

THE GRAPHIC BALLOON.—THE CAR AND ITS CONTENTS.

As a supplement to the illustration given last week of the Graphic balloon we reproduce in this number a sketch of a section of the car, as designed by Professors Wise and Donaldson, from which a good idea may be formed of what the domestic life of the transatlantic voyagers is likely to be. Both the illustration and the following description are copied from the *Daily Graphic*:

This car is now being carefully constructed under the direct supervision of the latter, and when completed will be a marvel of lightness, strength, and convenience. It will necessarily be a combination of store-house, dormitory, workshop, and observatory. It will be supported at one point only—its apex—and besides its own weight and that of the passengers and ballast, will have to bear the strain of the life-boat below it.

THE CAR.

It may be described in brief as to consist, in outline, of twelve stout ropes looped, with their twenty-four ends tied in the supporting ring above. These loops will be distended into a bell-like shape, by three great hoops of stout ash, the lower of which, eight feet in diameter, will support a flooring strong enough to hold most of the ballast. This flooring will be made of two layers of narrow ash boards, the direction of one layer being at right angles to that of the other. This arrangement is designed to aid in resisting the pressure on the hoop from the ropes, which will pass around under the bottom of the car. Four and a half feet above this floor is another, resting on a hoop ten feet in diameter. This will consist of one layer of light pine boards, to be removed and thrown out if necessary, but which, nevertheless, will be the "main floor" of the airy tenement. Between these two floors, and extending about four feet above the upper one, the siding will consist of stout rope network, with meshes of about four inches. Outside of this, and between it and the ropes, there will be a casing of stout canvas or duck, extending, however, only to the upper floor. About ten feet above this floor will be placed the third distending hoop, six feet in diameter, above which the main ropes will taper directly to the ring.

THE COVERING.

From the apex to the main floor the car will be covered with duck, the lower part of which will be cut and arranged to be rolled up in separate pieces, like curtains. There will be four windows cut in the canvas siding, to look from in case it will be necessary to fasten the curtains down. There will also be an opening through the top, out of which a person may climb on a rope ladder into the ropes above. A main-hole will also be cut in the floor to allow access to the "cellar," where the ballast, &c., is stored. From ring to lower floor the car will be about sixteen feet. The ring will be a huge affair, consisting of three different pieces of metal, and is designed to stand all tests, either of tension or jar. As an appropriate adornment, flags of various nations will be displayed from the upper part of the car.

THE CARGO.

Still more interesting, perhaps, than a description of the car, is a list of the things to be placed in it. The most prominent object in the lower apartment, represented in the sketch, is a basket, capable of holding a number of men, and designed to be attached to the ring above, should it be found necessary to cut the large car away piecemeal to lighten the air ship, or in case it should be thought desirable, through distrust of the large balloon from injury, it may be attached to the small balloon, the tender, and the party thus be given a new lease of life. It will also enable them to separate, leaving a portion only to continue the voyage, the main balloon being thus relieved of a portion of its fixed weight. In this apartment also will be placed the ballast, consisting of sand in twenty-five pound bags, and in great part also in casks of water.

THE WATER BALLAST.

will be especially valuable, because a small stream may be set flowing at night, gauged to compensate the loss of buoyant power of the balloon. Here, too, will be placed in abundance various kinds of provisions, consisting largely of canned food. Axes, hatchets, grappling-irons, rope in coils, and other necessary things, will be stowed away. Torpedoes, with parachute attachments, will also be provided, to be let fall in the night. These will be set so as to explode when they strike the water. The direction of the flask will indicate the way the balloon is drifting. The furniture of the upper department will be apprehended at a glance at the picture. The main feature is the windlass, which may be put to several uses, the principal of which is the management of the small balloon, and the raising and lowering of the trail rope. It should be remembered that the balloonists will be prepared with rope to send the small balloon up two thousand feet above them, for the purpose of testing currents without wasting ballast. The windlass will also be used for raising or lowering the boat. A cage of carrier pigeons, for half daily, or even hourly, communication with the shore they are to leave, will be suspended overhead.

