

are glad to learn, is doing well, and will undoubtedly recover. The operation was performed in the presence of several gentlemen, and occupied from ten to fifteen minutes. Verily may we ask, what next?—[Manchester, N. H., Am.]

#### THE NORMAL SCHOOL OF SWITZERLAND

I should like to enter upon a description of the different Normal Schools of Switzerland, were I not rather beside the purpose of this report. But I cannot refrain from recording the unanimous opinion of the Swiss educators on two points connected with these schools. These are the necessity of manual labour in connection with the instruction given in the school, and the time which all are agreed upon as necessary to the perfecting of a schoolmaster's education. On the latter point, all with whom I conversed assured me that their experience had taught them that three years were absolutely necessary for the education of a master; that whenever less time had been given, it always had been found insufficient; and that in order that even three years should suffice, it was necessary that the young man entering the normal school should have completed his education in the primary schools. With respect to the necessity of manual labour in a Normal School, opinions were hardly less unanimous. To the Bernese Normal Schools, as well as to that at Kramling, conducted by Vehrli, the successor of Pestalozzi and Flenberg, and to the Normal Schools of Lucerne and Solothurn, lands have been annexed, which are farmed and cultivated by the pupil teachers. They are sufficiently extensive, in five of these schools, to employ all the young men in the Normal Schools at least two hours per diem in their cultivation. On these lands all the pupil teachers, accompanied by their professors, and clothed in coarse farmers' frocks, with thick wooden sandals, may be seen toiling most industriously, about the middle of the day, cultivating all the vegetables for the use of the household, as well as some for the neighbouring markets; and could any one be taken among them at that period of the day, he would imagine he saw before him a set of peasants at their daily labour, instead of young gentlemen to the much respected profession of schoolmaster. Besides the labour in the fields, the young men are also required to clean their apartments, to take charge of their own chambers, prepare their own meals, besides keeping all the premises in good repair. Thus the life of the pupil teacher in Switzerland during the time he remains at school, is one of the most laborious in nature. He is never allowed to lose sight of the manner of life of the class from which he was selected, and with which he is afterwards required to associate. He is never allowed to forget he is a peasant, so that he may intermingle in any degree in mingling with peasants. In this manner they train their teachers in habits of thought and life admirably suited to the laborious character of the profession for which they are destined and to the humble class who will be their companions in after life. The higher the instruction that is given to a pupil teacher, the more difficult and the more important it is to cherish his sympathies for the humble and often degraded class among whom he will be called to live and exercise his important duties. In fact, as all the Swiss educators and the great difficulty in educating a teacher of the poor is to avoid advancing his intelligence and elevating his religious and moral character, raising his taste and feelings so much above the class from which he has been selected, and with which he is called upon afterwards to associate as teacher, adviser, and friend, as to render him disgusted with his humble companions and with the toil-some duties of his profession. In educating the teachers, therefore, far above the peasant class whom they are intended to instruct, the Swiss Cantons which I have mentioned are very careful to continually habituate them to the simplicity and laborious character of the peasant's life; so that when they leave the Normal Schools they find they have changed from a situation of laborious toil to one of comparative ease. They do not, therefore, become dissatisfied with their laborious employments; but are accustomed, even from their childhood, to combine a high development of the intellect, and a great elevation of the character, with the simplicity and drudgery of the peasant's occupations.—*The Education of the Poor in England and Europe, by Joseph Kay*

**THE SEXES.**—The finger of God himself has marked out the impulses, the habit, the character of the two sexes. Man has vigour, woman refinement; man has the reasoning faculty best developed, woman the perceptive; man has the power of abstraction, woman rarely possesses it; man is the creature of calculations, woman of impulses; man is capable of deep research—he proceeds slowly and cautiously; measuring every distance, and counting every step of his progress, woman bounds along with rapid feet, observing the most prominent objects in her path, and from them forms conclusions often erroneous, but always ingenious.

**DISCOVERY OF IRON AND COAL MINES.**—We learn from the *Journal de Quebec*, received this morning, that Mr Boudreau, of Baie St Paul, has made two rich discoveries—one an Iron Mine at a short distance from the shores of the Bay, and on the banks of the River Gouffre, navigable by Schooners to within a third of a league of the spot.—The other is of a Coal Mine, still more advantageously situated on the banks of the same river, and only two miles from the shores of the Bay. The *Journal* invites our Geologist, Mr Logan to go down to Baie St. Paul, and examine the nature of the soil in that neighbourhood.—[Minerve.]

