

CHROMATIC PIANOFORTE KEYBOARD.

A matter of great interest to the musical world is an improvement in pianoforte keyboards, patented by M. Philippi, of Troy, N. Y., on Oct. 11, 1859.

The chromatic keyboard, although very simple in its construction and differing but little from the ordinary keyboard, opens an entirely new field for the production of a great many most brilliant, novel and hitherto unattainable effects on the piano.

Fig. 1 represents a plan view of this keyboard and Fig. 2 a vertical section of the same, with the har and nameboard of a square piano.

The space for the additional part of the keyboard— $2\frac{1}{2}$ inches—is obtained by making the piano case about one inch deeper, shortening the white and black keys three-quarters of an inch, cutting out the har as far as the sounding board will permit, and by setting the nameboard (which is made hollow to give more room for the hands) oblique, slanting inward three-eighths of an inch at the bottom. In this space, A, all the keys—white and black—are raised to one level, and one-sixteenth of an inch above the tops of the black keys. This new portion of the keyboard, appearing like a second set of little keys just back of and above the others, B, is, in other words, nothing but small pieces about $2\frac{1}{2}$ inches long, $\frac{1}{2}$ inch wide and $\frac{1}{2}$ inch high, glued on to all the keys in the above-mentioned place. They present a perfectly level surface when at rest, and those back of the white keys are all white; those back of the black keys have the larger part of their surface made black, in order to distinguish them readily. They have a double thickness of ivory, and are considerably rounded off on both sides. The material set against the ivory on the partly black keys is hard rubber.

By thus bringing all the keys of the piano to a level, as far back as has been described, players of very moderate skill are enabled to execute:—1. The simple chromatic scale; 2. Runs in double notes, as, for instance, the chromatic scale in minor and major thirds, in fourths, in minor and major sixths and in octaves; 3. Chromatic progressions of chords, as sixths with thirds, octaves with thirds and sixths, chords of the diminished seventh in all their different forms, and, in short, all chromatic passages with either hand, legato as well as staccato, and from the most delicate pianissimo to the forte, not only with greater perfection than they can be played by a Liszt or Thalberg, but also with a rapidity which could not be approached by a lifetime of practice on the ordinary keyboard.

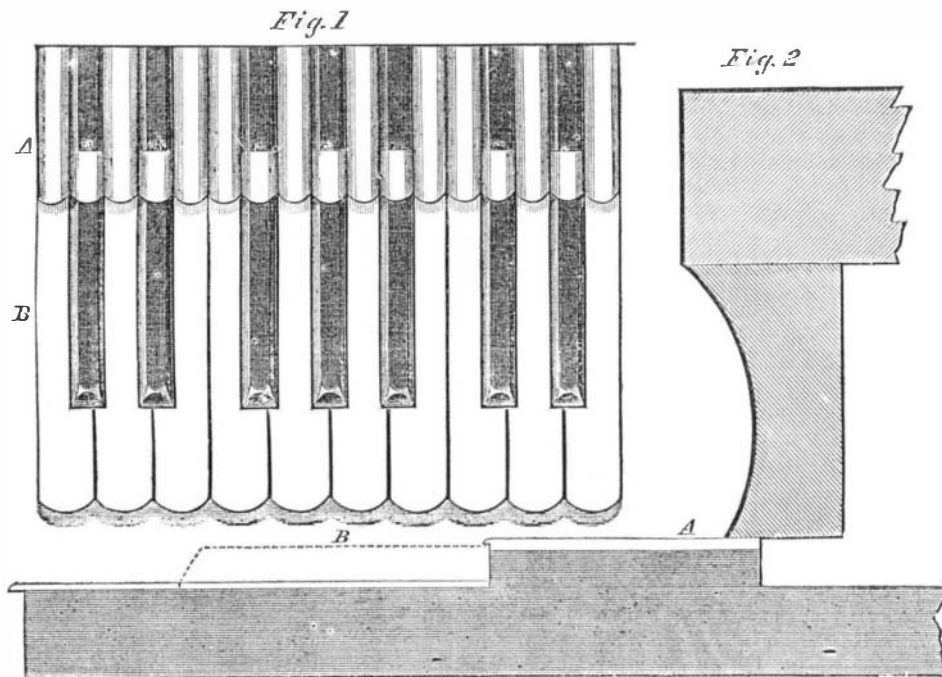
All such passages are played on these keys by adopting fixed extensions for the hands and fingers, and then using the same fingers throughout the whole passage; if written legato, they are played glissando (sliding over the keys with the surface of the nails or the fleshy part of the thumb and little finger). For this manipulation these little keys are exceedingly well adapted, as the fall is very shallow so far back, it being about one-half of that of the white keys in front.

