PUZZLES

EMPTYING THE MAIL BAG

YES, thank you, we had a very nice holiday. Now we are settling down to work again. The mail bag comes first:

R.T.C. (Nelson): You are quite right about the "bottom right-hand corner," but we cannot see just what you mean by "beginning at 1 and ending at 18."

P.J.Q. (Motueka): No letters came about the cipher. Thank you for the letters here to welcome us back.

E.A.C. (Wellington): We have had a lot of material about figure squares, most of it published. If you would like to look back over our files for it, you would be welcome in the office.

Lillian (Hawera): Nice to return and find you on the file again.

J.C.L. (Auckland): Your earlier shunting problem was remembered. It kept itself alive in arguments, and revived itself outside our volition. See below.

G. Tisbury (Invercargill): We are not sorry you forced us to revive the shunting problem, but we must admit satisfaction that the trucks are now correctly and finally shunted. Thank you, however, for the other comments. The Mrs. Brown problem is a favourite type.

S.T. (Hawera): Sent this palindrome: "I saw rats live on: No evil star was I."

DRAUGHTS

Place 8 draughtsmen in a row, alternating black and white. Rearrange them on your board, moving a black and a white together, so that the four blacks are together and also the four whites. No spaces are to be left blank.—(Problem from L.W., Christchurch).

C.B. (Orangapai): If you send the answers—and you should, in token of good faith—we promise not to look until we've tried hard.

R.G. (Waihi): The PP went on holiday secure in the thought that R.G. would not let The Page down. And R.G. hasn't

L.W.R. (Nelson): The Assistant overlooked that problem, and the PP himself made the same omission until he saw your reminder.

F.D.B. (Riccarton): Your problem has created as much interest as anything which has appeared on The Page. We sort everything out elsewhere.

X.G.T: Puzzles in question covered elsewhere. Can't make out where you live, except that it begins with K.

X.X.X. (Christchurch): Listen to the commentary.

H.G.L.: When the PP saw your letter waiting for him, it was finally impressed upon him that he really had been away on holiday and that grim reality faced him on his return. Your reply to S.G.E. has been forwarded to him. We shall content ourselves with acknowledging that you have satisfied S.G.E.'s requirement that you contemplated his theorem for six hours, and with reporting that from this Yogi-like trance you emerged with a conviction that it was false. We can't quite see why anyone should really want to know the answer to your problem, but here it is, for S.G.E. to play with, and any others that feel inclined: "If you have a series of consecutive numbers, starting with 1 and ending with n, derive a simple formula for the sum of their cubes."

M.E. (Christchurch): You should sign your name, and if you do not want it published, make that clear by enclosing it in a circle.

R.C.J.M. (Invercargill): Your budget was very welcome, and will be very useful.

Russell Girling (Te Aroha): Another new name, and welcome.

Puzzled (Waihi Beach): Some information for you will be published later.

PROBLEMS

The Challenge from Christchurch

It is now a little more than a month since we published F.D.B.'s "Challenge from Christchurch." Letters about it are still coming in. It was printed on August 2, when we said that pieces No. 1 and No. 4 had to be exchanged. Then, on August 23, after we had said on August 16 that there was insufficient space for his answer, F.D.B. wrote to say that we had misinterpreted his wording, to make it seem that pieces No. 1 and No. 4 had to be interchanged, whereas he had only intended that No. 1 should be moved to the place first taken by No. 4. This second requirement F.D.B. fulfilled in 71 moves, and did not know at the time that the first conditions could be fulfilled also, although in more moves. During the intervening periods many letters about this puzzle have arrived. Here is a summary of them:

R.T.C. gives a sequence of 71 moves. Lillian managed to put No. 1 where No. 4 was in 64 moves and gives an alternative problem which will be used when space permits. A.H.M. solved the original problem in 73 moves. H. L. Tempest interchanged them in 112 moves. He shifted No. 1 only to the required position in 61 moves. R.T.C. gives a 71 move solution for the No. 1 shift and a 43 move answer to show how good he is. This correspondent, and most of the others, have cut down the number of moves by shifting more than one piece at a time, by means of some dexterous finger-jiggery. R.C.J.M. managed to interchange the two pieces satisfactorily. John Pickles (Lower Hutt) says he did F.D.B.'s problem as printed in 121 moves, and as corrected in 66 moves. The solution of the corrected problem, he says, is "quite simple." J.M.L. solved it both ways.

Some correspondents protest most emphatically that we must publish the answer. But there are so many different answers, and it is so easily possible for puzzlers to see for themselves whether they are correct or not, that we don't feel generous enough to give the space required for a detailed exposition, especially since it was a first task to acknowledge all the letters. However, here is a bald summary of a 71-move answer to the No. 1 shift. It is given by R.T.C.: 9,4,2, (or 3), 3 (or 2), 1,5,6,7,7,1,2, 3,4, (or 9), 9,8,7,1,2,3,4, (or 9), 9, 8,8,4,9,2, (or 3), 3,5,6,1,7, (or 8), 8,4,9,2, (or 3), 3,8,7,1,6,5,7, (or 8), 8,2, (or 3), 3,9,4,1,7,8,5,6,8,8,5, (or 6), 6,3,2,1,7, 8,5, (or 6), 6,3,2,1,7,7,4,9,1.