THE SCIENTIFIC OUTFIT.

will be of the completest kind, consisting of all the latest improvements in meteorological instruments, both for observation and for safety in managing the balloon. Among those for the latter purpose is an electric alarm apparatus, invented by Professor D. Donaldson, to be attached to both the mercurial and the aneroid barometer. Thus, if the mercury in the former should rise to a certain height, by an increased air-pressure, showing a descent during the night to a dangerous nearness to the surface of the earth, alarm bells will ring, and the watching aeronauts will be warned to throw out more ballast. Wet and dry bulb thermometers, hydrometers, hygrometers, marine glasses, telescopes, compasses, instruments for calculating the position of the balloon astronomically, mathematical tables, and everything that science can suggest, will be furnished of the most approved styles and manufacture. The occupants of the car will be supplied with air mattresses, camp-stools, a small writing table, a lime-stove for making coffee and boiling eggs, and such necessary toilet furniture as they may desire.

Chess.

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

TO CORRESPONDENTS.

Correct solution of Problem Nos. 89 and 90 received from Chas. S. B., Montreal; of No. 89 from J. H. St. Liboire, and of No. 90 from A. T. M., Quebec.

Correspondence game just concluded between J. Henderson, St. Liboire, and J. A. Russell, Toronto.

Evans' Gambit.

White—J. H. Black—J. A. R.

1. P. to K. 4th
2. Kt. to K. B. 3rd
3. B. to Q. B. 4th
4. P. to Q. Kt. 4th
5. P. to Q. B. 3rd
6. P. to Q. 4th
7. Castles.
8. Q. to Kt. 3rd
9. P. to K. 5th
10. Kt. takes P.
11. Kt. to K. 2nd
12. P. to Q. 3rd
13. Q. to Kt. sq. (a)
14. Kt. to K. B. 4th
15. B. takes Kt.
16. R. to Q. sq.
17. P. to Q. R. 3rd
18. B. to K. Kt. 3rd
19. B. takes P.
20. Q. to Q. 3rd
21. R. to Q. 2nd
22. Q. R. to Q. sq.
23. B. to R. 6th
24. Kt. to Q. 4th
25. B. takes B. ch
26. Q. takes B.
27. R. to Q. B. 2nd
28. R. to Kt. 2nd ch.
29. R. to R. sq.
30. P. to K. B. 4th
31. B. to B. 2nd
32. Q. to Q. B. 5th (a)
33. R. takes Kt.
34. P. to Kt. 3rd
35. R. to Kt. 7th
36. P. takes P.
37. K. to R. 2nd
38. R. at R. sq. takes P.

(a) This move constrains the motions of the Queen's Rook: Q. to Kt. 2nd is better.

(b) This and the following move of the Kt. appear to lose time.

(c) The first player now considers that he has a forced won game.

(d) 32. B. to R. 4th ch.

(e) 33. R. takes Kt.

(f) 34. R. takes R. P.

(g) 35. Q. to B. 7th win.

(h) 36. B. to Kt. 3rd. &c.

(i) 37. R. takes P. ch.

(j) 38. R. takes Q. ch.

(k) 39. Q. to Q. 6th ch.

(l) 40. B. to B. 5th and mates in two moves.

White wins both Rooks, or he may take the Q. with B., having a forced won game.

Game played by correspondence between Mr. C. H. Wheeler of Chicago, and Mr. Orchard of South Carolina.

Scotch Gambit.

White—Mr. W. Black—Mr. O.

