

## SCIENCE NOTES.

The Earl of Portsmouth has the honour of being the collateral representative of Sir Isaac Newton, and he has generously offered to the University of Cambridge, through the Duke of Devonshire (Chancellor of the University), all the papers of Sir Isaac relating to scientific subjects which his lordship has inherited. Lord Portsmouth's gift is prompted by the feeling that these papers will be more fitly deposited in the library of the university of which Sir Isaac was so distinguished an ornament, than in his own monument-room.

**A SUPPOSED FREAK OF NATURE.**—A Vicksburg paper furnishes the following as a freak of nature. The item is having a very general circulation through the newspapers:—"Upon a spot where had been buried a soldier who fell at Champion Hill, who was buried in his blood, grew a peach tree that had reached maturity, while its roots steeped themselves in the martyr's blood. Singular to relate, the leaves and fruit of this tree are a blood-red colour. The tree was transplanted, and is now in an orchard in this country. The propagations from the tree are of the same peculiar colour. There is something very peculiar about this. We have seen the leaves, and must confess that they do look and even (to us) smell like blood. The fact can be witnessed by those taking the trouble." To which the *San Francisco Scientific Press* replies:—"There is a variety of the peach which very fully answers the above description, and it doesn't always grow on a soldier's or any other grave, although such a locality, especially if it was a mellow one, would most probably greatly improve the appearance of both tree and fruit, and especially its peculiarly distinctive character of redness."

An exchange says:—"A new plan for concentrating and softening the light of gas jets has just been invented. The half of a hollow glass globe filled with water is suspended under the flame. It is said to give a soft, steady, mellow light, quite agreeable to the eyes, and protecting the head from the heat of the flame." For the last two or three months this "new invention" has been on trial in this office. There is no question but that the light is rendered soft and mellow by its means. Its intensity is naturally increased. But this advantage is counterbalanced by the fact that the jarring caused by machinery, or even the imperceptible shaking produced by persons walking overhead, is sufficient to rattle the surface of the water, and thereby make the light flicker in a manner that would be calculated in time to do serious injury to the eyesight. In fact the effect of such a light upon the eyes would be exactly similar to that produced by reading in a railway carriage. Of course these remarks apply only to the use of the water-shaded light for reading purposes. For the detection of colours it is invaluable. As a proof of the extreme delicacy and purity of the light thus transmitted it is only necessary to state that it is used, in New York and elsewhere, by hair-dressers and dealers for sorting different shades of hair, an operation that requires not only the clearest light, but the keenest eyes.

It may not be generally known to our readers that snake-poison is used for medicinal purposes in these days, and that under the name of "Crotalus Horridus," the poison of the rattlesnake is utilised in homoeopathic pharmacy. Messrs. Thompson and Capper, of Liverpool, having recently imported a number of rattlesnakes, abstracted the venom from the live animals in the following ingenious manner.—The reptiles were in separate compartments of a large case, fitted with a double lid for extra security. A long staff, fitted with a thick indiarubber nose at end, which could be loosened or tightened by the hand at pleasure, was inserted through the partially-opened lid, and the opportunity quickly seized of slipping the loop over the snake's head, the loop being immediately drawn tight by means of the cord attached thereto. With a similar contrivance the tail was next fastened, and the snake being thus securely held, was lifted out of the box on to the floor of the room. A pickle bottle containing chloroform was then thrust over the snake's head, and carefully held in its place by keeping time with the animal's efforts to extricate itself. As the reptile became stupefied, the nose was gradually relaxed to enable the lungs to have full play, and when it appeared powerless, the snake was laid in a long narrow box made for the purpose, with an aperture at one end, out of which its head projected while the after-operation was performed. Its jaws were then opened and fixed, and the poison glands were pressed with forceps, then with the gloved finger and thumb, while a small blown graduated phial was held to receive the drops as they oozed slowly out through the poison fangs. Twenty drops were the average quantity yielded from each snake. The venom is of a straw colour, thick and gummy in consistency, and decidedly acid in its reaction on litmus paper. It is readily soluble in glycerine or water, but is precipitated by strong alcohol, the precipitate being re-dissolved, with the addition of a little water. Its toxicological properties were fully tried on a variety of animals. Half a drop produced death on a linnet within three minutes after being injected under the wing. The symptoms produced in all cases were very similar.—*Court Journal*.

