

THE ORIGINAL WELLAND CANAL.

From inception to completion the Erie Canal was watched by the Upper-Canadians. They became intensely interested in the discussion whether the route should be northward from the Rome level, through Oneida Lake to Lake Ontario (access to Lake Erie to be had by an American canal around Niagara Falls), or whether—as it finally proved—the waterway should cross the entire length of the State. The most interested of the Canadians was William Hamilton Merritt, a youth but little past his majority, whose ancestors were New-Yorkers of note in the French and Indian wars. With other British sympathizers, they removed to the Niagara Peninsula, and located upon "Twelve-mile Creek"—the present city of St. Catharines—in 1796. In the course of his trading along the banks of the Niagara it had occurred to young Merritt that a canal was practicable, and in 1818 he surveyed from Allanburgh to Chippewa with a water-level. In response to his statement, the Canadian Legislature voted £2000 for surveys, and a route was laid out from Chippewa to Burlington Bay (Hamilton), via Grand River. The impracticability of this route, and the certainty of the Erie Canal, made the construction of a Canadian canal a necessity. The avoidance of Niagara Falls by the Americans was the Canadians' opportunity. In 1821, their Legislature appointed a board of commissioners to report upon the most feasible route. A year later (1823), the commission recommended a canal large enough to accommodate any vessel then navigating the lakes—advice that led to the incorporation of the "Welland Canal Company" during the following year. Merritt and his associates subscribed £40,000, and the first sod was turned on the 30th of November.

The original project was to connect the two great lakes, Erie and Ontario, by a mere boat-canal for vessels of 100 tons. The route was up the valley of the Twelve-mile Creek to the foot of the Niagara escarpment; thence by a railway to the Beaver Dam Creek, from which point access to the Chippewa was had by a second boat-canal tunnelled through the "divide" on the site of the present Deep Cut. The importance of a larger canal becoming more evident, the capital stock was increased five-fold, and the stockholders were guaranteed a paid-up annual dividend of twelve and a half per cent, in case the crown should ever assume the canal. The board of directors reported every prospect for encouragement. Bishop Strachan left off his opposition to Lord Selkirk's Red River settlements, and remarked with enthusiasm that "the Welland Canal will in time yield only in importance to the canal which may hereafter unite the Pacific with the Atlantic." That wonderful colonizer of Upper Canada, John Galt, pledged the influence of his Canadian Company in behalf of the new canal, while the Legislatures of both Upper and Lower Canada ceased the work with temporary loans.

It was finally resolved to build a ship-canal, sixteen miles in length, to connect the mouth of Twelve-mile creek with the Welland River, a tow-path along the banks of which would give a continuous passage from Lake Ontario to the Niagara River. Thirty-five locks were built to overcome the total rise of 323 feet; and a branch canal to the mouth of the Grand River was proposed in order to avoid the ice blockade at the mouth of the Niagara. But so frequent were the landslides in the Deep Cut (Port Robinson) that the Welland River could no longer be used as the summit. By the advice of James Geddes, one of New York's most experienced engineers, the waters of the Grand River were brought from Rapit Rapids (Caledonia) to the Deep Cut, which henceforth remained the summit, while the water of this upper level crossed the Welland by means of an expensive aqueduct. On the 30th of November, 1829—exactly five years after the enterprise was commenced—the schooners *Ann and Jane*, of Toronto, and *R. H. Bough*, of Youngstown, New York, passed from Lake Ontario to Lake Erie.

Disappointed in their plan of using the Grand River to avoid the Niagara, with its swift currents in the summer and its ice blockade in the spring, the Canadians cast about for still further improvements. A direct cut of seven miles to Lake Erie was made, and the canal was completed on its present line on the 20th of May, 1823, the summit still being fed by the Grand River. There were forty wooden locks, 110 feet long by 22 wide, except the three lower ones, which were 130 by 32, and the one at Port Colborne, which was 125 by 24. The width in the Deep Cut was twenty-four feet, the general width being twenty-six feet. The depth was eight feet—sufficient for the passage of tonnage boats. The length of the main ship-canal was twenty-eight miles; but if the old towing-paths along the Welland and Niagara, and the boat-canal, which served as the Grand River-feeder, were considered, there were nearly eighty miles more of navigation. Three harbors were also erected—Port Maitland, at the mouth of the Grand River; Port Colborne, at the Lake Erie entrance, twenty miles above the head of the Niagara; and Port Dalhousie, at the Lake Ontario entrance, eleven miles to the west of the Niagara's mouth.

