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E. HOHNER

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PIANO KEYBOARD ACCORDION

Filed Jan. 6, 1932

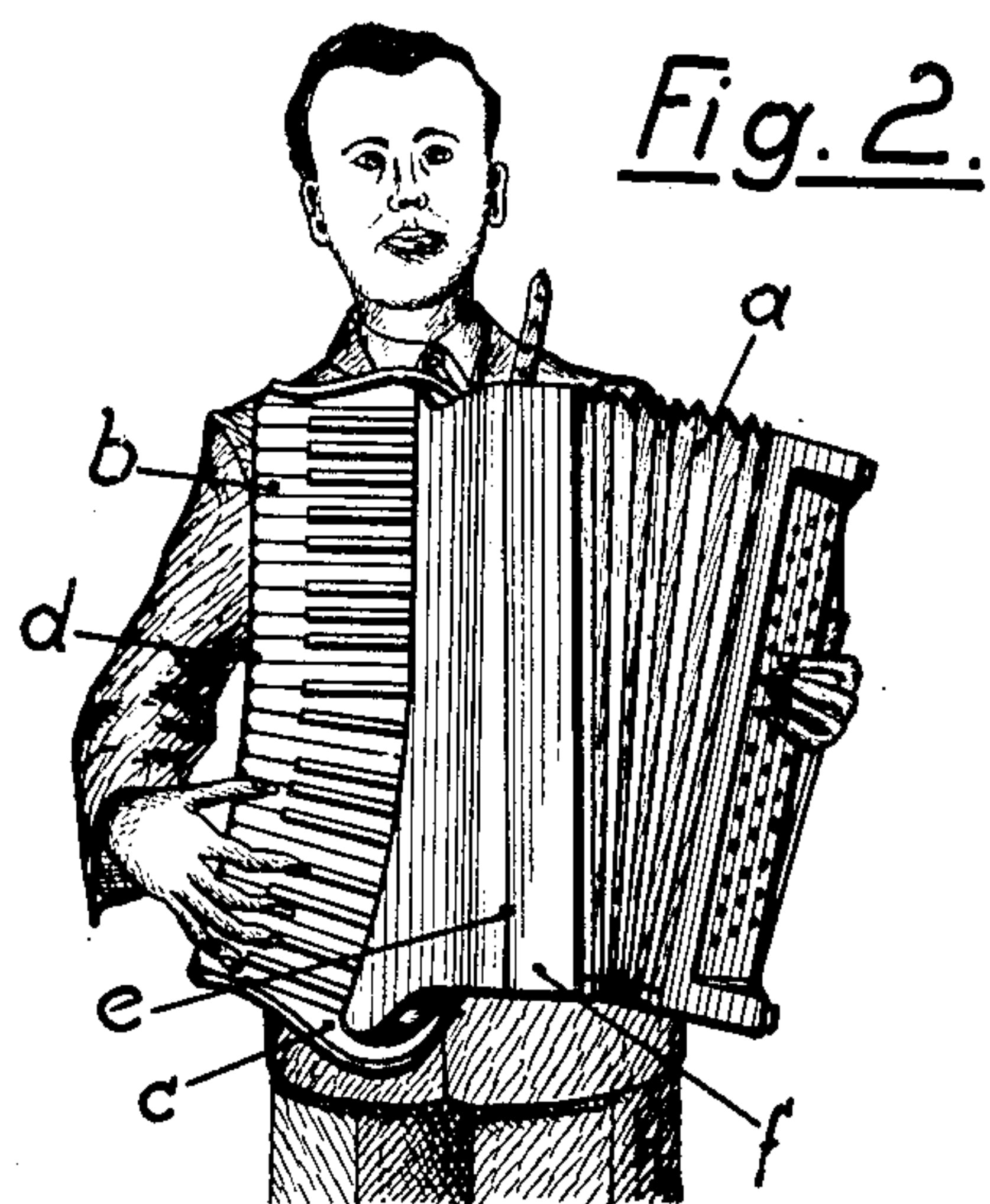
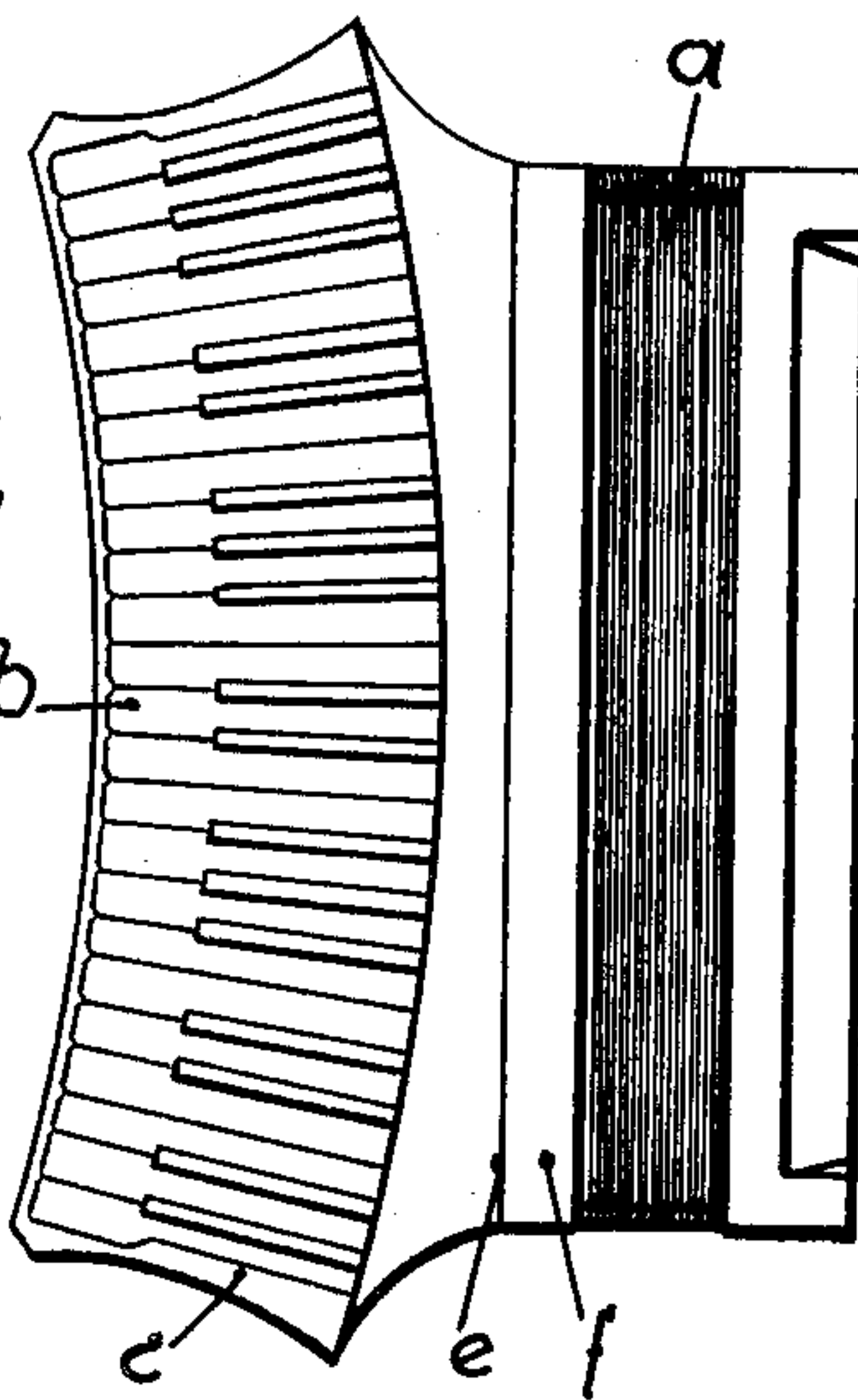
