

MUSICAL NOTES.

ITALIAN OPERA.—A long interval of fourteen years has elapsed since an Italian Opera troupe, in complete form, visited this city. Italian Concerts and Italian combinations have appeared from time to time during this interval, but nothing in the shape of legitimate Italian Opera has been heard since the year 1853, when a most excellent troupe of artists, under the direction of Signor Arditi (now famous!) paid Montreal a flying visit. Our music loving citizens are indebted to Max Strakosch, the impressario, of the troupe just departed, for the treat he has afforded them. It was a hazardous undertaking, to bring some forty to fifty artists here (some of whom were doubtless drawing heavy salaries) where success depends so much upon chance and circumstances. We are happy however to be able to state that the pecuniary results which have attended the management have been of a satisfactory character. We are told the receipts for the five nights performances and the Saturday's matinee amounted to over \$3,000. This appears a large sum at first sight, but when the expenses of keeping together so large a body of artists always on the wing, is considered, no very great amount of profit can be supposed to have accrued to the Manager.

Mr. Strakosch's agent managed things in a much quieter manner this time than on former occasions. The troupe came modestly enough; their performance was satisfactory, and their early departure much regretted. If we except Madame Patti Strakosch, Madame Ghioni, and Signors Susini and Tamaro, the company did not present any very great amount of artistic excellence. Madame Strakosch appeared to much greater advantage in Opera than she has hitherto done as a concert singer, in which capacity her greatest efforts have been "coming thro' the rye" or some other such threadbare ditty. Possessed of a pure, rich-toned and flexible voice, she sang and acted her various rôles during the week admirably, being always correct in her intonation and faultless in her phrasing. The conclusion of her arias was generally the signal for hearty applause. Madame Ghioni, the prima donna, is undoubtedly an admirable artist. Her voice has not all the power and freshness which it evidently at one time possessed; and there was a constant tendency to flatness in the upper register (perhaps the result of cold), but her wariness of interpretation and stage experience atoned to some extent for these defects. Her personation of Norma possessed some excellent points, and her rendering of "Casta Diva" and "Ah! hello a me ritorna" was exceedingly good. Of Susini, the great basso, it is scarcely necessary to speak, his merits as an artist being already so well understood here. Every tone of his rich and powerful voice was always skillfully and judiciously managed. His retention of the rôles of Ray Gomez in "Ernani," and Plunkett in "Martha," was one of the best features of the week's performances. Sig. Tamaro, the "tenore di grazia," was, perhaps, the most admired of the two tenors. His Lionelle, in "Martha," was his best effort, and on the whole a very satisfactory performance. His voice was at times sweet and sympathetic, but never capable of sustaining any lengthy aria without a very great deal of exertion. This was most apparent in the celebrated "ai," "M'appari tutt'amor," the concluding phrase of which was sadly improvised upon to assist the voice to a successful issue. What a vast difference stood between the past and the present when we remembered Brignoli's rendering of the exquisite gem last year. The chorus, though small, was not the least of the company's attractions. Many of the choruses were admirably given, and the chorus concluding the 3rd Act of Ernani was re-demanded, a thing of very rare occurrence, even in cities where the opera is an established institution.

The works given were Ernani (Verdi's chef d'œuvre), Norma, Martha, Trovatore, Faust, and Don Giovanni; so we have feasted upon the genius of Verdi, Bellini, Flotow (so-so?) Gounod and the immortal Mozart. The operas were very well put upon the stage, the resources taken into consideration. Two properly attired and cleaner children in Norma would not have detracted

from the performance, and if Sig. Graff (by the way a very good Basso buffo) had sung the part of Tristan in Martha in Italian instead of German, it would certainly have been much better. These things perhaps are only trifles, but when we consider how small a thing may destroy the effect of an otherwise good performance, we feel in duty bound to raise our voice against them. The two children in Norma completely destroyed the effect of the whole scene and duet between Norma and Adeliza.

We cannot conclude without a word of commendation to the admirable little orchestra and its talented leader. That it was always correct and faultless we will not presume to say, but there was always precision and energy displayed, and a constant leaning towards the singers to cover any defects, and to this fact alone much of the success of the week's performance must be attributed.

The Montreal Harmonic Society (this is the new synonym for the old oratorio society) is now established under the joint direction of Messrs. Fowler and Torrington. It is intended to produce in addition to oratorio, all the popular musical classics, sacred and secular. The Society held its first meeting for practice on Tuesday evening last.

ENGLISH OPERA.—It is quite probable that Campbell and Castle's opera troupe will pay us a visit before the year closes. The Company is about to take wing from N. Y. for a lengthy tour, and we have reason to believe that Montreal forms a part of the programme of migration. The company is said to possess a most excellent Prima Donna in the person of Miss Rosa Cooke, and the name of Edward Seguin, the popular baritone, appears upon the bills. We shall be happy to welcome them, should they visit us.

THE YOUNG CHEMIST.

LESSON VIII.

