

an apprentice; from to-day you are an assistant, and now work on till you become a master."

Therewith he gave him a tap on the cheek, as if he were dubbing him a knight, and then the whole party pressed forward to congratulate the affected and astonished parent, as well as Felix, who pressed his old master's hand warmly more than once. This is one of those scenes that can never be effaced from one's memory.—*Temple Bar.*

FANNY FERN ON WOMEN'S FASHIONS.

When I say that the street dress of the majority of respectable women of New York to-day is disgusting, I but feebly express my emotions. I say the respectable women, and yet, save to them who know them to be such, their appearance leaves a wide margin for doubt. The clown at a circus wears not a more parti-coloured costume; in fact his has the advantage of being sufficiently "taut"—to use a nautical phrase—not to interfere with locomotion; while theirs—what with disgusting humps upon their backs and big rosettes upon their shoulders, and loops, and folds, and buttons, and clasps, and bows upon their skirts, and striped satin petticoats, all too short to hide their clumsy ankles—and more colours and shades of colours heaped up on one poor little fashion-ridden body than ever were gathered in one rainbow—and all this worn without regard to temperature, or time or place—I say this presents a spectacle which is too disheartening to be comical. One cannot smile at the young girls who are, one day—Heaven help them—to be wives and mothers! I say to myself, as I see the throat and neck with only the protection of a gold locket between itself and the cold autumnal winds. Wives and mothers! I say, as I see them ruining their feet and throwing their ankles out of shape in the vain endeavour to walk on their heels like corks, fastened far into the middle of the sole of their boots; and those boots so high up on the calf of the leg, and so tightly buttoned across it, that circulation is stopped, and violent headaches follow. Wives and mothers! I say, as I see the heating and burdensome panier tacked upon the most delicate portion of a woman's frame, to make still surer confirmed invalidism.

Oh, the relief it is to see a healthy, firm-stepping, rosy, broad-chested, bright-eyed woman, clad simply with a dress all of one colour, and free from branches and tags! I turn to look at such an one with true respect, that she has the good sense and courage and good taste to appear on the streets in a dress befitting the street; leaving to those poor, wretched women whose business it is to advertise their person a free field without competition. If I seem to speak harshly, it is because I feel earnestly on this subject. Nor is it necessary, in avoiding all this, that woman should look "strong-minded" as a bug-bear phrase goes. It is not necessary that a woman should dress like her grand-mother in order to look like a decent woman. It is not necessary to forswear ornamentation because it were better and more respectable to have it confined to festal and home occasions, and less to the public promenade. She is not driven to the alternative of muffling herself like an omnibus driver in January, or catching consumption with her throat protected only by a gold locket. Oh, I wish that a bevy of young and handsome girls, of good social position, would inaugurate a plain, lady-like costume for street and church wear. I say young and handsome, because if an old woman does this, the little chits toss their heads and say, "Oh! she has had her day and doesn't care now—and we want ours." Now that's perfectly natural and right, too, that you should have your right; that you should, as girls, "make the most of yourselves;" but in doing so, don't you think it would be well not to lessen or to cheapen yourselves? and I submit, with all deference to your dress-makers and to your mammas, that every one of you who appear in public in the manner I have described are doing this very thing—are defiling womanhood, and bringing it into derision and contempt, whether you believe it or not.

SCIENTIFIC.

AN ARTIFICIAL LEECH.—An artificial leech has been invented. It consists of a description of lancet and a suction piston, the lancet acting independently of the piston in making its puncture, and then both the lancet and piston being withdrawn, the body of the instrument is filled with blood. The instrument operates precisely on the general principles employed by the leech.

SEA-WATER AS A TONIC.—At a meeting of the Académie des Sciences the perpetual secretary stated the remarkable fact that excellent bread can be made with sea-water, instead of ordinary spring-water, and this bread appeared to constitute an excellent tonic. Soup or broth, on the contrary, made with sea-water, proved totally unpalatable. M. Boussingault reminded the members that various people living on the seaboard of America drank sea-water, after the previous addition of some fragments of cane-sugar. From the former of these facts, it would appear that the chloride of magnesium during the process of baking is raised to a temperature sufficiently high to effect its destruction, which does not occur when it is merely boiled, as in making soup. In the latter case, it would seem that when cane-sugar is added to it a compound is formed of the sugar with the chlorides which has not the disagreeable taste of the latter.

