

in a certain proportion. He imagined that every animal might live for six or seven times as many years as were requisite for the completion of its growth. But this calculation is not in harmony with facts, so far, at least, as man is concerned. His period of growth can not be estimated at less than twenty years; and if we take the lower of the two multipliers, we get a number which, in the light of modern evidence, can not be accepted as attainable. If the period of growth be multiplied by five, the result will in all probability not be far from the truth. If we seek historical evidence, and from it attempt to discover the extreme limit of human life, we are puzzled at the difference in the ages said to have been attained. The longevity of the antediluvian patriarchs when contrasted with our modern experience seems incredible. When we look at an individual, say ninety years of age, taking even the most favourable specimen, a prolongation of life to ten times that number of years would appear too absurd even to dream about. There is certainly no physiological reason why the ages assigned to the patriarchs should not have been attained, and it is useless to discuss the subject, for we know very little of the conditions under which they lived. It is interesting to notice that after the Flood there was a gradual decrease in the duration of life. Abraham is recorded to have died at 175; Joshua, some five hundred years later, "waxed old and stricken in age" shortly before his death at 110 years; and his predecessor, Moses, to whom 120 years are assigned, is believed to have estimated the life of man at threescore years and ten—a measure nowadays pretty generally accepted. With regard to sex, Hufeland's opinion was that women were more likely than men to become old, but that instances of extreme longevity were more frequent among men. This opinion is to some extent borne out by Dr. Humphry's statistics; of his fifty-two centenarians thirty-six were women. Marriage would appear to be conducive to longevity. A well-known French *savant*, Dr. Bertillon, states that a bachelor of twenty-five is not a better life than a married man of forty-five, and he attributes the difference in favour of married people to the fact that they take more care of themselves, and lead more regular lives than those who have no such tie. In considering occupations as they are likely to affect longevity, those which obviously tend to shorten life need not be considered. With respect to the learned professions, it would appear that among the clergy the average of life is beyond that of any similar class. It is improbable that this average will be maintained for the future; the duties and anxieties imposed upon the clergy of the present generation place them in a very different position from that of their predecessors. Among lawyers there have been several eminent judges who attained a great age, and the rank and file of the profession are also characterized by a decided tendency to longevity. The medical profession supplies but a few instances of extreme old age, and the average duration of life among its members is decidedly low, a fact which can be easily accounted for. Broken rest, hard work, anxieties, exposure to weather and to the risks of infection can not fail to exert an injurious influence upon health. No definite conclusions can be arrived at with regard to the average longevity of literary and scientific men, but it might be supposed that those who are not harassed by anxieties and enjoy fair health would probably reach old age. As a general rule, the duration of life is not shortened by literary pursuits. A man may worry himself to death over his books, or, when tired of them, may seek recreation in pursuits destructive to health; but application to literary work tends to produce cheerfulness, and to prolong rather than shorten the life even of an infirm man. In order to prolong life, and at the same time to enjoy it, occupation of some kind is absolutely necessary; it is a great mistake to suppose that idleness is conducive to longevity. It is at all times better to wear out than to rust out, and the latter process is apt to be speedily accomplished. Every one must have met with individuals who, while fully occupied till sixty or even seventy years of age, remained hale and strong, but aged with marvellous rapidity after relinquishing work, a change in their mental condition becoming especially prominent. There is an obvious lesson to be learnt from such instances but certain qualifications are necessary in order to apply it properly. With regard to mental activity, there is abundant evidence that the more the intellectual faculties are exercised the greater the probability of their lasting. They often become stronger after the vital force has passed its culminating point; and this retention of mental power is the true compensation for the decline in bodily strength.—*Robson Roose, M. D., in the Fortnightly Review.*

FRIENDSHIP BETWEEN CATHOLICS AND PROTESTANTS.

The *Catholic Times* records a little romantic incident in connection with Cardinal Manning. The other day a visitor called at the Cardinal's house and presented a bouquet of roses grown in the garden of the rectory which the Cardinal inhabited many years ago, when he was a minister of the Established Church. With his own hands the Cardinal arranged the roses in a vase, which he then placed on the altar of his private chapel. "Why should not," asks the *Pall Mall Gazette*, *à propos* to this incident, "the Archbishop of Canterbury invite Cardinal Manning to his next Lambeth party? The Bishop of Manchester (Dr. Moorhouse) has broken the ice by inviting his Roman Catholic friend and neighbour, Dr. Vaughan (Bishop of Salford), to a garden party a few days ago. Dr. Vaughan accepted the invitation, fraternized with his Protestant colleague, and nobody has so far raised the cry of 'The Church in Danger.' When Dr. Moorhouse was Bishop of

Melbourne he was on equally excellent terms with Dr. Vaughan's brother, the late Archbishop of Sydney. Both broad-minded Liberal prelates, they sat and smoked together, enjoyed each other's society, and discussed the latest developments of religious thought in the old world. When Archbishop Vaughan died the noblest tribute to his memory was paid by Bishop Moorhouse in the course of an address to his Church of England assembly in Melbourne.

THE SEVENTY-FOURTH ANNIVERSARY OF THE BATTLE OF LUNDY'S LANE.

