OSBORNE'S MISTAKE.

LILIAN BURLEIGH was fifteen years old when she and her widowed mother left their home, which had been sold by the sheriff to pay a debt incurred during the long and fatal illness of Mr. Burleigh. In hope of employment the mother and daughter removed to the city. Here they encountered the usual fate of the stranger-poor, alone and helpless in the seething, selfish crowd, they fought the grim fight with the fiend of poverty, till, in the weary struggle, Mrs. Burleigh became at last the victim of hopeless illness, a new burden upon Lilian's young shoulders.

Chance led the poor girl to the house of Mrs. Vernon. The lady, attracted first by the sorrowful beauty of the young girl's face, and her quiet demeanour, was interested in her story, accompanied her home to verify it, and became, from that day, the best and kindest of friends to the widow and her child.

Employment enough was obtained among her friends to remove all sense of dependence from Lilian's mind. Her charity was bestowed in a manner not to wound the sensitiveness that could not endure beggary. Her own physician lent his skill to soothe Mrs. Burleigh's departing days; and when death had released Lilian from her charge, this kind friend took the orphan to her home.

Lilian had lived with her friend two years when Bernard Osborne, Mrs. Vernon's brother, came home from his travels. To see the sweet, graceful girl in simple mourning, who instructed his sister's children, and was his sister's friend, was to feel a strange, unwonted interest in her.

He was often at his sister's house, often saw Lilian, and at length gave evident signs of his admiration. That she avoided him only inspired him with a more determined pursuit. He was the first man of the world, handsome, fluent, accomplished, that Lilian Burleigh had ever seen. How he impressed her young heart! How plainly he wrote his image upon its virgin pages! Ere she half knew her danger he had become the light of her eyes, almost the life of her heart.

But she did not yield readily. She resisted all his protestations, all his offers; after putting him to every test she could devise, until, finding his purpose still unaltered, and his love even more ardent in expression, she at last yielded to the wishes, the demands of her own heart, no less than to his entreaties, and promised to become his wife.

Once betrothed to him she revelled in the sweet dream of love, and cast all fears aside, the future was no more dreaded, the past forgotten.

Three months later came a strange, unexpected summons to the death-bed of Walter Burleigh, her uncle.

This man had neglected and despised his brother, had refused all aid to the widow and orphan, and when Mrs. Vernon, who had learned something of him on inquiring of Lilian about her friends, wrote to him during Mrs. Philip Burleigh's last days, his only response had been a pitiful sum of money, extorted rather by the influence of Mrs. Vernon's name, than by any kindly feeling.

But when he was dying, he bethought him of his niece, the sole person in whose veins his own blood was running, and he summoned her to his side. He died, and Lilian found herself heiress of all his wealth.

Something, perhaps the strange feeling of pain that it brought her, perhaps the desire to be received once more as she had ever been, kept Lilian silent in regard to her new wealth. She wrote to Mrs. Vernon that her uncle had remembered her in his will, but in a manner that conveyed no idea of the truth. To Osborne she did not write at all, for, strangely enough, his letters had ceased about the period of her uncle's death, and after writing once or twice without receiving a reply, she was forced to wait until time should solve the mystery.

It but rendered her more impatient, as she chafed under the long delay.

At length she was at home, for so she had long learned to call Mrs. Vernon's house. At length she was slowly descending the stairs to meet her lover—slowly, because with the impatient joy that would have sent her flying down the staircase, was struggling that terrible but dim fear, Why had he not written? Why had he delayed seeing her until the second day of her return was well-nigh past? She had spent the two days alone, for the Vernons had been called into the country by some gathering of their family.

He stood in the centre of the room, hat in hand. He had evidently no intention of remaining. As she approached him he bowed, but did not look at her offered hand.

"Bernard!"

He bowed again.

"Will you tell me what this means?"

"It means that I am here in answer to your notes of yesterday and of this morning. One would have sufficed to inform me of your return, but I remembered that you had seen little of the world, knew little of its usages. Can I do anything for you?"

"Tell me what this means? Why does my betrothed husband receive me in this manner?"