The honor of overcoming obstacles interposed by nature is greater than that of a victory over our fellow-men. Louis XIV is remembered far more enduringly through his Languedoc canal than he is by his conquests. The Duke of Bridgewater's fame would not have survived the edict of a century had he not broken the hide-bound prejudice of his day, and built the first

canal in Great Britain, although the idea was not a new one on the Continent. Lord Dalhousie's administration of Indian affairs gained him renown not more for his magnificent highways than for his Barce Doab and other canals throughout the Punjab. The State of New York will ever hold De Witt Clinton prince among her Governors for his resolute zeal in the matter of the Erie Canal; while the Hon. W. H. Merritt belongs the credit of making a pathway to the ocean in spite of the Falls of Niagara.

Notwithstanding the fact that the Canadians were now able to float the tonnage of the upper lakes upon Lake Ontario, they were still 245 15-100 feet above their objective point—the seaport of Montreal. The Lachine Canal was first built around the rapids of that name just above the city. The new channel of trade was opened in 1825, the depth being four and a half feet, and the breadth twenty-eight on the bottom. The Welland, as enlarged in 1833, led to the contemplation of a uniform system of canals large enough for the steamers of the upper lakes. While the subject was under discussion, four short canals were built to overcome the Cascades and Cedar and Coteau rapids in the channel of the St. Lawrence, between Lakes St. Louis and St. Francis. In 1845, the Beauharnois Canal replaced the four, the Cornwall Canal having recently been constructed upon the enlarged scale, to surmount the rapids of the Longue Sault. The Farran's Point, Rapid Plat, and Galops—known collectively as the Williamsburg Canals—were opened in 1847, thus completing the chain of navigation from Lake Erie to Montreal.—FREDERICK G. MATHER, in *Harper's*.

OUR CHESS COLUMN.

TO CORRESPONDENTS.

J. W. S., Montreal.—Papers to hand. Thanks.
Student, Montreal.—Correct solution received of Problem No. 325.

We have had a hasty glance at the Book of the Fifth American Chess Congress, which has recently been published, and had it full of matter very interesting to the chess-player. The work seems carefully got up, and the frontispiece is a well-executed engraving containing the portraits of the principal contestants in the Grand Tourney, among whom we perceive our visitor of two years ago, Captain Mackenzie. The book appears to be a history of chess in the United States during the last few years, and in this way relates the circumstances which gave rise to each of the five great Chess Congresses, their congressional proceedings, committees, contestants, programmes, &c.

The biographical sketches connected with the first Congress are particularly worthy of notice, from the fact that such players as Paul Morphy, Louis Paulsen, and Stanley are well known and appreciated wherever there are votaries of the royal game.

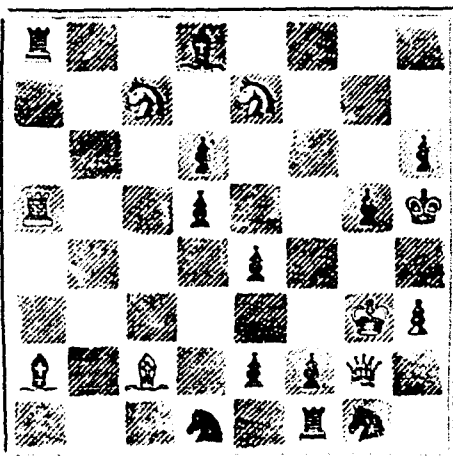
The Fifth Congress, we are told, was brought about by the interest excited by the four preceding gatherings, and from it the idea took its rise which led to the publishing of the present volume.

The account of the last Congress gives us all the games in the Grand Tourney, selections from the games in the Minor Tourney, the proceedings of the preliminary meetings, articles of the constitution of the American Chess Congress, code of chess laws and other important matter. The scores of the games in the Grand Tourney, 62 in number, are well annotated, and there are 126 well printed problems of the Problem Tourney. The whole work contains 330 pages. It is calculated to be an excellent addition to a chess-player's library.