A VENTILATING CORNICE.—A contrivance for obviating the difficulty in building constructions securing free ventilation, without at the same time creating a draught of cold air, has been patented. It consists of a hollow metal cornice to run round the room, and divided longitudinally into two air-chambers separated by a thin plate of metal. Into the lower of these channels the fresh air is admitted through holes in the wall arranged according to the character and position of the room; thence it descends through perforations on the lower side of the cornice into the room itself by its own greater weight over the vitiated air, which it displaces. As this fresh air has to pass partly along the channel before it comes to a perforated part, and then gets warmed in its gradual descent, no draught is created by it. The vitiated air of the room rises through perforations in the upper channel, whence it is conveyed away by an independent air-flue.

SALT HAIL.—Professor Kengott, of Zurich, states that a hailstorm lasting five minutes occurred at eleven o'clock on the morning of August 20, 1871, the stones from which were found to possess a salty taste. Some of them weighed twelve

grains. They were found to consist essentially of true salt, such as occurs in Northern Africa on the surface of the plains, mainly in hexahedric crystals or their fragments, of a white colour, with partly sharp and partly rounded grains and edges. None of the crystals were entirely perfect, but appeared as if they had been roughly developed on some surface. They had probably been taken up, and brought over the Mediterranean from some part of Africa, just as sand is occasionally transported thence to the European continent and the Canaries by means of hurricanes. A still more remarkable phenomenon has been recently recorded by Professor Eversmann, of Kasan—namely, the occurrence of hailstones, each containing a small crystal of sulphuret of iron. These crystals were probably weathered from some rocks in large quantity, and were then taken up from the surface of the ground by a storm, and when carried into the hail-forming clouds served as a nucleus for the formation of hailstones.

MISCELLANEA.

PRECOCITY.—Wendell Phillips says, "Put an American baby, six months old, on his feet, and he will immediately say, 'Mr. Chairman,' and call the next cradle to order."

The Paris *Soir* thus laconically notices the national thanksgiving:—"The fête which took place yesterday at London for the restoration of the Prince of Wales's health was splendid. There were only seventy wounded and one killed."

The successful competitor of a foot race, on having the prize presented to him, said: "Gentlemen, I have won this cup by the use of my legs; I hope I shall never lose the use of my legs by the use of this cup."

The mania which travellers display in trying to cross a railroad track with their teams before the train comes up, though knowing that the chances are against them, is often greater than a reader would imagine. The Buffalo *Courier* says a gentleman having access to a large number of daily and weekly papers has ascertained that 27 persons were killed in this way in six of the Northern States last year, 14 badly hurt, 80 vehicles demolished, 8 locomotives injured, and 90 horses killed.

GRUMBLERS AT NEWSPAPERS.—Horace Greeley thus hits the nail on the head: It is strange how closely men read papers. We never say anything that anybody doesn't like, but we soon hear of it, and everybody tells us of it. If however, once in awhile, we happen to say a good thing, we never hear of that; nobody seems to notice that. We may pay some man a hundred compliments, and give him a dozen puffs, and he takes it all as a tribute to his greatness, and he never thinks of it; never thinks it does him any good. But if we happen to say things this man don't like, or something he imagines is a reflection on him or his character, see how quick he flares up and gets mad about it. All our evils are duly charged to us, but we never, apparently, get any credit for what good we do.

BRICK-DUST MORTAR.—According to the *Journal of the Franklin Institute*, in the Spanish dominions ordinary brick-dust, made from hard-burned, finely-pulverised bricks, and mixed with common lime and sand, is universally and successfully employed as a substitute for hydraulic cement. The writer, during an engineering experience of six years in Cuba, had ample opportunity for testing its merits, and found it in all respects superior to the best Rosendale hydraulic cement for culverts, drains, tanks, or cisterns, and even for roofs; whether for setting flat tiles, or for making the usual tropical concrete flat roof. It is regularly known there as an article of commerce, sold in barrels by all dealers in such articles at the same price as cement. The proportions used in general practice are one of brick-dust and one of lime to two of sand, mixed together dry, and tempered with water in the usual way. The Romans, our readers will remember, used powdered bricks in their mortar. Its presence serves to distinguish Roman work in England.