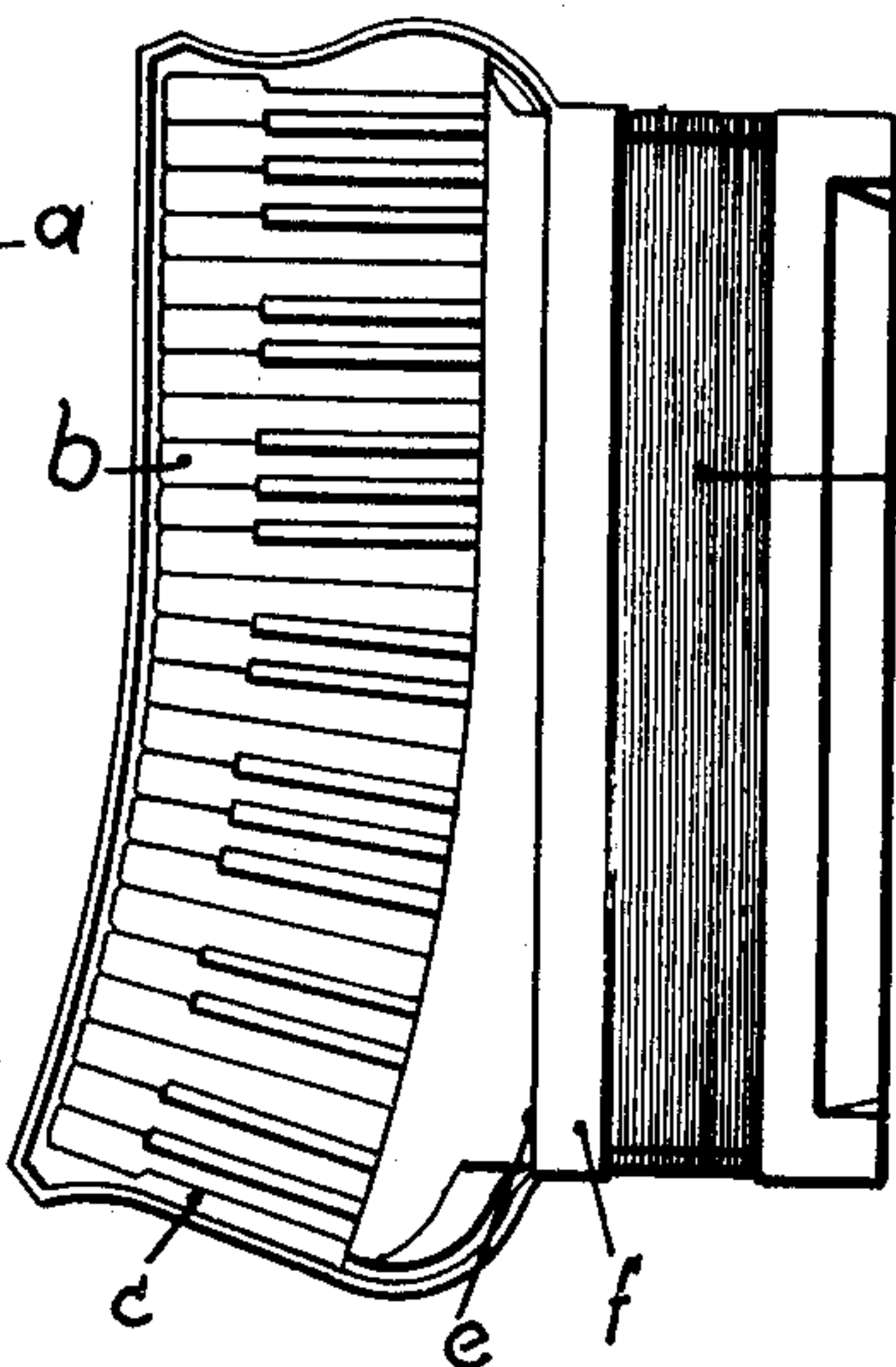
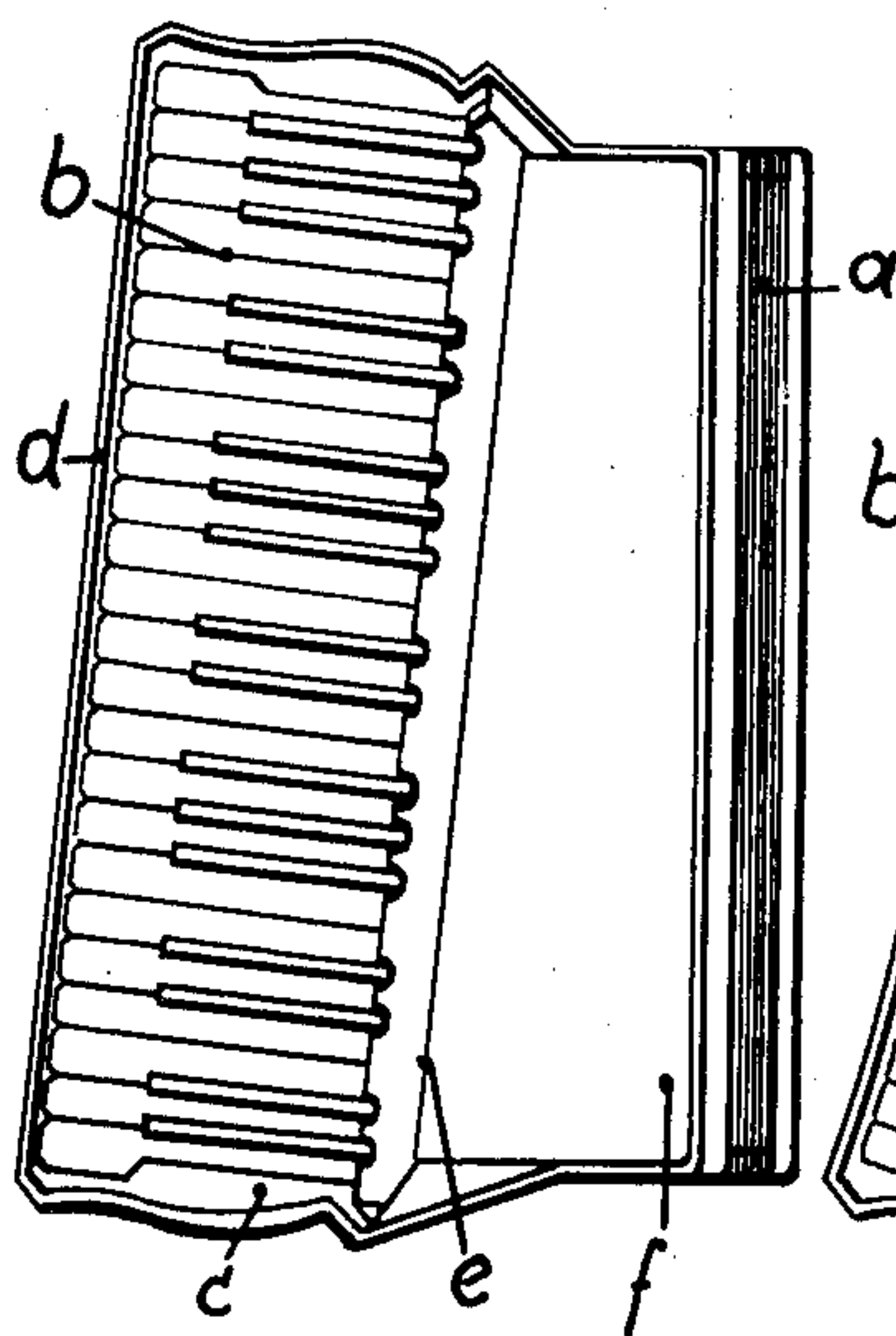