The British Chess Problem Association has been inactive of late. The cause of this appears to be the many problem-tourneys that have been going on everywhere. We understand, however, that there is a probability of the Association starting an autumnal competition. A proposition has been broached that there should be separate prizes for two-movers, three-movers, and four-movers, but no set prizes. This idea, it is needless for us to say, meets with our fullest approval.—*Land and Water*.

PROBLEM No. 332.

By J. P. L.
BLACK.



WHITE.

White to play and mate in three moves.

GAME 465TH.

The two following blindfold and simultaneous games were played in England a short time ago:
Played at Manchester between Messrs. Blackburne and Mitchell.

White.—(Mr. Blackburne.) Black.—(Mr. Mitchell.)
(Evans' Gambit.)

- | | |
|---------------------------------|-----------------|
| 1. P to K4 | 1. P to R4 |
| 2. Kt to K R3 | 2. Kt to Q B3 |
| 3. B to Q B4 | 3. B to Q B4 |
| 4. P to Q Kt4 | 4. B takes P |
| 5. P to Q B3 | 5. B to R4 |
| 6. P to Q4 | 6. P takes P |
| 7. Castles | 7. B to Kt3 |
| 8. P takes P | 8. P to Q3 |
| 9. P to Q5 | 9. Kt to K4 |
| Kt to R4 is very much superior. | |
| 10. Kt takes Kt | 10. P takes Kt |
| 11. B to R3 | 11. B to Q5 |
| 12. Kt to Q2 | 12. B takes R |
| 13. Q takes B | 13. P to K B3 |
| 14. P to K B4 | 14. P takes P |
| 15. P to K5 | 15. P to Q B3 |
| 16. Kt to K4 | 16. P takes Q P |

- | | |
|------------------|-----------------|
| 17. Kt to Q6 ch | 17. K to Q2 |
| 18. B to Kt5 ch | 18. K to K3 |
| 19. P takes P | 19. Kt takes P |
| 20. R to K sq ch | 20. Kt to K5 |
| 21. Q takes P | 21. Q to Kt5 ch |
| 22. K to R sq | 22. Q to R4 |
- And White announced mate in six moves.

GAME 466TH.

Played at Chesham between Messrs. Blackburne and Cotton.

(Danish Gambit.)

- | | |
|--------------------------|----------------------|
| White.—(Mr. Blackburne.) | Black.—(Mr. Cotton.) |
| 1. P to K4 | 1. P to K4 |
| 2. P to Q4 | 2. P takes P |
| 3. P to Q B3 | 3. P takes P |
| 4. K B to Q B4 | 4. P takes P |
| 5. Q B takes P | 5. K B to Q Kt5 ch |
| 6. Kt to Q B3 | 6. P to Q B3 |
| 7. Kt to K B3 | 7. Kt to K R3 |
| 8. Castles | 8. K B to K2 |
| 9. Q Kt to K2 | 9. P to K B3 |
| 10. Kt to K B4 | 10. Kt to K B2 |
| 11. R to K sq | 11. Castles |
| 12. Kt to Q4 | 12. K to R sq |
| 13. Q to K R5 | 13. Kt to K4 |
| 14. R to K3 | 14. Kt takes B |
| 15. R to K R3 | 15. P to K R3 |
| 16. Kt to K B5 | 16. Q to K sq |
| 17. Kt to Kt6 ch | 17. K to R2 |
| 18. Kt from B5 takes B | 18. Kt takes B |
| 19. Q to B5 | 19. P to Q4 |
| 20. Kt takes R d ch | 20. K to R sq |
| 21. Q to R7 mate | |

SOLUTIONS.

Solution of Problem No. 336.

- | | |
|--------------|---------------|
| 1. Et to Q7 | 1. Kt takes P |
| 2. Q to Q R2 | 2. Anything. |
| 3. Kt mates. | |

Solution of Problem for Young Players No. 334.

WHITE. BLACK.

- | | |
|---------------|---------|
| 1. P to K Kt3 | 1. Any. |
| 2. Mate acc. | |

PROBLEM FOR YOUNG PLAYERS, No. 335.

White. Black.

- | | |
|--------------------|--------------|
| Kt to Q2 | Kt to Q3 |
| B to Q8 | Pawns at |
| Kt to K B4 | K B and Q B3 |
| Kt to Q3 | |
| Pawns at K4, K B5, | |
| Q Kt3 and K4 | |

White to play and mate in three moves.

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City Treasurer.

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