A French government boat, the *Jentile*, had, at the last advices, arrived at St. John, Newfoundland, also a steamer, the *Flambeau*, from St. Peter. Their visit is said to be connected with the seizure of some French fishing vessels, for encroaching on British fishing grounds.

#### Scientific.

#### CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY.

##### VI.—Of the Manuring of the soil.

(Continued from our last.)

- Q. What does nitrate of soda consist of?  
A. It consists of nitric acid and soda.  
51 lbs. of nitric acid and 31 lbs. of soda, form 55 lbs. of nitrate of soda.
- Q. What is nitric acid?  
A. Nitric acid is a very sour corrosive liquid, called also aqua-fortis. It consists of the two gases, nitrogen and oxygen.  
11 lbs. of nitrogen and 40 lbs. of oxygen form 55 lbs. of nitric acid.
- Q. Upon what does the beneficial action of nitrate of soda upon plants depend?  
A. Upon its supplying nitrogen and soda to the growing crops.
- Q. What quantity would you lay upon an acre?  
A. From 1 cwt. to 1½ cwt. to an acre.
- Q. What is sulphate of soda?  
A. Sulphate of soda is the substance commonly called glauber salts, and consists of sulphuric acid (oil of vitriol) and soda. It sometimes produces good effects when applied as a top-dressing to grass lands, to turnips and to young potatoe plants.  
40 lbs. of sulphuric acid with 31 lbs. of soda, form 71 lbs. of dry sulphate of soda.
- Q. How is common salt applied?  
A. Common salt may be either applied as a top dressing, or it may be mixed with the farm yard or other manure, or with the water used in slaking quicklime.
- Q. In what places is salt most likely to be beneficial?  
A. In places that are remote from the sea, or are sheltered by high hills from the winds that pass over the sea.
- Q. How do you account for this?  
A. Because the winds bring with them a portion of the sea spray, and sprinkle it over the soil to a distance of many miles from the sea shore.
- Q. Does the quicklime increase in weight when slaked?  
A. Yes: one ton of pure quicklime becomes 25 cwt. of slaked lime.
- Q. Does quicklime fall to powder of itself when left exposed to the air?  
A. Yes, it absorbs water from the air, and gradually falls to powder.
- Q. Does quicklime drink in (absorb) anything else from the air?  
A. Yes, it gradually drinks in carbonic acid from the air, and returns at length to the state of carbonate.
- Q. When it thus returns to the state of carbonate is it better for the land than before it was burned?  
A. Yes: it is in the state of a far finer powder than could be got by any other means, and can thus be more thoroughly mixed with the soil.
- Q. What is gypsum? (plaster?)  
A. Gypsum is a white substance, composed of sulphuric acid and lime, it forms an excellent top-dressing for red clover, and also for the pea and bean crop.  
40 lbs. of sulphuric acid and 28½ lbs. of lime form 68½ lbs. of burned gypsum.  
40 lbs. of acid 2½ lbs. of lime, and 18 lbs. of water, form 66½ lbs. of unburned gypsum. Native or unburned gypsum loses about 21 per cent of water when heated to dull redness, becoming burned gypsum.
- Q. Under what circumstances ought these salt-like or saline substances to be applied?  
A. They ought to be applied in calm weather, in order that they may be equally spread,—and soon after or before rain, that they may be dissolved.
- Q. Are mixtures of these substances sometimes more beneficial than any of them applied singly?  
A. Yes, a mixture of nitre and sulphate of soda usually produces a much more beneficial effect upon potatoes than either of them alone, and the same is often the case with a mixture of common salt and gypsum when applied to the bean crop.
- Q. What is kelp?  
A. Kelp is the ash that is left when the seaweed is burned in large quantities.
- Q. Can it be employed usefully as a manure?  
A. Yes, as a top dressing to grass lands and to young grain—or even mixed with the manure for the turnip and potatoe crop it may be employed with much advantage.
- Q. Has it been generally employed as a manure in Scotland.