Fig. 3.

Fig. 4.

Fig. 5.



Inventor:
Ernst Hohner
By
Max Opdmann
att'y for applicant

UNITED STATES PATENT OFFICE

ERNST HOHNER, OF TROSSINGEN, GERMANY

PIANO KEYBOARD ACCORDION

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This invention relates to piano keyboard accordions.

In the usual type of accordions of this class the keys are arranged so that playing, particularly on the lower keys, is rendered difficult. Furthermore, considerable practice is required to touch the keys correctly, since the hand will soon get tired and hurt, while the body of the player often assumes an unnatural and ugly position. All these drawbacks are due to the fact that the keys above and below maintain the same distance relative to the longitudinal edge of the case, which compels the player to distort his hand and fingers in a most unnatural way when using the lower keys.

The invention eliminates these defects by arranging the keys in a manner corresponding as much as possible to the natural motions of the hand or fingers when playing, particularly on the lower keys, as well as to the most favorable position of the forearm.

In order to attain the object of the invention, the lower keys are disposed so as to extend more and more outwardly and to occupy a position corresponding to the natural motions of the playing hand and fingers while the forearm is in its most favorable position. This desirable position of the keys may be brought about by arranging the straight row of keys obliquely to the longitudinal edge of the frame, so that the fingerboard projects outwardly below. Or the keyboard may be curved so as to project outwardly only below while its upper portion extends more or less straight or parallel to the longitudinal edge of the frame. Or the edge of the keyboard may be curved completely on top and below. The keys will be disposed vertically or radially to the outer edge of the keyboard, so that all or some of them will be arranged obliquely to the longitudinal edge of the case or frame.

The keys may broaden towards the rear so as to have a conical shape which may be common to all keys or only to the black ones. Otherwise, the arrangement of the keys, their position relative to the outer edge of the keyboard and their construction are immaterial.

By way of example, several embodiments of the invention are illustrated in the accompanying drawing.

Figure 1 shows a player performing on an accordion fitted with the hitherto prevailing form of keyboard, the hand and fingers being in an unnatural position while playing on the lower keys.

Figure 2 shows a player performing on one type of keyboard according to the invention and holding his hand and fingers in a convenient and natural position.

Figures 3, 4 and 5 are top views of accordions disclosing three different key arrangements according to the invention.

Referring to the drawing, the accordion *a* is of the usual construction and provided with a so-called piano keyboard having the keys *b* which are similar to the keys in pianos and which are disposed on the keyboard *d*.

According to the invention, the keys *b* are arranged in such a manner, or the keyboard *c* in connection with this key arrangement has such a shape, that playing on the lower keys *b* is considerably facilitated (Fig. 2) as compared with the old arrangement shown in Fig. 1 while playing on the upper keys is not interfered with. This is made possible according to the invention by removing the ends of the lower keys *b* on the outer edge *d* of the board *c* farther from the longitudinal edge *e* of the case *f* of the accordion than the corresponding ends of the middle or upper keys *b*.

So far as the essential feature of the invention is concerned, it is immaterial how this position of the keys *b* is attained. Fig. 3 shows, for example, a construction in which the board *c* together with the customary key set (Fig. 1) is disposed obliquely to the edge *e* of the case or frame *f*. Figs. 4 and 5, on the other hand, disclose constructions in which the outer edge *d* of the board *c* is curved. In Fig. 4, only the lower portion of the board *c* being curved while the construction shown in Fig. 5 is curved both on top and below.

The three constructional forms do not, however, completely cover the invention, as other forms of the keys *b* are possible.

It is further immaterial how the keys *b* are arranged on the boards *c*. In the construction according to Fig. 3 the keys *b* are positioned vertically to the outer edge *d* of the board *c* in the usual way, unless it is desirable to place all or some of them in a different position relative to the edge *d*. In the construction shown in Fig. 4 the keys *b* of the board *c* are in the lower portion disposed vertically to the edge *d*, i. e., radially to the curvature.

Fig. 5 discloses a construction, in which the edge *d* of the board *c* has a similar curve on top and below, and the keys *b* are preferably arranged radially without exception.

It is also immaterial how, in curved boards *c*, compensation is provided in the rear of the keys *b*. For example, all or only some keys, such as the black ones, may be broader in the rear than in front, that is, be slightly conical in shape, as shown in Fig. 5, or compensation may be made in other ways.

I claim:—

1. An accordion with piano keyboard comprising a case and a plurality of keys disposed in rows, the keys in the lower portion of the board projecting gradually outwardly.
2. An accordion according to claim 1, in which the outer edge of the keyboard and the outer line of the row of keys extend in a straight line, the lower end of the edge and line projecting farther outwardly than the upper end and extending obliquely to the longitudinal edge of the case.
3. An accordion according to claim 1, in which the lower part of the keyboard and of the outer line of the row of keys are curved outwardly.
4. An accordion according to claim 1, in which the lower and the upper part of the keyboard and of the outer line of the row of keys are curved outwardly.
5. An accordion according to claim 1, in which the keys are disposed vertically to the outer edge of the keyboard.
6. An accordion according to claim 1, in which the keyboard and the outer line of the row of keys are curved and the keys are disposed radially to the curve.
7. An accordion according to claim 1, in which the keys have a trapezoidal form.

In testimony whereof, I affix signature.

ERNST HOHNER.