SULPHURETTED HYDROGEN GAS, AND HOW TO CONDENSE IT IN WATER.

Materials required.—Small glass flask with bent tube, as described in preceding lesson, or glass retort with long tube; sulphuric acid (oil of vitriol) in stoppered bottle.

An earthenware jug, test tubes, or wine glasses, and test tube stand.

Spirit lamp; six-ounce phial; distilled water.

Solution of prussiate of potash (ferrocyanide of potassium).

Solution of nitrate of silver; solution of nitrate of copper.

All solutions to be saturated; sulphuret of iron.

When liquids are made to pass into vapour, and when vapour is made to pass into liquid again, this process is called *distillation*. But distillation is also applied to the generation of many gaseous compounds, and the object of our coming operation is to generate a gas of extreme importance to the analytical chemist, viz., sulphuretted hydrogen. This gas, as its name implies, is a compound of sulphur and hydrogen; it possesses acid properties also, and hence is termed hydrosulphuric acid. As it has a most disgusting smell, and being, moreover, poisonous, it is best prepared in the open air. The great importance of sulphuretted hydrogen consists in its being a test for metals generally, and it would be as well for the young chemist to assume that it has the power of indicating the presence of, and separating from a solution, every metal without exception. Instances will occur hereafter of metals not capable of being indicated or separated by hydrosulphuric acid, but these metals had best be considered exceptions to the rule.

Take a portion of sulphuret of iron (sulphur and iron) about the size of a hazel-nut; break it into small fragments, but not into powder, and put these fragments into the glass flask or retort.

Take about one teaspoonful of oil of vitriol (but do not use a spoon of any common metallic substance for measuring) and add to it in an earthenware jug about seven times as much water; remark what a great amount of heat is evolved,

Prepare a very dilute solution of nitrate of silver by adding just one drop of the concentrated solution to a wine-glassful of distilled water. Divide this solution into three wine-glasses.

Prepare a very dilute solution of nitrate of copper in the same way. Call the silver solutions A, B, and C, and copper solutions No. 1, No. 2, and No. 3.

Half fill the six-ounce phial with cold distilled water, and have it near for use. Now pour the dilute oil of vitriol upon the sulphuret of iron in the glass flask with the bent tube, or in the retort, probably the mixture may at once give off bubbles of gas of an unmistakable smell, if not, apply for an instant the heat of a spirit lamp; as soon as the gas begins to come over, plunge the end of the bent tube to the bottom of the distilled water in the six-ounce bottle, agitating the contents as much as possible, by which means the water can be made to absorb a large amount of gas; while the gas is still coming over, remove the tube, and cork the bottle.

Plunge the tube into the silver solution A; a black precipitate falls, which is termed the sulphuret or sulphide of silver, because it is a compound of sulphur and silver. Continue to pass the gas until no further blackness is occasioned, a period which may be determined by filtering a little of the solution and passing the gas through the filtered portion, when, if no blackness results, all the metal has been thrown down.

Repeat this experiment with copper solution No. 1.

Add respectively to silver solution B and copper solution No. 2, a little watery solution of the gas from the six-ounce phial, and remark how similar is the result to that produced by the gas itself. Hence, hydrosulphuric acid has been seen to be a test of the presence of silver and copper, with both of which it strikes a black colour, and throws down a black precipitate. In like manner it throws down most other metals and generally in the form of a black powder.

To copper No. 3 add a drop of the solution of prussiate of potash, and observe the mahogany coloured precipitate which results.

Out of all the substances furnished by the vast range of chemistry, only four of those are metals which produce a precipitate of this colour with prussiate of potash. The names of the four metals are copper, uranium, titanium, and molybdenum.

To silver solution C, add a drop of the prussiate of potash solution, and observe the white precipitate which results.

There are few metals which do not furnish a precipitate of some kind with prussiate of potash; hence, prussiate of potash and sulphuretted hydrogen may be considered as the tests *par excellence* for metals.

(To be continued.)

From a scientific contemporary we learn that a very important discovery has just been made in connection with tanning of leather, by means of which the use of oak-bark may be entirely dispensed with. The process, which has been devised by M. Picard, chiefly depends upon the substitution of turpentine for tannin, and it only occupies twelve hours, in which time leather is produced more effectively than under the old process. The process, though called "tanning," is evidently not even a modification of the old method. Leather is a chemical compound of tannin and gelatine; but in M. Picard's process the fatty substances of the hides are merely dissolved out by the turpentine, and though a material having somewhat the appearance of leather results, it seems hard to believe that it possesses all the good qualities of true leather. The product may however answer well for other purposes, and is 50 per cent. cheaper than the material now generally employed.

DIFFICULTIES.—Wait not for your difficulties to cease: there is no soldier's glory to be won on peaceful fields no sailor's daring to be shown on sunny seas, no trust or friendship to be proved when all goes well. Faith, patience, heroic love, devout courage, gentleness, are not to be formed when there are no doubts, no pains, no irritations, no difficulties.