"Since you must know, I will tell you. I am betrothed to you no longer. My silence should have told you that. You will remember that you were reluctant to become engaged to me; you arrayed before me all the worldly reasons against our marriage. These worldly reasons having received due consideration in your absence, I have determined to annul the engagement. You were unwilling to love me. You will do as you did before, live with Mrs. Vernon, probably, though it may embarrass us both to meet, and though the little legacy, which I understand your uncle has left you, may enable you to dispense with your employments here."

"Oh, Bernard——"

"Hear me out, if you please. I cannot be hindered and dragged down, in the career I have resolved upon, by a wife. I must forego that happiness, in order to succeed, unless, indeed, my wife could bring me wealth."

"But, Bernard——"

"These interruptions are in the worst possible taste, Miss Burleigh. But I have little more to say. I would but bid you farewell, with wishes for your happiness. You have so much wisdom and self-control that I am sure you will soon conquer this emotion, and learn to agree perfectly with the view I have taken of the matter in question."

He met her gaze through the tears that streamed from her beautiful eyes, with a glance as hard and cold as his words. He bowed again, and was gone.

Lilian was ill when the Vernons returned. She had borne a great deal, and the last shock prostrated her. She was not dangerously ill, nor did she lose reason. She had much time for thought, and she, now that his conduct had removed the illusion, saw her lover as he really was. It was not easy, not possible to forget him all at once, nor even to cease feeling tenderly towards him. But he had deserved her contempt, and she could no longer love where she despised.

Before she was quite well, he learned from the Vernons the story of her wealth. After that he made an attempt to see her. Relying upon her simplicity and singleness of heart, he represented that he felt that he had been too harsh, that he had reconsidered the matter, and was willing, especially as she felt the dissolution of the engagement so severely, that it should be renewed. Lilian's only answer was: "*It is too late.*" She would not trust herself to speak the contempt she felt.

She did not pine, nor did she live single. Her heart was not broken; but when it was sought, some years later, by one every way worthy to possess it, it was found to be in excellent condition. Lilian Burleigh has long been a happy wife and mother.

Bernard Osborne's career has never been accomplished, never even commenced. He ascribes his failure to Lilian's fickleness, and asserts that as soon as she discovered she was an heiress, she cast him off, leaving him to struggle against his wounded feelings and his confidence betrayed. This struggle is the sole employment of his life, so far as his friends can discover.

I MISS THEE IN THE VILLAGE CHOIR.

I MISS thee in the village choir,
My own dear Aveline, with thy voice
The sweetest, tenderest ever heard
Where mortal tones rejoice
Over a Saviour's deathless love
That leadeth such as thee above.

Oh, agony! one whispered now,
That thou wert on a bed of pain,
And I might never hear that voice,
Heart-purifying voice, again:
I cannot, will not think it so—
Too deep, too dark, too dread the woe;

Yet still if Heaven will claim its own,
My angel gone before me! thou,
Wearing for Eden's fadeless wreath
On thy all-radiant brow,
Wilt pray for one who loved thee so
In earth's tempestuous night below.

THE ELECTRIC TELEGRAPH.

AMONG the most successful applications of science to the ordinary business of life, the electric telegraph is strikingly conspicuous.

The electric telegraph ranks with navigation and the mariner's compass as a means of establishing the common brotherhood of mankind. It has already united the Continent to England, and, stretching across the vast Atlantic, it has joined the New World to the Old, and enabled Queen Victoria to converse with the President of the United States. And although this transatlantic communication has been broken up, the conveyance of messages to and from the British and American coasts establishes the practicability of the scheme, and assures us of its ultimate success. The institution of the London telegraph is another interesting feature in association with this novel means of communication. We have not all of us occasion to send messages to the continent nor to the United States, but to transmit a message from one end of London to the other, and receive an answer in the course of a few minutes, is what we can all appreciate. All over England and Scotland the electric wires, also, are extended for our benefit, and are employed for our advantage, enabling us to conduct business with more certainty and dispatch; to send or to receive assurances of health and safety; to forewarn of danger; or to outstrip the criminal in his flight, and forearm the law for his capture.