Fought 25th July, 1815.

UPON this hill where now we gently tread,
Mid grass and stones—memorials of the dead,
Where greenest turf and sweetest flowerets smile,
And whispering leaves to sacred thoughts beguile—
Where gathering free, with none to break our peace,
From meaner thoughts we claim a short surcease.
We pause, and list to awful memories far
When from this height boomed forth the roar of war.
Soft contrast this to that fierce day and night,
When surge of battle hither rolled in might:
When shot and shell ploughed all the trampled ground,
And wounded, dead, and dying dropped around.
Pharsalia, not upon thy dreadful plain
Lay in more frequent heaps the gory slain!
But, O proud contrast! there Ambition fought,
And personal ends the conquering Cæsar sought;
But here, 'twas Patriotism fired the fight,
And Drummond struck to save our dearest right—
Drummond, whose name still lives in proud Quebec,
Shall saved Niagara's foot be on thy neck?
Can Lundy's Lane untrue to Drummond live,
Or grudge thy memory all she had to give?
Thy right, O Canada, thy Drummond sought,
And from high justice all his valour caught.
He traversed not another's right To Be,
But sternly guarded thy sweet liberty.
What asks the patriot more? He knows but this—
His country and her welfare very his.
Her honour his, her greatness all his care;
Quick to defend, her woes his willing share;
Her name his pride, her future but his own;
Each word and deed, seed for her harvest sown.
What asks the patriot more? For her to live,
Or gladly for her life his own to give.
Such were thy sons, O Canada, that fought for thee,
Sprung from the boundless West, or utmost sea.
Such are thy sons to-day—the same their sires—
Or French or British quick with loyal fires.
Here on this holy hill their bodies lie
As thick as stars that stud the winter sky.
Here on this hill baptized indeed with fire,
As from an altar may their flames aspire.
O Canada! Thou of the seven-fold bond!
Let evermore such sons in thee be found;
Let evermore thy sons thy guardians be,
High-souled and pure, content if thou be free.
July 21, 1889.

S. A. CURZON.

TO MONTANA, OREGON AND WASHINGTON.

If you are going west bear in mind the following facts: The Northern Pacific Railroad owns and operates 987 miles, or 57 per cent. of the entire railroad mileage of Montana; spans the Territory with its main line from east to west; is the short line to Helena; the only Pullman and dining car line to Butte, and is the only line that reaches Miles City, Billings, Bozeman, Missoula, the Yellowstone National Park, and, in fact, nine-tenths of the cities and points of interest in the Territory.

The Northern Pacific owns and operates 621 miles, or 56 per cent. of the railroad mileage of Washington, its main line extending from the Idaho line via Spokane Falls, Cheney, Sprague, Yakima and Ellensburg, through the centre of the Territory to Tacoma and Seattle, and from Tacoma to Portland. No other trans-continental through rail line reaches any portion of Washington Territory. Ten days' stop over privileges are given on Northern Pacific second-class tickets at Spokane Falls and all points west, thus affording intending settlers an excellent opportunity to see the entire Territory without incurring the expense of paying local fares from point to point.

The Northern Pacific is the shortest route from St. Paul to Tacoma by 207 miles; to Seattle by 177 miles, and to Portland by 324 miles—time correspondingly shorter, varying from one to two days, according to destination. No other line from St. Paul or Minneapolis runs through passenger cars of any kind into Idaho, Oregon or Washington.

In addition to being the only rail line to Spokane Falls, Tacoma and Seattle, the Northern Pacific reaches all the principal points in Northern Minnesota and Dakota, Montana, Idaho, Oregon and Washington. Bear in mind that the Northern Pacific and Shasta line is the famous scenic route to all points in California.

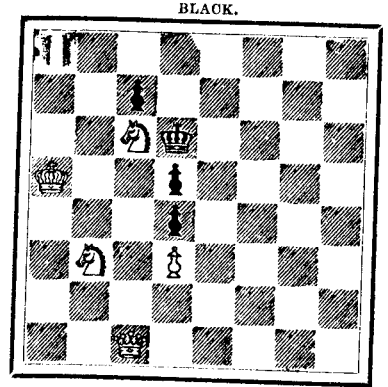
Send for illustrated pamphlets, maps and books giving you valuable information in reference to the country traversed by this great line from St. Paul, Minneapolis, Duluth and Ashland to Portland, Oregon, and Tacoma and Seattle, Washington Territory, and enclose stamps for the new 1889 Rand McNally County Map of Washington Territory, printed in colours.

Address your nearest ticket agent, or Chas. S. Fee, General Passenger and Ticket Agent, St. Paul, Minn.

CHESS.

PROBLEM No. 379.

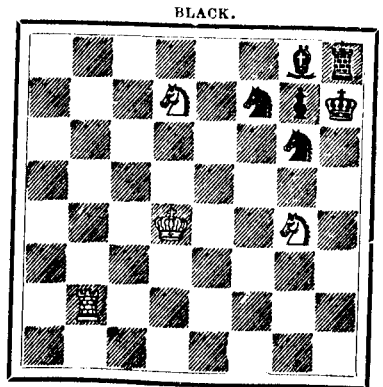
By CONRAD BAYER.



