PUZZLES

BACK TO THE SIMPLE LIFE

LIFE has lately been a complicated affair of strange and unprintable symbols (and sounds). This week we return to recuperate in the simple life. The puzzles on The Page to-day are meant for the fireside, with a few scraps of paper in the lap, and mother darning the socks with a pair of scissors handy.

There is something for the mathematicians to argue about, but such matters have been tucked away in the correspondence section. Puzzlers who remain faithful

---

PROVERB

The letters in this address when re-arranged make the words of a well-known proverb:

Rev. D. E. White,

Peach Street,

Bolton.

---

to A and B, in their nefarious adventures, can have them. This week, we are more interested in the queer case of the bear who chased the hunter, or did not chase him; in cutting up squares, and making squares; in matching matches; and making words from funny little rhymes.

PROBLEMS

Match the Matches

Place six matches so that each match touches every other match. (*From R.W.C.*)

Work for Scissors

(a): Divide a square into seven pieces so that they can be put together again to form three squares of uniform size. (*R.W.R.*)

(b): Divide a Greek Cross by two straight and direct cuts so that the pieces when put together will form a square. (*R.W.R.*)

Funny Sum

Prove that 64 is equal to 65 by any method. (*R.W.R.*)

How?

How often can the numbers 1 to 16 be differently arranged in a magic square? (*R.W.R.*)

The Bear

A hunter one day met a bear. He wasn't as brave as he should have been, so he dropped his rifle and ran one-quarter of a mile due south. Then he

thought he heard the bear growl so he turned and ran one-quarter mile due west. He stopped to see where the bear was and saw it sitting due north from him, beside his pack. What colour was the bear? (*Problem from W.I.H.*)

Double Acrostic

On him are based our greatest hopes,
Brave, calm, sincere, he knows the ropes.
No tin God of London Town
Wood he is from toe to Crown.
Lamb chose this other name
When essays brought him fame
By this name a ruler is known
If Southern India is flown.
Three words are the motto of France
Equally fits one here by chance.
An Italian painter whose name we'll hide
By saying he lived when Columbus died.
This killed the princeling out on the veldt,
Bitter the grief Eugenie felt.
Sleight of hand gives some men fame,
Sometimes known by another name.

(*Constructed by L.C.T.*)

ANSWERS

(*Refer to issue of April 26*)

The Cannibals: Black and white over, white back. Two blacks over, one black back. Two whites over, one white and one black back. Two whites over, and no supper for the cannibals. (*Puzzle from the Drama Department.*)

Confused Words:

A saturnine colonel who fought
In command of colonials he brought.
Often thought of his weight
So his waistband to bate
And to tend to get leaner he sought.

(*Puzzle and answer from E.H.C.*)

Double Acrostic:

S u B
AeloU
MeaT
UsefuL
E r E
LemuR

(*Puzzle and answer from L.C.T.*)

Pond: One plank goes across one corner of the edge of the pond. From that one, the other easily reaches to the island. (*Puzzle from E.W.M.*)

Cone: None of the Upper Ten have sent in any answers at the time this has to be sent to the printers. We shall sit

tight until they do. (*Stop Press*: S.N.S. says 226.73 cu. ins.)

Maths, etc.: 49.31 yards. (*Puzzle from J. B. Hogg, who was good enough to send the answer, achieved by the Calculus.*)

CORRESPONDENCE

R.D.J. (Ranfurly): Mr. Lambert writes to tell us for your benefit that when a train hits a trolley, if they are considered as deformable bodies, as they are in reality, the front ends in contact may stand still momentarily because of the compression, but the bulk of the train continues to move forward. As for the speed of a bullet from a train, H.G.L. says that ordinarily the speed of a bullet is measured relative to the rifle, which is unaffected by the train. However, if the speed is measured relative to the earth when the bullet is fired from the train, Mr. Lambert suggests that the speed of the train must be added to the bullet's velocity if it is fired straight ahead. If fired backward, then the speed of the bullet is muzzle velocity minus train speed.

