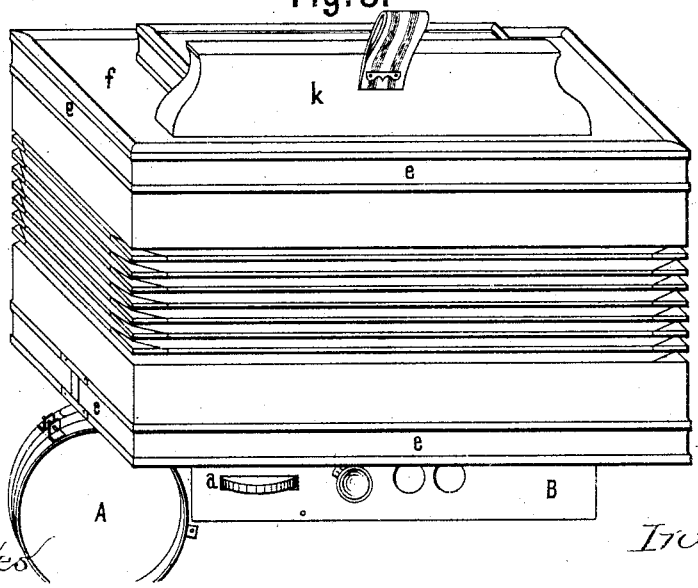


Fig. 2.

Fig. 3.



Witnesses

W. Friedewald

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UNITED STATES PATENT OFFICE.

WILHELM SPAETHE, OF GERA, GERMAN EMPIRE.

IMPROVEMENT IN ACCORDIONS.

Specification forming part of Letters Patent No. **210,217**, dated November 26, 1878; application filed July 27, 1878.

To all whom it may concern:

Be it known that I, WILHELM SPAETHE, of Gera, German Empire, have invented an Improved Accordion with Drum Apparatus, of which the following is a specification:

This invention relates to improvements in accordions which have the object of better maintaining air-tight the bellows, the frame parts, and the valves of the instrument, and of providing it with a drumming attachment.

The parts of accordions which are made of wood are exposed to shrinking, especially in hot climates, and on the other hand to a swelling when the air is damp. In both cases they are apt to become leaky, whereby the instrument may be impaired to such an extent as to be useless.

For obviating this inconvenience I arrange the wooden top and also the bottom of the instrument as shown by Figure 1 of the annexed sheet of drawings.

The three ledges *c c c*, which constitute fixed parts of the top frame *m*, are provided on the inside with a groove, *c'*, lined with soft leather. In this groove the cover *f* slides freely. *g* is a loose piece which closes the rim of the top frame on the fourth side when it is screwed to the two long ledges *c c*. This piece *g* is also provided with a groove lined with leather for producing a tight joint on the fourth edge of the cover *f*. Instead of fixing the leather in the groove *c'*, it may, if preferred, be glued to the edge of the cover *f*.

It is evident that with this arrangement, when suitably and accurately executed, the cover may shrink or swell without causing its joints to become leaky. The bottom part of the instrument is constructed in the same manner.

The keys *h* consist of wooden levers, to which the valves *i* are attached. They are arranged within the hollow key-board *k*, and turn on a wire fixed at its ends and passing through all the levers. In the ordinary arrangement of the keys the said wire simply passes through holes drilled into the wooden levers, in consequence whereof the keys are very apt to stick whenever they are exposed to dampness. In my improved accordion, however, each hole is lined with a metallic bushing, which allows the key always to be moved with the same facility.

The valves *i*, by which the sound-holes are opened and closed, have heretofore generally been made of wood or pasteboard, and have therefore also been easily subject to alteration in shape by atmospheric influences, which prevents the proper closing of the same. I therefore make these valves of sheet metal, stamped into suitable shape, and lined, as usual, with leather.

The corners of the bellows of an accordion being the part of the instrument which is most exposed to become damaged, as well from the inside by the air-pressure as from the outside by abrasion, I provide them with angular metallic mountings *l*, Figs. 1 and 2. These mountings are stamped out of thin sheet metal and fixed to the bellows by pressing small indentations into them from above and below.

The drumming apparatus consists of a drum, A, Fig. 3, a wheel, *a*, provided on both sides with pins, projections or teeth *b*, Fig. 4, and two levers, *c c*, to which are fixed the drum-sticks *n n*. The drum is attached to the lower part of the instrument, and, by preference, in a manner as to be easily removable. The wheel *a* is journaled in the bass-box B, or, if preferred, in a separate case fixed to the bottom part of the accordion, and its rim, which is notched all around, projects outward through a slit in the said box or case. The levers *c c*, inclosed in the box B, oscillate on pivots and have springs at the back, by which the pins *o*, screwed into their end, are pressed against the pins *b* of wheel *a*. The part of this wheel projecting from box B is thus situated that the wheel may easily be revolved by a motion of the thumb. When the said wheel is turned in the proper direction the drum-sticks will be lifted, while their springs cause them to strike on the drum whenever one of the pins *b* has passed the pin *o*.

It will be seen that by a short motion of the wheel *a* this mechanism causes a single beat, while a continued motion produces a roll of the drum.

I claim as my invention—

1. In an accordion having the cover *f* sliding

in grooves lined with leather, the loose rim part *g*, combined and arranged therewith, substantially as described.

2. The metallic bushes of the wooden keys of an accordion, as specified, and for the purpose set forth.

3. In combination with an accordion, the drum A, wheel *a*, provided with pins or teeth *b*, and levers *c c*, carrying the drum-sticks *n n*, substantially as set forth, and for the object in view.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM SPAETHE.

Witnesses:

HENRY VAN ARSDALE,

JOHN H. STEUART.