White to play and mate in three moves.

PROBLEM No. 380.

By E. H. E. EDDIS, Orillia.



White to play and mate in three moves.

SOLUTIONS TO PROBLEMS.

- | | | | |
|------------------|------------------------|-----------------|------------------------|
| No. 379. | | No. 374. | |
| White. | Black. | White. | Black. |
| 1. B-Q 4 | 1. P x B | 1. Q-Q R 3 | 1. Kt x P |
| 2. Q-B 5 + | 2. K-K 3 | 2. Q-K B 3 + | 2. K x Q |
| 3. Kt-B 8 mate | | 3. B x P mate | |
| | If 1. Kt-B 6 | | If 2. K x P |
| 2. B-B 5 | 2. K-B 5 | 3. Q x Q P mate | With other variations. |
| 3. Q-K Kt 8 mate | | | |
| | With other variations. | | |

GAME PLAYED IN THE INTERNATIONAL CORRESPONDENCE MATCH BETWEEN MR. E. B. FREELAND, OF TORONTO, AND MR. J. B. REDWINE, OF ATLANTA, GA.

SCOTCH GAMBIT.

MR. FREELAND.	MR. REDWINE.	MR. FREELAND.	MR. REDWINE.
White.	Black.	White.	Black.
1. P-K 4	P-K 4	24. B-Q Kt 1	K R-Q 1
2. Kt-K B 3	Kt-Q B 3	25. R-Q 3 (g)	B-K B 4
3. P-Q 4	P x P	26. Q R-Q 1	B x Kt
4. Kt x P	B-B 4	27. B x B	R-Q Kt 3
5. B-K 3	Q-B 3	28. K-R 1	Q-K B 3
6. P-Q B 3	K Kt-K 2	29. B-Q 5	Kt-Q B 3
7. Q-Q 2	Castles (a)	30. Q R-K 1	P-Q Kt 3
8. Kt-Q Kt 5	B x B	31. B x Kt	Q x B
9. Q x B	P-Q 4	32. R-K 2	Q-K B 3
10. Kt x Q B P	R-Q Kt 1 (b)	33. K R-K 1	K-R 2
11. Kt x Q P	Kt x Kt	34. P-K R 3	R-Q 8
12. P x Kt	B-K B 4 (c)	35. Q-K 3	Q-R 8
13. B-K 2	K R-K 1	36. R x R	Q x R +
14. Q-Q 2	Q-Kt 3	37. K-R 2	Q-Q 3 +
15. Castles	B-K 5	38. P-K B 4	R-Q 2
16. P-K B 3	B x Q P (d)	39. Q-K 4 +	K-Kt 1
17. P-Q B 4	Kt-Q 5	40. Q-K 5 (h)	Q x Q
18. B-Q 3	Q-Q Kt 3	41. R x Q (k)	P-K B 3
19. Q-K B 2	B-K 3	42. R-Q 5	R x R (m)
20. Kt-Q B 3	Q R-Q 1	43. P x R	K-B 2
21. Q R-Q 1	P-K R 3 (e)		
22. P-Q Kt 3	Q-Q R 4		
23. Kt-K 4	R-Q 2		

And after a few more moves Black resigned.

NOTES.

- (a) P-Q R 3 is better.
 (b) If P-Q 5, 11 $\frac{P \times P}{Kt \times P}$ the position would be very interesting and would repay analysis.
 (c) Bardeleben gives Kt-Kt 5 as a winning move for Black, thus, $\frac{P \times Kt}{Q \times Q Kt P}$, 14 $\frac{Q-Q Kt 3}{R-K 1 +}$, 15 $\frac{K-Q 1}{Q \times K B P}$, but we believe this attack to be unsound.
 (d) This recapture is very pretty, and White could not prevent it.
 (e) This move seems unnecessary.
 (f) Clearly a waste of time.
 (g) P-Q Kt 4 would be strong here, but we prefer the move in the text, as it practically forces the exchange of Queens; any move to avoid it leading Black into difficulties.
 (h) Giving White, we believe, a winning position.
 (m) A serious blunder made under the impression that the White King was on his K R square, but the game was lost in any case.

The following from the *Columbia Chess Chronicle* is very much to the point: "The score in the International Match—United States against Canada—now stands each side eleven games won. It is a pity that so much unpleasantness has occurred. Our opinion is that Messrs. Henderson and Narraway were bound to enforce their penalties, and that Gossip and Loyd were bound to accept it gracefully. Mr. Gossip did not know how to do this. Mr. Loyd's letter to Mr. Narraway is all right. Mr. Petersen evidently erred when he stated Loyd sent a mate in fifty moves, as that is not said in the letter which he received from Mr. Loyd on the subject. The *Newark Sunday Call* says it is impossible to believe both Loyd and Narraway. We cannot see where the impossibility comes in. The honourable Chess players of America have been shown no reason why the Chess society of Messrs. Henderson and Narraway should be tabooed. Perhaps the *Sunday American* Chess players on these subjects."