**A NOVELTY IN BANK-NOTE PAPER.**—A Berlin lithographer of the name of Gustavus Schwartzwald is said to have discovered a method of preparing paper for bank-notes which it is impossible to imitate. According to the assertion of the discoverer, the formation of the preparation, the combination of it with the paper in various peculiar shades, and their properties are of such a nature that they effectually prevent any attempt at imitation, which has hitherto been the desideratum with regard to paper money. The discovery can be readily introduced by any government without any great outlay, and is so far practical as it prevents the possibility of counterfeiting it.

A champion itemizer, whose imagination and conscience are both of India-rubber elasticity, sends a sheep story from Colorado, in which he tests the credulity of his readers by asking them to believe that the flocks of that territory carry about their pastures on their backs. He says:—"The sheep in Colorado have long wool, in which dust accumulates during summer. Then when grass has gone to seed the wind carries the seed into the meshes of the fleece. In winter the rain falls, the dust is turned to mud, in which grass grows, and then thousands of sheep may be seen travelling about in verdure clad, and with their feed upon their backs."

## VARIETIES.

Dr. Holmes says that crying widows marry first. There is nothing like wet weather for transplanting.

A wretched old bachelor says: "After all a woman's heart is the sweetest thing in the world; it is a perfect honeycomb—full of cells."

The hair of a camel weighs about ten pounds and sells for more than one hundred dollars, which shows that it was not only in the days of Mohammed that the animal bore a great prophet.

A youth seeing a young woman shedding tears over something in her lap, concluding it was a book, asked if it was Bulwer's last production which had affected her so acutely. "I don't know who produced them, but they were mighty strong onions," was the unromantic reply.

John McMasters, of Peoria, never drinks and never goes home drunk, but he has an odd, eccentric way of beating his wife sometimes. The other night he piled up all her clothes in a heap and burned them, for which she did not care, because she knew she must have something to wear here below, and was glad to have that something new; nevertheless she brought an action against him, and he made his appearance in the Police Court.

A good anecdote is told of a house painter's son, who used the brush dexterously, but had acquired the habit of putting it on too thick. One day his father, after having frequently scolded him for his lavish dabbling, and all to no purpose, gave him a flagellation. "There, you young rascal," he said, after performing his painful duty, "how do you like that?" "Well, I don't know," whined the boy in reply, "but it seems to me that you put it on a thundering sight thicker than I did."

In reference to Anna Dickinson's story of her one insult, which consisted in a man's pressing her foot in a railroad car, and not stopping when she threatened to complain to the conductor, the *Chicago Post* says: "Anna didn't tell all the story. The man repeated the insult, and Anna called the conductor, who heard the statements of both parties. Anna put her feet in evidence, and the conductor decided that the man must have somewhere to put his feet, and told Anna that she should in future wear hers sideways. That's the truth of the whole matter."

A Lafayette lover seated himself on a barrel turned on its side, while serenading his heart's mistress. In his ecstasy he rolled the barrel over, slammed his guitar against a shutter in his efforts to regain his balance, and disappeared in the cistern. The bubbling cry of the strong swimmer in his agony brought out the entire family, including the bull-dog, in various brief and picturesque costumes, ranging all the way from a *robe de nuit* and curl papers, worn by the innocent cause of it all, to a simple yet serviceable collar, ornamented with spikes, worn by the bull-dog. He was fished out of the cistern, and then the bull-dog went for him, and a more demoralized lover never took refuge in the first hut he encountered. He doesn't go for the girl quite so heavily as he did, but he has smashed his guitar to pieces.

A good story is told of a certain prominent railroad man of Philadelphia, who is equally renowned for his ability to make and take a joke. A railroad employee, whose home is in Avon, came one Saturday night to ask for a pass down to visit his family.

"You are in the employ of the railroad?" inquired the gentleman alluded to.

"Yes."

"You receive your pay regularly?"

"Yes."

"Well, now, suppose you were working for a farmer instead of a railroad, would you expect your employer to hitch up his team every Saturday night and carry you home?"

"This seemed a poser, but it wasn't."

"No," said the man, promptly. "I would not expect that; but if the farmer had his team hitched up, and was going my way, I should call him a darn mean cuss if he wouldn't let me ride."

Mr. Employee came out three minutes afterward with a pass good for twelve months.