J. Lewis (Westport): O! You spoil all our dreams of Utopia. If we can't get there by maths., how can we get there?
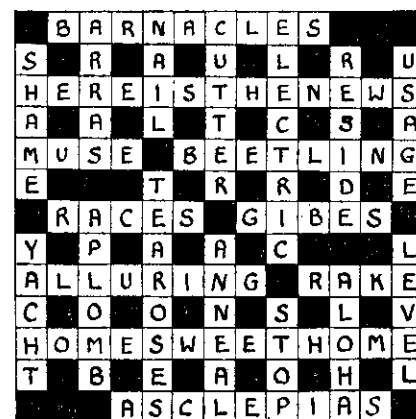
Ned Kelly (Tolaga): In Ethics two wrongs don't make a right. In Grammar, two negatives are extremely bad form. So why spoil our little sum by saying that two noughts make one? You are one of a large number of correspondents who insist that anything does not equal nothing. As you seem to be the youngest, and therefore most likely to be easily converted, we should like to point out that you have no foundation for maintaining that anything equals anything. That poor, innocent chump Euclid, thought that the whole was greater than the part; and people have been saying the same sort of thing ever since, from habit. If you just adapt your mode of thinking slightly, you will agree with Sir Arthur Eddington that the bung-hole of a barrel is a part of the barrel, and by this process of reasoning it is ridiculously easy to see that A can be part of B, since B can be divided into two parts, A and B minus A. So you see there is more in this life than algebraic equations.

Macskooshook (Ohura): Writes to say that he has conferred with his friend Hamish McSporran, and finds that the now famous calendar was not, after all, for the year 1912. Mr. McSporran insists that the Calendar, which bears an extremely lifelike representation of King Robert the Bruce and the Spider, had really been acquired by his father, the late Mr. Hamish More McSporran, in its previous cycle during the last century. Unfortunately, the untimely bursting of the family haggis, or some misdirected shot with a mealy pudding by Mrs. McSporran, completely obliterated both the spider and the year. "Mr. McSporran and myself," says Macskooshook, "have ourselves endeavoured to work out the problem of the year of issue, but with such completely divergent results we can only hope for your very generous assistance. That is, of course, if you can do it." And Mac most vulgarly ends his letter: "Now then, smarty . . ." Rally, readers!

G. Tisbury (Invercargill): Resurrects the gunnery problem to point out that the answer made no allowance for preparation of the gun before the first shot, and the examining ex-

perts would. We can suggest only that perhaps the experts did not like the shape of the trigger, and adopted this mean subterfuge to avoid further responsibility.

E.H.C. (Tokaanu): Reiterates his answer to the problem of The Fly Again—five inches. G. Tisbury says he would not work it out, because he wanted to allow for the thickness of the vessel, but this was not given.

S.N.S. (Coromandel): Yes, afraid we overlooked that note in your letter, so hereby acknowledge that you worked out the first donkey problem by proving your way through eight hypothetical dimensions. Using mental arithmetic, S.N.S. requires readers to work out the length of a piece of steel circling a 24,900 mile equator one-inch clear of the surface all the way. This correspondent sent the first correct answer to confused readers.

P.J.Q. (Motueka): Your shot was not quite a bulls-eye, but very close. Afraid the Calculus Kings would not consider any *practical* method of crossing a river against the current. See note on Macskooshook.

N. E. Junge (Ashburton): Sends correct answers to several problems, and a novel solution of The Carpenter. He saws the plank in a half-inch diagonal section down the middle, turns one piece over, and reverses their positions, so that he has a shelf of the required size with a bevel at front and back.

H. Williams (Gisborne): Agrees that the fly walked five inches, but is also worried about the thickness of the edge. He asks chess players to place eight pawns with the powers of a queen, so that no one threatens any other.

W.I.H. (Te Kauwhata): Sends some correct answers and a problem which is given elsewhere. Asks that we suppress the mathematicians; but we can see no harm in letting them play in the backyard. We have had his other problems before.

R. W. Rogers (Uranui): Takes 45 from 45 and leaves 45 by making up a sum like this:

$$9+8+7+6+5+4+3+2+1=45$$
$$1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9=45$$
$$8\ 6\ 4\ 1\ 9\ 7\ 5\ 3\ 2=45$$

This correspondent takes an easy way out of The Cannibals. The problem *did* specify that the whites must never be outnumbered.

Later Letters

This is a summary of material which arrived later than that covered in the page already:

L. Wilson (Christchurch): Sent two good puzzles, which will be used as early as possible, and correctly answered several.

Tane (Whakatane): Says the answer to Donkey No. 2 would be 49.321 yards. The speed of the boat crossing the river would be 10.0005 m.p.h., working from inverse circular functions. The cone's volume was 226.72 cu. ins.

L.C.T.: Sends more of his excellent acrostics. We are considering other matters raised in his letter.

H. S. Scott (Onehunga): Sends correct answers.

G. Tisbury: Finds the volume of the cone was 261 19/21 cu. ins. To complicate the problem, he set about mixing the water and the wine, he points out that these fluids, when mixed, takes less volume than when separate, so that the correct answer to the problem was 3/11. More about that later.