To those who are unacquainted with the means by which electricity is employed for telegraphic communication, a few particulars as to its origin and application may not be without interest. We notice, therefore, in the first place, that the effects of the electric telegraph are produced by a practical application of the galvanic battery, by which the electric current is excited and conveyed—for any length of distance—along metallic wires, until it reaches its appointed destination.

In the telegraph as we now possess it, the improvements of successive years have culminated; but telegraphic communication is said to have originated with that ingenious mechanic, Mr. James Bain. It appears, however, that other men of genius engaged in similar experiments. Sommering in 1814, Ampere in 1820, &c.; but these experiments were first adapted to practical purposes by Professor Wheatstone.

For the construction of the telegraph in the open country, posts, at equal distances, are placed along the sides of the railway. To these rings of stoneware, to serve as insulators, are affixed, and through these rings iron wires are drawn. The surface of these wires is coated with zinc. This protects them from the atmosphere. Observe that the rings are secured to narrow boards on either side of the upright posts, and these are again insulated by stoneware supports.

There is a contrivance at every fifth post for maintaining the wires at the right degree of tightness, and this because heat dilates them and cold contracts them.

At each station finer copper wires—attached to the wires of which we have spoken—are brought down perpendicularly into a room, and entering the dial-case, terminate each in a coil.

Between two of the coils is suspended a double needle, magnetised. One is outside on the dial's face, and the other moves in the interior of the coils.

Of these two needles the poles are opposed to each other. Move the handle beneath the needle to the right—and the end of the wire forming the right hand coil is so brought into contact with the battery at the station, that a current of positive electricity is sent through it. It may be in a direction from above, downwards in front, and up again behind.

As each turn of the wire acts individually upon the needle, the result of the combined operation of all is to cause a powerful deflection of the north pole to the left hand of the positive current of galvanism; and the position of the needle would be at right angles to the coil were it not restrained by a small stud on the face of the dial, which keeps it in a diagonal position.

The effect is doubled by the contrary course of the current in the back of the coil. This produces the same deflection on the contrary poles of the interior needle.

The reverse movement of the handle to the left, occasions the positive current to take a contrary course in the left hand coil; that is, from below, upwards in front, and down again behind, and brings the north pole to the left hand of this electric stream. When one coil is in activity, its antagonist is only inert metal; being disconnected

from the source of galvanic power. The apparatus at all stations being precisely alike, the connecting-wires bring them all to the same electric state, and thus occasion, throughout, the same divergence of the needles.

There are, of course, various applications of the principle of the electric telegraph, and several

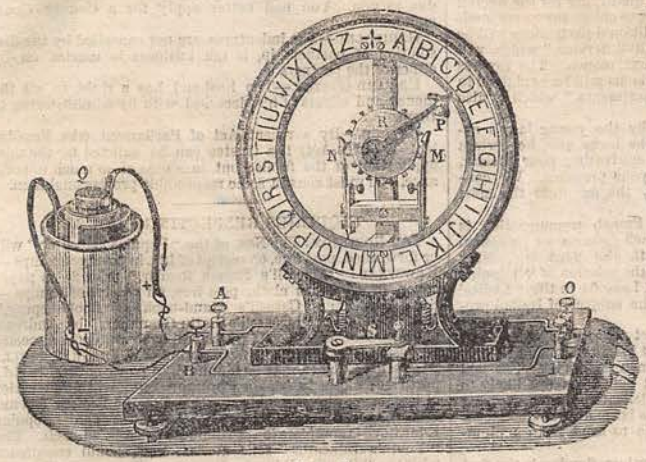


FIG. 1.

modifications have been introduced. We may here, however, illustrate the working of the dial-plate by one of its simple forms.

In this form of telegraph, two dial-plates are used; the *manipulator*, as shown above, employed in transmitting signals; and the *receiver*, as shown below, for receiving signals.