**AN ARTFUL DOGGER.**—A few years ago, a butcher of Caen bought a calf of a cattle jobber in the environs. Half a gallon of cider was to elench the bargain, and the butcher jocosely observed, among other things, that he meant to smuggle the calf into town in broad daylight, and to pass the *octroi*, or customs barrier, publicly, without paying. The cattle dealer declared this to be impossible, and a wager was accordingly laid between him and the butcher, who merely made this condition, that the dealer should lend him his dog for half an hour. He put the dog in a large sack, which he threw over his shoulder, and away he trudged to the city. On reaching the *octroi* he declared that he had nothing to pay, as there was only a dog in the sack, which he had just bought and shut up, that he might not find his way back to his former master. The officers of the *octroi* would not take this story on trust, but insisted on seeing the dog. The butcher was therefore obliged to open his sack, and the dog naturally availed himself of the opportunity to run away. Off scampered the butcher after him, scolding and swearing all the way. In a quarter of an hour he was again at the *octroi* with a sack on his shoulders as before. "You have given me a pretty chase," said he, peevishly, walking through. Next day he invited the officers to partake of a veal cutlet, to which, having won the wager, he treated them and the cattle dealer.

Over a year ago, some English artists of acknowledged ability combined, under the superintendence of the painter-poet, William Morris, to prepare designs for the internal decoration and furnishing of houses. This attempt to substitute the ideas of a trained artist for those of an upholsterer, in whose eyes expense is the only measure of beauty, has been a gratifying success. Here is a precedent which men of really cultivated tastes, who are struggling for wealth in some thoroughly ungenial occupation, would do well to follow. They would benefit themselves as much as the people who would buy their advice,—and this, considering the barbarous style of furnishing that prevails in American parlours, is saying a great deal.

The cultivation of flax is receiving considerably more attention of late years than formerly, particularly in the western and north-western counties. The *Huron Exporter* thus refers to a particularly fine specimen:—"Mr. Barnet Burns, of Lot 18, 1st Concession, McKillop, showed us on Tuesday last a few stalks of flax which measured three feet four and a-half inches. This flax had been pulled on Saturday last. Mr. Burns has 18 acres under flax, and states that the stalks shown us are a fair specimen of the crop. He expects it will average about three tons to the acre."

The *Galaxy*, the Ladies' fashionable newspaper of New York, 6th May, says:—"It has been very noticeable since the introduction of that Italian preparation, the Concentrated Water of Tivoli or Bath of Beauty, that in society or at the theatres the toilets of our Ladies have been vastly improved. 5-25 d

## CHESS.

*Solutions to problems sent in by Correspondents will be duly acknowledged.*

## TO CORRESPONDENTS.

*Book Mobile.*—Wrong in both cases. Nothing prevents Black from moving his Bishop after White's second move in Problem No. 50. Below you will find the correct solution to Problem No. 51.

R. M. B. TORONTO, and ALLIGIER, BELLEVILLE.—Solution to Problem No. 52 received: correct.

A game played recently in the Montreal Chess Club.