1. P. to K. 4th
2. Kt. to K. B. 3rd
3. P. to Q. 4th
4. B. to Q. B. 4th
5. P. to Q. B. 3rd
6. P. to K. 5th
7. P. takes Q. P.
8. Castles.
9. R. to K. sq.
10. K. takes Kt.
11. Kt. takes Kt.
12. K. to Kt. sq.
13. K. to R. sq.
14. Q. to K. B. 3rd (a)
15. Q. takes K. B. P. ch.
16. Q. takes Kt. P.

(a) Black is evidently not familiar with the usual continuation.

White.

1. B. to Q. Kt. 5th

With at least an equal game.

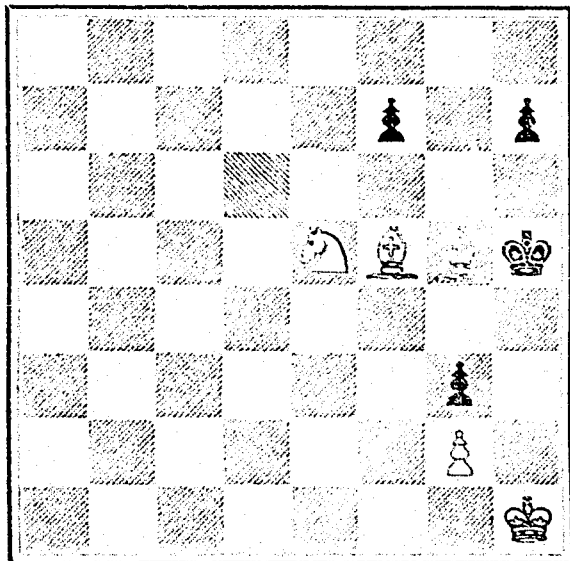
(b) There does not seem to be any better move left.

(c) The attack is correctly played throughout.

(d) Losing off-hand: much better to have taken the Bishop.

PROBLEM No. 91.
By Mr. R. H. Ramsey

BLACK.



WHITE.
White to play and mate in four moves.

SOLUTION OF PROBLEM No. 89

White. Black.

1. R. to K. B. 3rd
2. Kt. ch.
3. R. to Q. sq. mate.

VARIAION.

1. R. to Q. ch.
2. B. takes P. dis. ch. and mate.

BIRTH.

At Montreal, on 2nd July, Mrs. C. D. Theriault of a daughter.

AMATEUR THEATRICALS.

The regular theatre nowadays is, says a writer in *London Society*, unfortunately, highly capable of leaving a sense of deep impression upon the audience; but the vast majority of amateur performances would be shrouded in the saddest gloom if they were not usually succeeded by the exhilarating effects of supper. Why are such exhibitions usually so extremely bad? The actors are generally intelligent people, and some of them have evidently a certain amount of natural talent. The reason is not very recondite. Amateurs do not, or will not, understand that histrionic abilities are almost worthless if they are not duly drilled. It is not sufficient that the actor can repeat his words clearly and with proper emphasis; he must recollect that he is playing up to other actors and he must consider the stage effect upon the audience. If amateurs could see themselves as they are seen, they would, perhaps, realize the fact that their ignorance of stage business and its technicalities weighs terribly against their tolerable abilities and evident earnestness. Rushing into a difficult performance, as they usually do, after half-a-dozen rehearsals, it never seems to occur to them that they are presenting to their audience what would be an execrably bad first night of representation of trained professionals. They ask a great many people to come and see them act, and scarcely take ordinary pains to do justice to themselves, and to pay proper respect to their visitors. They appear to be under an impression that so long as they have a pretty close acquaintance with their words, and can infuse a certain amount of humor or pathos into what they say, they have done all that is necessary. The last thing that they think of is the elaborate work of stage management; and hence the usual ludicrous result.