A. Not hitherto, but there is reason to believe that, if fairly tried, it might be profitably employed to a large extent.

Q. Are wood ashes (or the ashes of burned wood) a valuable manure?

A. Yes, applied to grass lands wood ashes destroys moss, and increases their luxuriance; upon young grain and potatoes it produces a similar effect, and is profitably mixed with bones, rapeseed, guano, and other manures which are employed for the turnip crop.

Q. What does limestone consist of?

A. Limestone consists of lime (quicklime) in combination with carbonic acid.  
2½ lbs. of lime and 22 lbs. of carbonic acid make 50 lbs. of limestone.

Q. What name is given to limestone by chemists?

A. It is called by chemists carbonate of lime.

Q. Are there not many varieties of limestone?

A. Yes,—some soft such as chalk,—some hard, such as our common limestones,—some of a yellow colour, like the magnesian limestones, which contain magnesia,—some pure white, like the statuary marble,—some black, like the Derbyshire black marble, and so on.

Q. What is marl?

A. Marl is the same thing as limestone, namely, carbonate of lime, only it is often in a state of fine powder, and often mixed with earthy matter.

Q. What is shell sand?

A. Shell sand or broken sea-shells is also the same thing, almost exactly, as common limestone.

Q. Can these marls and shell sands be applied with advantage to the land?

A. Yes, as a top-dressing to grass lands, and especially to sour, coarse, and mossy grass,—or they may be ploughed or harrowed in upon arable fields,—and especially they may be applied with advantage and in large quantity to peaty soils.

Q. Can they not be used also in making composts?

A. Yes, mixed with earth and vegetable matter, or with animal matter, such as fish refuse, whale blubber, &c., and even with farm-yard dung, they will often produce very good effects.

Q. How would you ascertain the presence of lime in a soil or in a substance supposed to be a marl?

A. By putting a little of it into a glass and pouring upon it vinegar or weak spirit of salt (muratic acid.) If any bubbling up (effervescence) appeared, I would say that lime was present.

Q. To what would this bubbling up be owing?

A. It would be owing to the escape of carbonic acid from the carbonate of lime which the soil or marl contained.

Q. What takes place when limestone (carbonate of lime) is burned in the kiln?

A. The carbonic acid is driven off from the limestone by the heat, and the lime alone remains.

Q. What is lime called in this state?

A. It is called burned lime, quicklime, caustic lime, hot lime, lime shells, &c.

Q. What weight of quicklime or lime shells obtained from a ton of limestone?

A. A ton of limestone yields about 11½ cwt. of quicklime.

Q. What takes place when water is poured upon quicklime?

A. The quicklime drinks in the water, becomes very hot, swells up, and gradually falls to powder.

Q. What is this pouring of water upon lime, so as to make it fall usually called?

A. It is usually called slaking the lime, and the lime is called slaked or slacked lime.

#### For the Ladies.

##### THE THREE VOICES.

What saith the Past to thee? Weep!  
Truth is departed;  
Beauty hath died like the dream of a sleep,  
Love is faint-hearted;  
Trifles of sense, the profoundly unreal  
Scarce from our spirits God's holy ideal—  
So, as a funeral bell, slow and deep,  
So tolls the Past to thee! Weep!

How speaks the Present hour! Act!  
Walk upward glancing;  
So shall thy footsteps in glory be tracked,  
Slow, but advancing.  
Scorn not the smallness of daily endeavour,  
Let the great meaning enoble it forever;  
Droop not over efforts expended in vain;  
Work, as believing that labour again.

What doth the Future say? Hope!  
Turn thy face sunward!  
Look where the light fringes the far rising slope—  
Day cometh onward.  
Watch! Though so long be twilight delaying,  
Let the first sunbeam arise on the praying;  
Fear not, for greater is God than thy side,  
Than armies of Satan against thee allied.

#### THE MAN WHO KISSED THE THREE GIRLS.

A young man who boarded at a house in the country, where were several coy damsels who seemed to imagine that men were terrible creatures, whom it was an unpardonable sin to look at, was one afternoon accosted by an acquaintance, and asked what he thought of the young ladies with whom he boarded? He replied that they were very shy and reserved.