## SCOTCH GAMBIT.

| White. Attack.             | Black. Defence.   |
|----------------------------|-------------------|
| 1. P. to K. 4th            | P. to K. 4th      |
| 2. K. Kt. to B. 3rd        | Q. Kt. to B. 3rd  |
| 3. P. to Q. 4th            | P. takes P. (a)   |
| 4. B. to B. 4th            | B. to P. 4th      |
| 5. P. to Q. B. 3rd         | K. Kt. to B. 3rd  |
| 6. P. to K. 5th (b)        | P. to Q. 4th      |
| 7. B. to Q. Kt. 5th        | Kt. to K. 5th     |
| 8. Kt. takes P.            | B. to Q. 2nd      |
| 9. Kt. takes Kt.           | B. takes B. (c)   |
| 10. Castles.               | Castles.          |
| 11. B. to K. 2nd           | B. takes Kt.      |
| 12. P. takes B.            | Kt. to K. Kt. 4th |
| 13. Kt. to Q. B. 3rd       | P. to K. B. 3rd   |
| 14. P. to K. B. 4th        | Kt. to K. 3rd     |
| 15. P. to R. B. 5th        | Kt. to Kt. 4th    |
| 16. B. takes Kt.           | P. takes B.       |
| 17. Q. to K. B. 3rd        | Q. to Q. 2nd      |
| 18. P. to Q. R. 4th        | Q. R. to K. sq.   |
| 19. P. to Q. Kt. 4th       | P. to Q. Kt. 3rd  |
| 20. P. to Q. Kt. 5th       | B. to Kt. 2nd     |
| 21. Kt. to Q. 2nd          | P. to Q. B. 4th   |
| 22. P. takes P. en pass.   | B. takes P.       |
| 23. Kt. to Q. B. 3rd (d)   | B. to Q. Kt. 2nd  |
| 24. Kt. to Q. Kt. 4th      | B. to Q. R. 3rd   |
| 25. P. to K. 6th           | Q. to Q. sq.      |
| 26. K. R. to Q. B. sq.     | B. takes Kt.      |
| 27. P. takes B.            | Q. R. takes K. P. |
| 28. Q. R. takes P.         | Q. R. to K. 5th   |
| 29. K. R. to Q. B. 7th (e) | Q. to K. B. 3rd   |
| 30. R. takes P. ch.        | Q. takes R.       |
| 31. R. takes Q. ch.        | K. takes P.       |
| 32. Q. to Q. B. 3rd (f)    | R. to K. B. 3rd   |
| 33. P. to K. R. 3rd        | K. to R. 3rd      |
| 34. Q. to Q. 2nd           | R. takes B. P.    |
| 35. P. to K. Kt. 3rd (g)   | K. to Kt. 3rd     |
| 36. Q. to Q. B. 3rd        | R. to K. B. 3rd   |
| 37. Q. to Q. B. 2nd        | K. R. to K. 3rd   |
| 38. P. to K. R. 4th        | P. takes P.       |
| 39. P. takes P.            | K. to R. 4th      |
| 40. Q. to Q. sq. ch.       | K. takes P.       |

And Black finally wins.

(a) This is the move now most generally made; some years ago, however, Kt. takes P. seems to have been preferred by many players.

(b) The strongest move, at this point, according to "Chess Praxis."

(c) P. takes B. is, we believe, quite as good, if not better.

(d) The position seems to require this.

(e) Black should have foreseen, and provided for this formidable coup, by retreating his R. to K. 2nd on his previous move.

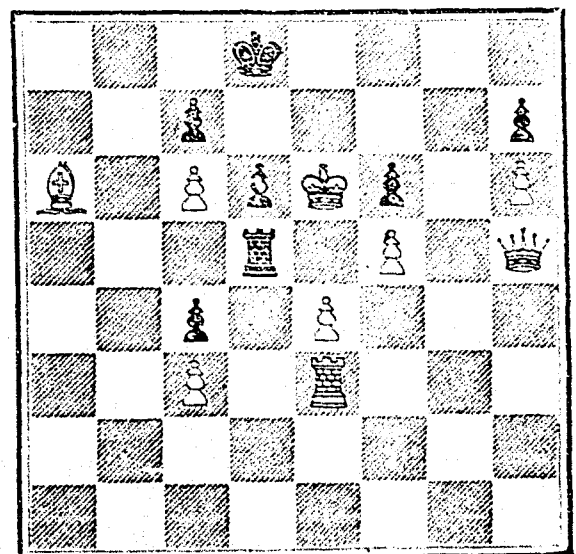
(f) Is there anything better?

(g) Bad: Q. to B. 2nd was preferable: White should have been satisfied with a draw; Black's game for choice after this.

## PROBLEM No. 51.

By Green Horn.

## BLACK.



## WHITE.

White to play and mate in four moves.

## SOLUTION OF PROBLEM No. 51.

| White.                 | Black.       |
|------------------------|--------------|
| 1. Kt. to Kt. 3rd. ch. | B. takes Kt. |
| 2. Q. takes Kt.        | Any move.    |
| 3. Kt. mates.          |              |

## SOLUTION OF PROBLEM No. 52.

| White.             | Black.          |
|--------------------|-----------------|
| 1. Q. to K. B. 4th | R. takes Q. (a) |
| 2. Kt. mates.      |                 |

(a) Should Black play R. takes P., Q. takes R., mates; if any other move, Q. to K. 3rd

## MARRIAGE.

At Brussels, on the 18th ult., M. de Brigny, Seigneur de Pavroosk, Russia, to Lucie, daughter of the late Theo. Doucet, of Montreal.