The former of these dials is associated with a battery, Q, and is connected with the latter by two

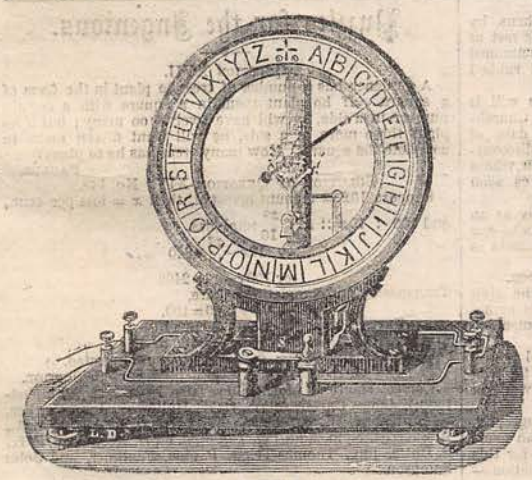


FIG. 2.

metallic wires, either iron or copper; one extending to the *receiver* at the distant station, and the other extending from the *receiver* to the *manipulator* at

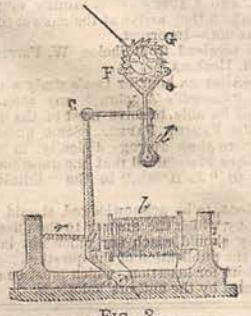


FIG. 3.

the starting point. The dial-plates are marked with the letters of the alphabet, and are furnished with a movable needle. The *hand* of the operator moves the needle, and spells out the message on the dial of the *manipulator*. The *electric fluid* moves the needle on the receiving dial at the distant station.

The action of the electric fluid may be thus described. From the battery, Q, it proceeds along the copper wire, A (fig. 1), to a piece of brass, N, in contact with a metallic wheel, R, from thence into a second piece, M, and so on to O, the wire which extends to the distant station. On reaching the latter, it enters the bobbin of an electro-magnet, *b*, concealed in fig. 2, but shown in fig. 3.

This electro-magnet is fixed horizontally at one of its extremities, and by the other attracts a soft iron armature, *d*, forming part of a bent movable lever. The result of the action of the electricity is to communicate to it a motion backwards and forwards, acting on the racket-wheel, C, by the axis of which moves the needle on the receiving plate.

Without entering at further length into the principle of the electric telegraph, we have stated enough to render it easy to understand how the correspondence is carried on. A very able article on the subject (from which our illustrations are borrowed) appears in the "Popular Educator," vol. vi., p. 682.

Facts and Scraps.

THE COW AND THE MACKINTOSH.—I was one day fishing in the Ness out of a boat, says a traveller, when I noticed a cow inquisitively examining some things which I had left by the water-side. On landing, I found that she had been influenced by other motives than those of mere curiosity, having eaten up the whole of one side (the button half) of my new mackintosh. Happening, shortly afterward, to meet the miller whose property she was, I exhibited to him the mangled evidence of her misdeeds, expecting, at least, to meet with something like sympathy for my loss. His sympathies were, however, all on the other side. He surveyed it for some time in silence and with an air of dejection, and then simply exclaimed, "Eh, but she'll be no the better o' the buttons."

THE SMALLER SHADES OF CHARACTER.—The minuter shades of character do not, of themselves, make up a valuable person. They may be possessed in perfection, separate from great excellence. Still, as that would be a feeble mind which should be composed of inferior qualities only, so that would be an imperfect one in which they were wanting.

POOR CHILDREN IN CITIES.—Grace Greenwood says:—"Had I the power, I would every year have a grand irruption of the children of the poor from the cities into the country. I would bring them from their dreary exile in those sickly Cayennes of brick and mortar; I would bring them down from their lofty, perilous prisons of poverty, the crowded tenement-houses; I would bring them up from noisome basement dungeons; and would lead them out beyond the hot pavements, past factories, slaughter-houses, cemeteries crammed with little coffins—far out, till the cool green of the country should close around them—far down to the ocean-beach, where the waves would lap their feet, and the sea-breeze frolic with their hair—or far up, where the mountain-winds would kiss their wan cheeks into unwonted bloom. I would have Nature welcome home all her little ones for a grand summer festival, and minister to them with all her strengthening, purifying, divinely tender influences."

THE Marquis de Favières, a great borrower and a notoriously bad paymaster, called on Samuel Bernard, the great financier, one morning, and said:—"Sir, I am going to astonish you; I am the Marquis de Favières; I do not know you, and I come to borrow five hundred louis of you." "Sir," replied Bernard, "I am going to astonish you yet more; I know you, and yet I am going to lend them to you."