ANSWERS

CLOCKS (See issue of July 26): When the clock is striking 8 there are seven pauses of 1 1/7th seconds. The time taken to strike midnight therefore, will be 11 times 1 1/7th, which B.M.A., who set the problem, says is 12 4/7ths.

KINDERGARTEN FINANCE (August 23): Kitty seven and Harry five.—(Problem and answer from R.G.).

ONE FOR THE TINY TOTS (August 23): A brick on the head of the Ass.-PP for using one we've had before. Yes, one extra horse makes the division possible.

CONDENSED CROSSWORD (August 23):

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X R A Y
M O L E
A T O L
S E E P
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TIME FOR THE GUARD (August 9): Widely varying answers have arrived for this query from Puzzled (Waihi Beach). R. Martin (Glen Afton), as reported on August 23, said the length of the train was 22 1.3 chains. Since then many others have written: Russell Girling says 400 feet. P.J.Q. says 340 feet. M.E. says the speed of the train was the same as stated by R. Martin, that is: 51 47/73 m.p.h.; but his train is 455 5/73 feet long. W.
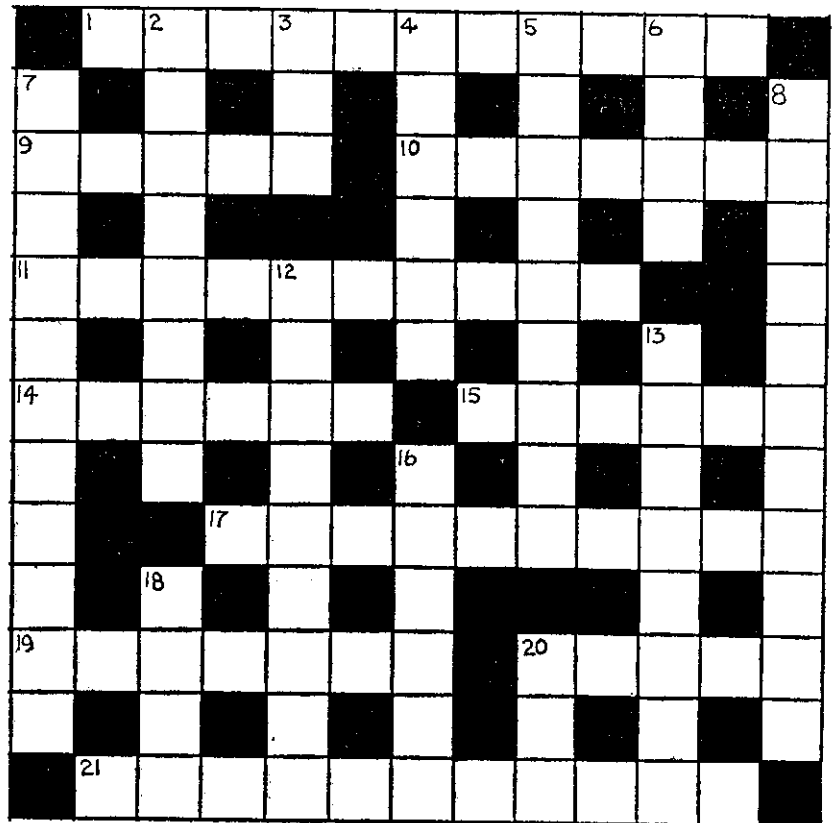

Robinson votes for 440 feet. X.G.T. says the train as travelling at 10 21/50 m.p.h., and was 1,356 2/3 feet long.

And there you are. The length of 440 feet is one vote ahead for first place.

The Listener Crossword (No. 23)

Clues Across

1. A legendary form of air-transport made by a prig at Mecca.

9. The art of dyeing fabrics by applying a design in wax to keep the dye from that part of the material.

10. Set Don and Phil to catch a fish.

11. Make plain by upsetting Aunt Millie.

14. Find me involved with a pier.

15. A check— or may be a pair of braces?

17. Bill's act is the science of projectiles.

19. Die? Not I! (anag.)

20. Con is a descendant.

21. Walkers in steep drains.

Clues Down

2. One petal makes a ruminant quadruped.

3. A short form of 5 down provides something to be seen on this page.

4. Can Ted be falling?

5. No realist (anag.)

6. She pined away for love of Narcissus until nothing was left but her voice.

7. Test a boiler (anag.)

8. Interrupting "Sing no tripe!"

12. Ersatz butter.

13. A branch of Arithmetic—and I do it.

16. If he is removed from an elephant this celestial body could be fashioned from the remainder.

18. A mixed diet that waits for no man.

20. The beginning of a skid on a snow slope.