

projecting head, but the rest clung closely to the solar edge, and was indented with ring-like divisions, giving it much the aspect of a huge worm."

We do not gather that the chromosphere was observed by the spectroscope either before or after the eclipse, or that any observations as to the colour of the various prominences were made. This is to be regretted. But, on the other hand, we are indebted to Professor Young for a beautiful method of determining the moments of the commencement and end of the eclipse, with an accuracy hitherto undreamt of. This method consists in keeping the slit of the spectroscope directed to the point at which the contact is to take place, and noticing the extinction and reappearance of the base of the bright line C in the spectrum of the outer solar envelope, which Mr. Lockyer has named the chromosphere. In this way, the time of the first contact was determined five seconds before it was evident by any other method.

After what we have stated, we may venture to express a hope that the other reports, when they arrive, will be as rich in food for thought and for work during the next eclipse as this, the first which has been received.—*Saturday Review*.

## ART.

(*Music cultivates the taste and refines and elevates the moral feelings.*—TATE)

### Czerny's Letters to a Young Lady.

#### LETTER II.—ON TOUCH, TONE, AND THE MODE OF TREATING THE PIANO-FORTE.

Continue daily to decipher a couple of new little pieces, and at the same time to practise still more those which you have already learned, so that these latter ones may go off quicker and quicker, and that you may each week study at least two fresh pieces. For, as you have an earnest wish to attain to a high degree of excellence in piano-forte playing, you must look upon all that has been given to you as yet only as a *means to that end*, and, indeed, as that means which will conduct to this end *as quickly and as agreeably as possible*.

I could not refrain from laughing a little, if I may be allowed to tell you so, at your complaining to me how much your master vexed and tormented you with finger-exercises, with rules relating to touch, to the position of the hands, to clearness, volubility, etc., etc.

"Ah!" exclaim you, in a manner quite touching, "must all this really be so?"

Yes, such is indeed the case; and here I can not assist you. Your teacher is quite right in being so strict as to all these points, and I will explain the reason why. From every musical instrument we may produce either a fine tone or a detestable one, *according as we handle it*. The same excellent violin which, in the hands of a clever player, sounds so delightfully, will, when handled by a clumsy person, yield as disagreeable sounds as if a number of kittens were squalling. It is the same with the piano-forte. If it is not properly handled by the player, or if we merely thump and bang the keys, the best instrument will sound hard and unpleasant. On the other hand, if we employ too little force, or do not know how to use this power in a proper manner, the tone will be poor and dull, and the performance unintelligible, and without soul or expression.

The interior mechanism of the keys is such that the strings will only sound well when we—

*First*,—Strike each key perpendicularly; that is, straight downward and exactly in the middle, and therefore not sidewise and obliquely.

*Secondly*—When, after the percussion, each key is so firmly pressed down as to cause the full tone of the instrument to be audible.

*Thirdly*,—When, before the percussion, we do not raise the finger too high; as otherwise, along with the tone there will be heard the blow on the key.

*Fourthly*,—When the hand and arm, even when striking with considerable force, do not make any jumping, chopping, or oscillating movement; for you will find that the fingers can not possibly play pleasantly and tranquilly when the hands and arms are unsteady.

*Fifthly and lastly*,—When the player observes all these rules in rapid runs, or even in skips and extensions, as strictly as in slow and quiet passages.

All the finger-exercises, and particularly the *scales*, have no other end than to accustom the fingers to the application of these rules so thoroughly that the player shall practise all that he studies in future strictly according to the principles we have given.

"Ah! the scales," you write to me; "that is truly a tedious

story! Are these things then really as necessary as my teachersays?" Yes, these scales are the *most necessary point of all*, not only for beginners, but even for pupils who are much advanced; and indeed, the most expert players do and must constantly have recourse to and practice them. Permit me to demonstrate this to you,

You know, already that the passing of the thumb *under* the other fingers, and of the three middle fingers *over* the thumb, is absolutely necessary, and that it is the only means by which we are enabled to strike a long series of keys quickly one after the other.

But this passing of the thumb and fingers, even in the most rapid passages, must be effected in a manner so natural, equal, and unlabored that the hearer shall not be able to distinguish the smallest interruption or equality. This, however, is almost the greatest difficulty in piano-forte playing; and it is possible only when neither the arm nor the hand makes the smallest movement upward or sidewise, and when the joints of all the fingers attain gradually and by long practice so great a degree of flexibility and address that, in a rapid run over the key-board, one is almost tempted to think that the player has at least fifty fingers on each hand. To attain this highly necessary property, there is no other means than the most diligent, uninterrupted daily practice of the scales in all the keys.

But these scales have many other various uses. There are few musical compositions in which they are not introduced by the author in some shape or other. In every piece, whether written to-day or one hundred years ago, they are the principal means by which every passage and every melody is formed. The diatonic scales, or the chords broken into arpeggios, you will everywhere find employed innumerable times.

You will now easily imagine what an advantage it gives a player when he is perfectly acquainted, in all the keys, with these *FUNDAMENTAL PASSAGES*, from which so many others are derived; and what a command over the entire key-board, and what an easy insight into any musical piece, he gains thereby.

Further, no property is more necessary and important to the player than a well-developed *flexibility, lightness, and volubility* of the fingers. This can not be acquired in any way so quickly as by the practice of the scales. For, if we were to try to attain those qualities by the merely studying of different musical compositions, we should spend whole years to accomplish our purpose. Many beautiful pieces require to be executed in a very quick degree of movement, and with great volubility of finger. But how tiresome and detestable would not these same pieces sound if played slow, stiff, and unequal! And even those compositions which are slow on the whole, still contain many occasional runs and embellishments which require great rapidity of finger. All these he has *already* conquered who is able to play the scales well and with sufficient quickness.

At present you can not form an idea of the beauty and effect which is produced by a pure, clear, rapid, and *strictly equal* execution of such runs; they are musical rows of pearls; and many great artists are more particularly distinguished on account of their peculiar excellence in the performance of them. You will no doubt have already remarked that correct *fingering* is a very important part of piano-forte playing, and one which costs every pupil a good deal of labor. Now, the scales contain all the principal rules of fingering, and they are in themselves sufficient, in almost all cases, to show the pupil the right path. What do you say to all these advantages? Is it not well worth the while to occupy yourself seriously with these same tiresome scales?

I must now tell you in what way you ought to proceed to do this. For, if *studied in a wrong manner*, the scales may prove as injurious as they are capable of being serviceable when properly practised. You know that the five fingers are by no means equal to each other in natural strength. Thus, for example, the thumb is much stronger than any of the other fingers; the first finger is much stronger than the little finger; and the third finger, on the contrary, is, with almost every person, the weakest of all. The *pianist*, however, must know how to employ these various degrees of power, so that in playing the scales all the fingers may strike their appropriate keys *with perfect equality of strength*; for the scales sound well only when they are played in every respect *with the most exact equality*.

This equality is *threefold*; namely:

*First*,—*Equality of strength*.

No one note ought to sound, in the smallest degree, louder than another, whether it be struck with the thumb, or the first, second, third, or little finger.

*Secondly*,—*Equality in point of quickness*.

Each note must follow the preceding one strictly in the same degree of movement, whether we apply the scales slow or quick.

*Thirdly and lastly*,—*Equality in holding the notes down*.

No key must be held down for a longer or shorter time than the rest; that is, each finger must only keep its keys pressed down till the