Hitherto glissando playing has been very limited, as it could only be effected on the white keys, and consequently, introduced in very few compositions. Not so now; for chromatic passages are the same in all major and minor keys, and this mode of playing will be available in all compositions.

To some these upper keys may seem rather narrow at first; but the distances are exactly the same as those of the semitones below, to which we are already accustomed, appearing only narrower because they are all on one line. The rapidity with which staccato passages can be played is of course greatly increased by the narrow (level) keys and the shallow fall.

Another advantage is to have two sets of keys; while one hand performs on the lower, the other can move up and down the upper unhindered. In compositions for two or more performers, this keyboard will also be very useful.

In order to illustrate more fully the many advantages and the surprising effects which can be elicited from the instrument with the aid of this little addition to the ordinary keys, the inventor has written pieces expressly for the piano, with chromatic keyboard; they will be followed by compositions from some of our best writers



PHILIPPI'S IMPROVED CHROMATIC KEYBOARD.

here and abroad. We have the first of these pieces, which is dedicated to Franz Liszt, before us; it is quite a curiosity, and we advise those who take an interest in such matters to send to the inventor for a copy.

Not taking the utility of this keyboard into consideration at all, the exceedingly elegant and rich appearance which it gives to the piano, and the freedom which is obtained for the hands, alone exceed its trifling extra cost.

It is the unanimous opinion of all who have examined this invention and can judge of its importance, that the time is not far off, when the finest seven octave piano, without chromatic keyboard, will be considered just as inadequate and out of fashion as the six octave piano is at the present day.

A number of these pianos have already been made and sold by Gruner & Osenkop, piano manufacturers at Troy, and we understand that some of our first firms in the city have made arrangements with the inventor. One of these instruments can be seen at Mixsell's, corner of Greene and Fourth streets, New York.

For further information address the inventor and patentee, M. Philippi, at the Troy Female Seminary, Troy, N. Y.

GREEN HOUSES IN GARRETS.

A writer in the *Evening Post* recommends people living in cities to convert their garrets into green houses for raising choice grapes, nectarines, flowers, &c. His plan is to make the roof of glass, and cover the floor with a suitable depth of soil for cultivation. Of course it would be necessary to cover the floor beneath the soil with concrete, zinc, or some other water-tight material, and to provide for leading off the surplus moisture into the gutters. The writer thinks that where furnaces are used in houses, the waste heat would be ample for such a greenhouse, so that there would be no expense except the labor, and thus every family might have a winter supply of black Hamburg grapes, japonicas, &c., for the mere trouble of raising them, which would be a pleasing and amusing employment for the ladies of the household. This is an excellent suggestion. If any of our readers adopt it, we suppose it will require no reminder from us to prompt them to be very careful indeed to have the covering of their floors beneath the soil absolutely water-tight.

CHICAGO SCIENCE.

In Chicago, Ill., there is an association of gentlemen, termed the "Chicago Academy of Science," which was organized in 1857 with the laudable object of promoting science in the northwest. They have adopted some excellent rules for the accomplishment of their designs. In the short space of four years they have collected a cabinet of 40,000 specimens in the various departments of natural science; and of twelve monthly meetings held during the year, five of them must be out of doors among the scenes of nature.

The third out-door meeting held this year was in an excursion to the coal mines of La Salle, on the Illinois river, when the whole party descended the mine and explored it thoroughly; and Professor Blaney delivered a lecture on the coal formations of that district.

On the 16th ult., the fourth excursion was taken to Dubuque, celebrated for its lead mines. The lead ore in this region is galena—a sulphuret of lead, which is very rich. It contains not less than 86.6 of lead and 13.4 of sulphur. The whole country around is honey-combed with mines. A lecture was delivered on the occasion, in the theater at Dubuque, on these lead deposits, by Prof. McChesney.

This is the true way to cultivate a knowledge of natural science.

ENGLISH AND AMERICAN GOLD COIN.

English gold coin is 22 parts of pure gold to 2 parts of alloy. One thousand pounds of American gold coin contain 900 pounds pure gold, 50 pounds of silver and 50 of copper. The English coin is the finer.

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