(Answer to No. 6)

ON HOW TO PLAY WITH MATCHES

was a telephoned request for from R.W.C.). more puzzles about matches. "With those others," said the voice, "you have to think too hard. Now with matches you can just sit down and play; like with the one about the Cannibals."

As we have nothing suitable immediately available, we can only suggest that puzzlers may like to send something for the satisfaction of this lost soul. He was last heard of trying to place six matches so that each match touches every other match.

Perhaps he would like to try the famous old game of Piling the Matches. You take a handful of wooden matches and drop them in a disorderly heap. The non-inflammable end of another match is sliced to provide a point or a fine, flat surface, as required; and this is used to try and pick all the matches out of the pile, one at a time, without moving any of the other matches. If any match is moved before the pile is completely reduced, you must start again with a fresh pile, no matter how slight the movement.

The game can be made into a competition, and forfeits make it more interesting.

For puzzlers who prefer a more athletic sort of mental recreation, we have this week a fair selection of problems, covering everything from pups and pigs to our old enemies ABC, and their allies

PROBLEMS

Boffin

Mr. Boffin enjoys helping his son Clarence with his homework, but he had a setback one evening. "See," said Clarence, "I've been given a length to multiply by 2, and was told to check it by dividing by 2, and it comes quite different!"

Clarence's sum was set out thus: 1 mile 7fur. 39 poles 5yds. 1ft. 9ins.

2)	4	0	0	0	0	6	
	2	0	0	0	0	3	

Mr. Boffin went through the working several times, but could find no mistake. Can you help him?

-(Problem from R.G.)

Paddy the Pup

Two friends set out at the same time to meet each other, from two points 12 miles apart. Sunley walks at 31/2 m.p.h., while Sadly, who suffers from high blood pressure, takes it easily at 21/2 m.p.h. Sunley has a dog which, finding his master's pace too slow, runs ahead at 10 m.p.h. to meet Sadly. When he reaches Sadly, he at once turns round and runs back to Sunley. When he reaches Sunley he turns round and runs back to Sadly, and so on until Sadly and Sunley meet. The speeds of all three are constant, and the dog is assumed to take no time to turn round, gain or lose?—(Problem from R.G.).

OST plaintive appeal to reach Now, if the dog's name is Paddy, how ANSWERS the Puzzle Editor this week far does he travel altogether?—(Problem

The Pig in the Poke

An Irishman wanted to send an Easter gift to his friend the priest. So he put some pigs in a crate, carefully marking the number on the label. A dishonest porter helped himself from the crate and added a mark to the label making the total tally. The carrier who took delivery of the animals also helped himself and again added something to the label to make the total tally with the contents of the crate. How many pigs were sent? How many did each of the men take? How did each make the numbers tally? Nothing was altered or erased.

Sleepless Nights

As a postscript to a letter to "The Listener's" circulation department, a subscriber, M.C.H., of Auckland, gave this as a suggested cure for insomnia. The circulation department hands it on with hest wishes to worried puzzlers:

Roll the eyes 20 times to the right, then 20 times to the left. Then 20 times to the right again, then 20 more times to the left. Then blink 20 times.

We might add that Bill (out stamp-licker) immediately put the proposal to the test. We are not yet sure if the result proves the theory or simply justifies a sus-picion that Bill never had insomnia.

Appleton to Duckborough

Strung along a main highway at varying distances are four small towns named Appleton, Butterville, Corncentre, and Duckborough. In the centre of each is a monument, and the distances between towns are measured very carefully from one monument to another. It was found that the distance from Corncentre to Duckborough equalled the distance from Appleton to Butterville, plus half the distance between Butterville and Corncentre. The distance from Butterville to Cornceptre was equal to the distance hetween Duckborough and Corncentre plus the distance between Butterville and Appleton. The distance from Appleton to Butterville was 17 miles, 7 furlongs, 9 chains, 3 rods, 5 yards, 1 foot, 6 inches. What was the distance from Appleton to Duckborough?

---(Original problem from P.J.O.),

Over the Counter

A retailer buys a number of counters at 49 for 2d. He sells them-half at 24 for 1d, and half at 25 for 1d. Does he

(See issue of May 3)

To and Fro: Every one agrees it was 7 p.m.

Ohm!: Five-sixths, or .8333 repeater.

Ten units: Divide the long side of the rectangle (five units) into two sections of three and two units, and divide the three-unit section into four with one line bisecting it along the horizontal longitude, and two lines dividing the bisected halves diagonally. This gives four triangles from the three-unit section and a square remains in the shape of the twounit section. The right angles of each of the four triangles can now be fitted against each corner of the square, fulfilling the conditions of the problem.