WASHINGTON'S LITTLE HATCHET.—The Chicago *Tribune* gives the following new version of the hatchet story: Washington's parents were very particular as to little Georgie's playfellows, never allowing any but his little cousins or nephews to visit him. One of these little playfellows, and in some way connected, was one of the Custis boys. Among other cognomens bestowed upon this youth at his christening was that of Isaac. Well, Isaac and Georgie were playing together in the orchard on the day when the historic cherry tree was disfigured. The parental Washington came along and was much enraged to see his favourite tree cut and hacked in a very bungling manner. So he said to Georgie, "Come here, you rascal! Who cut this cherry tree of mine?" George gazed for a moment at the riding-whip in the old gentleman's hand, and then replied: "Father, I cannot tell a lie—I cut it with my little hatchet."

Mr. Mereweather, the Chairman of the Wilts Quarter Sessions, told a good story at the annual dinner of the Wilts Licensed Victuallers' Association the other day. When quite young, he said, he was living with his father at Calne, and one day (his father being from home) as he was walking in the grounds, a servant came to say that two respectable gentlemen of the Quaker persuasion—he had not a word to say against them personally—desired to see him in the drawing-room. He immediately responded to their summons, and found them in the room with their hats on. He expressed no surprise, because an old Latin author had said that nobody ought to be surprised at anything. Well, these gentlemen informed him that they were about to form a temperance society, of which they wished to enrol himself a member. His reply was, "If you find that you cannot use the good things of life without abusing them, you are right in joining it. I find that I can, and therefore I decline to join it." In the course of some conversation that ensued, they admitted that he was as much entitled to hold his own opinions as they were to hold theirs; and at length he said, "Well, having established that point, permit me to say this. You belong to a sect who do not think it indecorous to sit in a drawing-room with your hats on. I belong to another persuasion, the principal tenet of whose faith is that if your sect sit with your hats on, off go our trousers." The meeting, however, ended courteously, and they did not drive him to that extreme. His friends, he hoped, departed wiser men than they came; at all events, he never saw them in his father's drawing-room again.

TO CORRESPONDENTS.

FLORENCE.—"Told" and "world" do not rhyme very well, and the phrase "as I seen" looks as if a little more intimacy with grammar would not be amiss. We must decline your "Picture."

CHESS.

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

TORONTO v. HAMILTON.
GAME No. 6.

KING'S BISHOP'S GAMBIT.

Toronto, (White.)	Hamilton, (Black.)
1. P. to K. 4th	P. to K. 4th
2. P. to K. B. 4th	P. takes P.
3. B. to Q. B. 4th	Q. to R. 5th, ch.
4. K. to B. sq.	Q. to K. B. 3rd (a)
5. Kt. to Q. B. 3rd	P. to Q. B. 3rd
6. P. to Q. 4th	P. to Q. 3rd
7. P. to Q. R. 4th	P. to K. Kt. 4th
8. P. to K. R. 3rd	P. to K. R. 4th (b)
9. Kt. to K. B. 3rd	Kt. to Q. 2nd
10. P. to K. 5th	P. takes P. (c)
11. Q. Kt. to K. 4th	Q. to K. B. 4th
12. Q. Kt. takes Kt. P.	P. to K. B. 3rd
13. B. to K. 6th	Q. to Kt. 3rd
14. B. to B. 7th, ch.	K. takes B.
15. Kt. takes Q.	K. takes Kt.
16. K. to B. 2nd	B. to Q. 3rd
17. R. to K. sq.	Kt. to R. 3rd
18. P. takes P.	P. takes P.
19. Q. takes B.	Resigns.

(a) Q. to K. 2nd seems to us preferable.
(b) P. to K. R. 3rd would have been more prudent; and, followed by B. to Kt. 2nd, would have left Black's game tolerably secure.
(c) This simplifies the attack;—10. Q. to Kt. 3rd would have been much better.
(d) Premature apparently; for, Black might now have commenced a formidable counter-attack by—12. P. to K. 5th.
(e) This loses the Queen, and, of course, the game is no longer defensible.