What amateur does not know the mutual congratulations that go on behind the cramped wings of the temporary stage—how well the piece is going! That is to say, there has not been a dead stage wait, and no particular strain has been put upon the services of the prompter. Of course, if the object of the actors is merely to arrive at a conclusion of the performance, such congratulations may well be deserved. But if he has any regard for the general effect upon the audience, and the impression he may leave upon their minds after the curtain has finally fallen, the amateur actor must make up his mind to take far greater trouble about his rehearsals. Amateurs generally think that the object of rehearsals is to satisfy the actors that they are perfect as far as their memories are concerned, they neglect the vast importance of stage business, and leave it to take care of itself at the representation, even if they ever give it a serious thought. Whether they go out right or left, whether a table is centre, up the stage or down the stage, whether a "situation" is effectively arranged or not, whether the entrance or exit of the principal character is dramatically rendered—are matters to which amateurs appear to be sublimely indifferent. The absolute and undeniable truth of this assertion justifies one in saying that the great fault of amateurs rests in their thinking only of their individual selves, and in being totally regardless of their fellows and their audience. Gabble, gabble, gabble, the amateur pours out his words in a relentless flood, totally regardless of the fact that his speech has to travel round a considerable area, and he moves awkwardly about the stage, utterly heedless of the great principle of *repose*, without which no man can hope to be a successful actor. His companion on the stage may have to say something which wins applause or laughter; the noise is nothing to him—he goes with his words, caring nothing for the potent fact that the audience are losing the whole point of his speech. If amateurs could only condescend to attend more carefully to their rehearsals, and submit to the stage management of some competent professional, there is no reason why, if they possess an ordinary amount of histrionic power and general intelligence, they should not afford a very tolerable evening's entertainment. Let amateurs attend to their rehearsals as strictly and untiringly as professionals do, and they will have no fear of hearing critics talk about their performances as being not "amenable to criticism"—the most doubtful it is possible to pay.

News of the Week.

THE DOMINION.—Governor Archibald was sworn in at Halifax on Wednesday week. The Lord Gordon case was closed at Fort Garry last week. Judge Betourney committing all the prisoners for trial at the next October Assizes. The Menominee deputation have decided to advise their friends to settle in Manitoba, and have selected lands for their settlement. They are much pleased with the country, are satisfied with the liberal terms offered, and express their gratification at the cordial reception of the Minister of Agriculture. They promise that one thousand would settle early next spring. The Minister of Agriculture has also made arrangements to secure one thousand Norwegian settlers for to settle in Manitoba early next spring, with prominent influential parties, which are sure to succeed. A fourth cable has been successfully laid between Sydney, C.B., and Placentia, Nfld. The Governor-General was expected at Halifax on Tuesday. There will be a ball in his honour, and a grand review of the regular and local troops. Two hundred families from Wisconsin are about to settle in Manitoba. The Ottawa summer meeting opened on the 22nd. It was a most successful affair. The Gostord R. K. is to be put into running order immediately.

THE UNITED STATES.—Baltimore was last week the scene of an extensive conflagration by which ten blocks were burnt. Loss variously estimated at from \$200,000 to \$300,000. Cholera reported from Cincinnati, Columbus, O., Princeton and Indian Creek, Ind., Carmi and Mt. Carmel, Ill., Lagrange, Ky., and Wheeling, Va.

UNITED KINGDOM.—A banquet was given at Richmond last week in honour of Canadian riflemen who are in England to participate in the Wimbledon contests. The Right Hon. Viscount Bury presided. A London despatch says Mr. Whalley, member of Parliament and a friend of the Tichborne claimant, will soon visit the United States to solicit subscriptions for the claimant. The Orangemen of Armagh made a demonstration on the 23rd ult. in honour of the visit of a number of delegates from Canadian Lodges. Fully 5,000 persons participated.

FRANCE.—In the Assembly recently a vote of confidence in the Government was adopted by 400 ayes to 270 nays. This large majority on the eve of recess is regarded as significant, and is contrasted with the vote by which the present Government was called into being on the 24th of May, when President Thiers was defeated. The town of Mezière has been evacuated by the Germans. The Government has refused a request of the Spanish Government to allow war material to pass through French territory. The proposition for the re-