Double Acrostic:

RibbentroP Initia L V ictori A E xtan T R evers E

Trick: Foreign coins were concerned. CORRESPONDENCE Consider the almighty dollar, how wondrous are its ways.

The Odd, Odd Square: G. Tisbury says that when the pieces are fitted to form a square they match exactly, but when they are put into an oblong there is a minute inexactitude in the fitting. This accounts for the extra square. This correspondent also sends an answer to Trick. Sorry, it is wrong. With that combination he could change the 10/- note. (7/6d in half-crowns, 6/- in florins, and one 6d).

H.G.L. agrees with this theory, and proves it mathematically by working out the areas of the triangles and parallelogram. Tane comes to the same conclu-

A Matter of Marriages: Since Albert's sister was a year older than Phyllis, his sister was Vera or Bessie. But Albert was a draper, while Vera's brother was a doctor So Albert's sister was Bessie Albert married a brunette, hence it must have been Phyllis. The doctor was Charles or William, but the doctor examined Charles, so the doctor was William; that is, Vera's brother. So he must have married Bessie. Therefore Charles married Vera. (Puzzle and answer from

Wine, Water, Etc. (In issue of April 12): To elaborate the brief note on a catch in this problem in our last issue, we quote G. Tisbury's comment in full: "The obvious reply is 8/4. This would be correct but for the fact that equal volumes of water and alcohol, when mixed, occupy less space than when separate. The explanation is: the molecules of the two liquids accommodate themselves to each other, and thus diminish the volume of the mixture. Fifty pints of water added to 50 pints of alcohol result in a mixture of only 94 pints. Therefore, the correct answer to the problem is 3/11."



Readers will no doubt find this a bit of a blow, after all their trouble in working out the ratios. But let them take heart. We can revenge them: Mr. Tisbury has failed to acknowledge the fact that wine is not alcohol, but ordinarily contains only a small proportion of alcohol. If it were all alcohol, we hate to think what might happen sometimes.

L.S.D.: Married them off very neatly. Johnno (Auckland): Earned his pint. L.C.T.: Crosswords get the vote. Many thanks for your interest.

L. Hayston (New Brighton): Still in doubt about knowledge tests. The voting is even. Thanks for your help.

G. Tisbury (Invercargill): Says the Ohms and the marriages had him mixed between currents and cakes.

L.H.M. (Hastings): Correctly answered several.

P.J.Q. (Motueka): As usual, this staunch puzzler tries them all. He has another answer to Pond. One plank he puts into the water with one end resting on the edge, and the other on the bottom. From this he stretches the other to the island.

J. Ensor (Hastings): Thanks, but you are wrong about London. Evacuation has reduced its population below that of rival capitals. It may now be recovering.

F.D.B. (Riccarton): Crossword correct. Hope to send that working shortly.

Tane: Suggests working out the donkey problems by cutting cardboard to scale and weighing the sections to establish ratios by

weight.

H. G. Lambert (Taupo): Admits that he made an error in his solution of the second part of his own space ship problem. He now agrees with Tane that the answer should be 11.9136 miles. He asks if J. B. Hogg was serious in proposing his variant of the donkey grazing problem. Since several correspondents have sent answers, we can only assume in our ignorance of Mr. Hogg's sense of humour that he was serious and, further, that it is a very serious matter that Mr. Lambert should think for a moment he was not. However, a prompt reply to S.G.E.'s request about prime numbers (April 26), may redeem this fall from grace. H.G. says: "Obviously, every number is not prime, so whenever an odd number is not prime, so whenever an odd number is not prime it forms, together with two even numbers, consecutively proceeding and following, a series of three not-prime numbers. So the rule is—Multiply any two odd numbers; the product is the second number of the three consecutive not-prime numbers. Every product gives a different series." S.G.E. shall be left to judge if that is satisfactory. All correspondents who tried to work out the ferry boat problem please collapse and roll on the floor, H.G.L. says no answer is possible, because of an error in his statement of the conditions, By his calculus working on those conditions, the boat could not take longer than 0.3145926536 hours to cross. He repeats his claim that the answer to The Fly Again is 3.6 inches, and challenges other correspondents who answered five inches. We are asked to adjudicate, and H. G. Lambert (Taupo): Admits that he challenges other correspondents who answered five inches. We are asked to adjudicate, and can only point out that the fly started on the OUTside to get to the honey on the INside.