"So they are," returned the other; "and so much so that no gentleman could get near enough to tell the color of their eyes."

"That they may be," said the boarder, "yet I'll stake a million that I can kiss them all three, without any trouble."

"That you cannot do," cried his friend; it is an achievement which neither you nor any other man can accomplish."

The other was positive, and invited his friend to the house to witness the triumph. They entered the room together, and the three girls were all at home, sitting beside their mother, and they all looked prim and demure, as John Rogers at the stake.

Our hero assumed a very grave aspect, even to dejection, and having looked wistfully at the clock, breathed a sigh as deep as Algebræ, and as long as a female dialogue at a street door. His singular deportment now attracted the attention of the girls, who cast their slow-opening eyes up to his countenance. Perceiving the impression he had made, he turned to his companion and said—

"It wants three minutes of the time."

"Do you speak of dinner?" said the old lady,

laying down her sewing-work.

"Dinner!" he said; with bewildered aspect,

and pointing, as if unconsciously, with curved

forefinger, at the clock.

Silence ensued, during which the female part

of the household gazed at the young man with ir-

repressible curiosity.

"You will see me decently interred," said he,

again turning to his friend.

His friend was as much puzzled as any body

present, and his embarrassment added to the in-

terested effect; but the old lady, being no longer

able to contain herself, cried—

"Mr. C—, pray what do you speak of?"

"Nothing," answered he, in a lugubrious tone,

"but that last night a spirit appeared unto me!"

Here the girls rose to their feet and drew near.

"And the spirit gave me warning that I should

die exactly at twelve o'clock to-day, and you see

it wants but half a minute of the time."

The girls turned pale, and their hidden sym-

ptoms were at once awakened for the doomed.

They stood chained to the spot, looking alternate-

ly at the clock, and at the unfortunate youth. He

then walked up to the eldest of the girls, and tak-

ing her by the hand, bade her a solemn farewell.

He also printed a kiss upon her trembling lips,

which she did not attempt to resist. He then

bade the second and third farewell in the same

tender and affectionate manner. His object was

achieved, and that moment the clock struck twelve.

Thereupon he looked around surprised, and ejacu-

lated—"Who would have believed that an ap-

parition would tell such a lie! It was probably

the ghost of Ananias, or Sapphira."

It was some time before the sober maidens un-

derstood the joke, and when they did, they evinced

no resentment. The first kiss broke the ice;

and, thanks to the ghost, they discovered that

there was one pleasure in a bearded cheek.

#### Scraps.

It is a remarkable peculiarity with debts, that their expanding power continues to increase as you contract them.

**CAUTION TO DADDIES.**—A tall eighteen year old volunteer, at Metamoras, being asked by Gen. Taylor his motive for volunteering, replied, "Because daddy licked me."

"William," said a pretty girl to her lover, the other day "I'm afraid you don't love me any longer." "Don't love you any longer?" replied Bill, "I don't do nothing shorter."

**WOMAN'S INFLUENCE.**—Like the olive tree—said to fertilize the surrounding soil—there are some few ministering angels in female guise among us all, and about our paths, who sweetly serve to cheer and adorn life. Our amusements are insipid unless they contribute to them; our efforts of noblest ambition feeble, unless they are applauded—their reward valueless, unless they share them. There are, too, some rude spirits in the world, whose bolder nature female influence admirably serves to refine and temper; and perhaps it is an extreme eulogium of the poet, that without that influence, many a man had been a "brute indeed." The concurrence of both sexes is as necessary to the perfection of our being, as the existence of it. Man may make a fine melody, but a woman is also required to make up harmony.

"What's that?" said a schoolmaster, pointing to the letter X.

"Daddy's name."

"No it ain't daddy's name, you blockhead—it's X."

"No it ain't," said the boy, "it's daddy's name, I've seen him write it often."

An Irishman making love to a lady of great fortune, told her, "he could not sleep for dreaming of her."

An Alabama editor makes apology for a lack of "editorials," because Sally, his better half, has the scissors. "The babies," he says, "must have shirts, and Sal won't cut out shirts with the handsaw, no how you can fix it."

Among the paintings exhibited at Paris this year, is a landscape by an artist who was born without hands or arms, and who paints with the help of his feet alone.