Small Change.

UNQUESTIONABLY if a man means well the more he means the better.

AN Irishman once observed that mile-stones were kind enough to answer your questions without giving you the trouble to ask them.

"MY love," said Boyle to his wife, "why is a Laplander like an umbrella-maker? D'ye give it up?—'Cause he derives his support from the rein deer."

A SOLDIER being asked if he met with much hospitality when he was in Ireland, replied—"That he was in the hospital nearly all the time he was there."

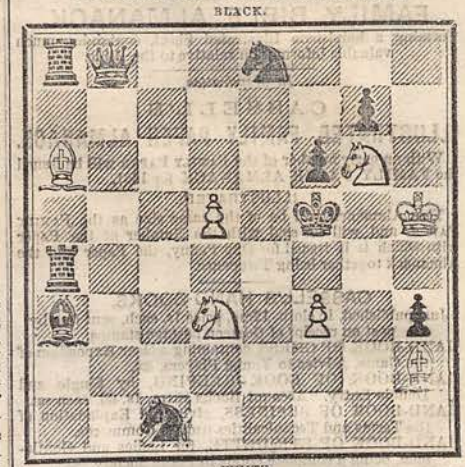
WHY is a fireplace an agreeable affair in summer as well as in winter? Because at either season it is always grateful when coaled.

THE ancient cooks carried their art to the most whimsical perfection. They were able to serve up a whole pig boiled on one side and roasted on the other.

Chess.

Problem No. 223. By R. B. WORMALD, Esq.

BLACK.



WHITE.

White to move, and checkmate in three moves.

GAME

Thirty-first of the series between Labourdonnais and M'Donnell.

(QUEEN'S GAMBIT.)

WHITE (Labourdonnais).	BLACK (M'Donnell).
1. P to Q 4	1. P to Q 4
2. P to Q B 4	2. P takes P
3. P to K 3	3. P to K 4
4. K B takes P	4. P takes P
5. P takes P	5. K Kt to B 3
6. Q Kt to B 3	6. K B to K 2 (*a*)
7. K Kt to B 3	7. Castles
8. Castles	8. P to B Q 3
9. P to K R 3	9. Q Kt to Q 2
10. Q B to K 3	10. Q Kt to Q Kt
11. K B to Q Kt 3	11. K Kt to Q 4
12. Q to K 2	12. K to R
13. Q R to K	13. K B to Q 3
14. K B to Q B 2	14. P to K B 4
15. K Kt to K 5	15. P to K B 5 (*b*)
16. Q to K R 5	16. K Kt to K B 3
17. K Kt to K Kt 6 (ch)	17. K to Kt
18. K B to Q Kt 3 (ch)	18. Q Kt to Q 4
19. Q Kt takes Kt	19. Q P B takes Kt (*c*)
20. B takes P (ch)	20. Kt takes B
21. Q takes Kt (ch)	21. R to K B 2
22. Kt to K 5	22. Q B to K 3
23. Q takes Q B	23. B takes Kt
24. P takes B	24. P takes B
25. Q R takes P (*d*)	25. Q to K
26. Q takes Q (ch)	26. Q R takes Q
27. P to K B 4	27. K R to Q B 2
28. K R to K B 2	28. K to K B 2
29. P to K Kt 4	29. R to Q B 4
30. K R to K 2	30. P to Q R 4
31. K to B 2	31. P to Q Kt 4
32. K to K B 3	32. P to Q Kt 5
33. P to Q R 3	

And the game was won by White.

(*a*) See, for remarks on the opening, the Queen's Gambits previously published in the FAMILY PAPER.

(*b*) M'Donnell's favourite advance of the king's bishop's pawn in these games. Labourdonnais cleverly takes advantage of this mistake, and thus early may be said to have a winning position.

(*c*) He would evidently have been mated on the next move, had he captured his adversary's queen.

(*d*) The series of moves, beginning with his sixteenth, has been faithfully played by Labourdonnais, and the result is a clear gain of two pawns. All interest in the game is now at an end; victory being a mere question of time.