A. F. CARROLL.

REED FOR ACCORDIONS.

APPLICATION FILED NOV. 11, 1920.

1,408,985. Patented Mar. 7, 1922.

Fig. 1.

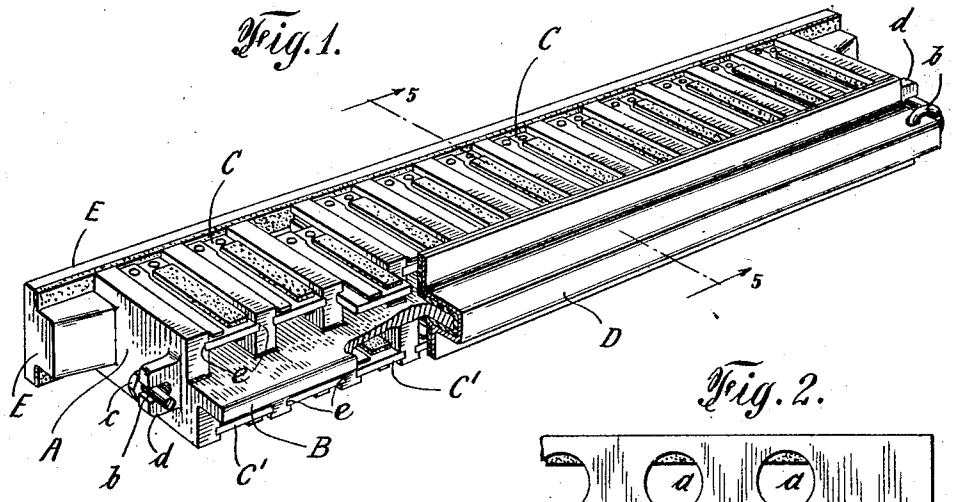


Fig. 2.

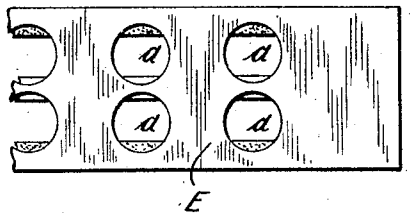


Fig. 3.

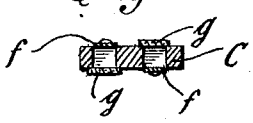


Fig. 4.

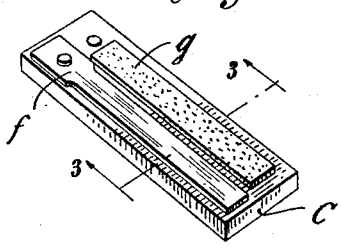
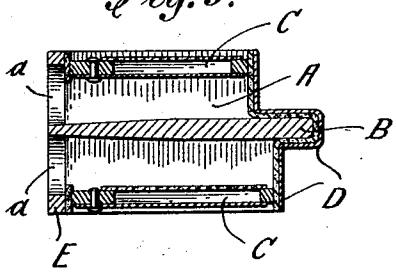


Fig. 5.



Alfred Frederick Carroll Inventor

UNITED STATES PATENT OFFICE.

ALFRED FREDERICK CARROLL, OF NEW YORK, N. Y.

REED FOR ACCORDIONS.

1,408,985. Specification of Letters Patent. Patented Mar. 7, 1922.

Application filed November 11, 1920. Serial No. 423,222.

To all whom it may concern:

Be it known that I, ALFRED F. CARROLL, a subject of His Britannic Majesty, and a resident of the city, county, and State of New York, (whose post-office address is 267 W. 38th street New York city,) have invented certain new and useful Improvements in Reeds for Accordions, of which the following is a specification.

The object of my invention is to provide accordions and other musical instruments of that class, with reeds which are individually and independently slidable and removable instead of being permanently set by wax or otherwise as heretofore. Also to make the reeds more durable than is possible with the present type of construction.

One form of my invention is shown in the accompanying drawings in which:—

Fig. 1, is a perspective view of a bridge equipped with my improved reeds.

Fig. 2, is a side view thereof.

Fig. 3, is a cross section on line 3—3 of Fig. 4.

Fig. 4, is a detail of one of the sliding reeds.

Fig. 5, is a cross section on line 5—5 of Fig. 1.

Same letters indicate similar parts in the different figures.

A, is a bridge, usually made of wood but preferably made of aluminum when my improved sliding reeds are employed. B, is the sounding board which separates the two sets of reeds, C, C′. D, is a cover-plate, preferably of aluminum. E is the facing plate, usually of wood but at times preferably of aluminum.

The facing plate E has the usual valve-holes *a*, *a*. The cover plate D is provided with a swivel clamp *b*, *b*, (see Fig. 1,) at each end of the cover plate, the upper end of the clamp-pin engaging the cover plate as shown at the right of the figure and the lower end being held by a nut *c*, in a slotted bracket on the bridge as at *d*.

The reeds C, C′, are made in the form of sliding plates as shown in Fig. 4, adapted to slide in and out of the grooves *e*, *e*, to remove or replace the reeds when occasion requires. These reed-plates are equipped with the metallic spring-keys *f*, *f*, and the leathers, *g*, *g*.

Among the advantages of this construction are:—

Each reed plate, being independent of the others is made capable of sliding in or out of its own grooves, instead of being permanently set in wax or by nails on the bridge, as in the present system. My own experience, and I am informed that of many accordion players shows that, in the present system of wax and nails as means for securing the reeds in place, there is great susceptibility to weather conditions. In hot weather the wax melts and runs under the leathers and gets on the tips of the springs causing the former to stick to the reed plate and the latter to drop or flatten in tone, thus producing "sour" notes. In cold weather the wax grows brittle, cracks and breaks causing leakage or escape of air through the reed plate, greatly lessening the power of the reeds affected.

It is found also that, approximately fifty per cent increase of power in tone can be secured by the installation of my improved reeds on account of the solid foundation and the reliability of the structure. Other advantages arise from the lightness and the neatness of workmanship secured by my invention.

I claim:—

1. A reed for accordions which comprises a bridge, a facing plate, a sounding board and a cover-plate;—said bridge being provided with a succession of suitable grooves:—a succession of reed-plates independently removable and replaceable, slidably mounted in said grooves, and a suitable clamping device whereby said reed-plates are held firmly in place in said grooves when set.

2. A succession of accordion reed-plates, each being equipped with suitable tongues and leathers, and each reed-plate independently removable and replaceable partitions separating said reed-plates, a corresponding succession of grooves therein in which said reed-plates are slidably mounted, a removable cover-plate whereby said reed-plates are held in the said grooves, and a suitable clamping means whereby said cover-plate is held in position.

ALFRED FREDERICK CARROLL.

Witnesses:
W. P. PREBLE,
GEORGE F. BENTLEY.