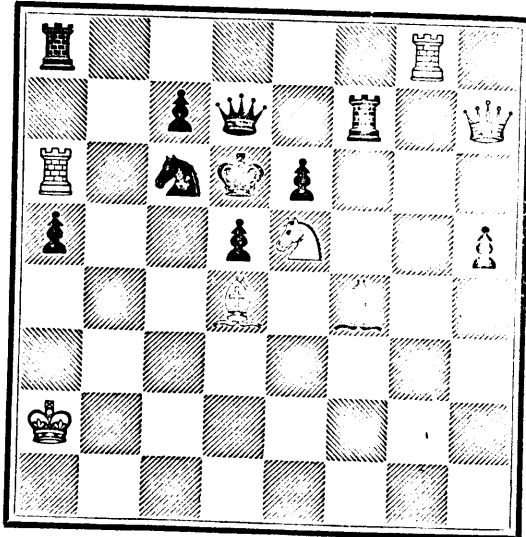
GAME No. 4.
EVANS' GAMBIT DECLINED.

Toronto, G. H. Larminie.	Hamilton, Wm. Marshall.
1. P. to K. 4th	P. to K. 4th
2. Kt. to K. B. 3rd	Kt. to Q. B. 3rd
3. B. to Q. B. 4th	B. to Q. B. 4th
4. P. to Q. Kt. 4th	B. to K. 2nd (a)
5. P. to Q. Kt. 5th	Kt. to Q. R. 4th
6. B. takes P. ch.	K. takes B.
7. Kt. takes P. ch.	K. to B. sq.
8. Q. to K. B. 3rd, ch.	Kt. to K. B. 3rd
9. P. to Q. 4th	P. to Q. 4th
10. Q. to Q. B. 3rd	P. to Q. B. 3rd
11. B. to K. Kt. 5th	Kt. to Q. B. 5th
12. K. P. takes P.	Q. takes K. P. (b)
13. Q. takes Kt.	Q. to K. 5th, ch.
14. B. to K. 3rd	Kt. to Q. 4th
15. Kt. to Q. 2nd	Q. takes K. Kt. P.
16. Castles. (Q. R.)	Q. B. P. takes P.
17. Q. to Q. Kt. 3rd	Q. B. to K. 3rd (c)
18. Q. R. to K. Kt. sq.	Q. to R. 6th
19. R. to Kt. 3rd (d)	Q. to R. 4th
20. Q. takes P. (e)	B. to R. 6th, ch.
21. Resigns.	

(a) B. to Kt. 3rd is more generally played.
(b) If this was an oversight, it turns out to be a very fortunate one; White recovers the piece he has sacrificed, but his opponent gets a very menacing position in a few more moves.
(c) White is now encompassed by dangers, and it will be difficult to escape without serious loss.
(d) Lost time apparently;—B. to Kt. 5th seems better.
(e) There is no resource after Black's reply to this fatal slip.

PROBLEM No. 44.
By J. W.

BLACK.



WHITE.

White to play and mate in four moves.

ENIGMA No. 23.

(The two following positions are from the *Dubuque Chess Journal*, and were entered as Tourney Problems.)

White.—K. at K. R. 3rd, R. at Q. R. B. at Q. R. 4th.
Black.—K. at K. R. 4th, R. at Q. R. 3rd, B. at K. Kt. 4th, P. at K. R. 3rd.

White mates in three moves.

ENIGMA No. 24.

White.—K. at Q. 7th, Rs. at K. R. 8 h. and Q. R. sq.; B. at K. B. sq., Ps. at K. R. 6th, Q. B. 3rd, Q. Kt. 2nd, and Q. Kt. 6th.
Black.—K. at Q. Kt. 2nd, B. at Q. R. 7th, P. at Q. Kt. 6th.

White mates in three moves.

SOLUTION OF PROBLEM No. 43.

White.	Black.
1. B. to K. 7th, ch.	K. to K. 3rd
2. B. to K. Kt. 4th, ch.	P. in.
3. B. to K. 2nd	Any move.
4. B. mates.	

SOLUTIONS RECEIVED.

PROBLEM No. 41.—A. P., Lewis; J. H. G., and S. K., St. John N. B.

PROBLEM No. 42.—Britannia.

ENIGMA No. 22.—A. P., Lewis; J. H. G., and S. K., St. John, N. B.