



PROPOSITION—To change a square into a Greek Cross.



ERE IS A PRETTY cutting puzzle, built upon the lines of the well-known Greek cross puzzle, only it is made more difficult by working the theme backward. In this case you are required to convert a square into a cross instead of a cross into a square, which is not so easy, for the reason that there are no angles and corners to assist you.

The problem is to divide the square into four pieces which will fit together and form a perfect Greek cross.

Lightning Messenger Boys—A Problem for the Juvenile Class.

Harry Nimble, as his name implies, is the most speedy telegraph boy in the city, while Jimmy Pace, can set the pace against all the district messengers in the service. It is not surprising, therefore, that it once so happened that these popular flyers were engaged simultaneously on urgent business. The one was to convey a message from a broker to a customer, telling him that the market was going to smash and that he had better unload his stocks. The other messenger chanced to be from the customer to the same broker, ordering him to clean out

everything at panic prices. The boys met in the park, going in opposite directions, on the full run.

"Hullo, Harry, where you runnin'?"

"Uptown with a special hurry what's yor'n?"

"Downtown, rush. Let's rest. How much money you got? See mine?"

"Gee, what a pile. Let's play a game of poker for fun while we get our wind. I've got the cards, and you can't beat me as you did last time."

"Yes, I kin; come on. We got lots of time." So these two speedy boys seated themselves so as to recuperate their mind, that they might make all the better speed when they resumed their lightning journeys. They were not playing for keeps, and were to readjust their finances at the end of the game.

At one stage of the play Harry had twice as many pennies as he began with, but Jimmy in his impetuous way staked all that he had left in one jack pot and won, so he then had 36 pennies to Harry's 42.

As it was getting too dark to play longer they broke up the card party, straightened out their finances and resumed their mad career. The problem is to tell just how that money was to be divided so that each boy could get back his original number of pennies.

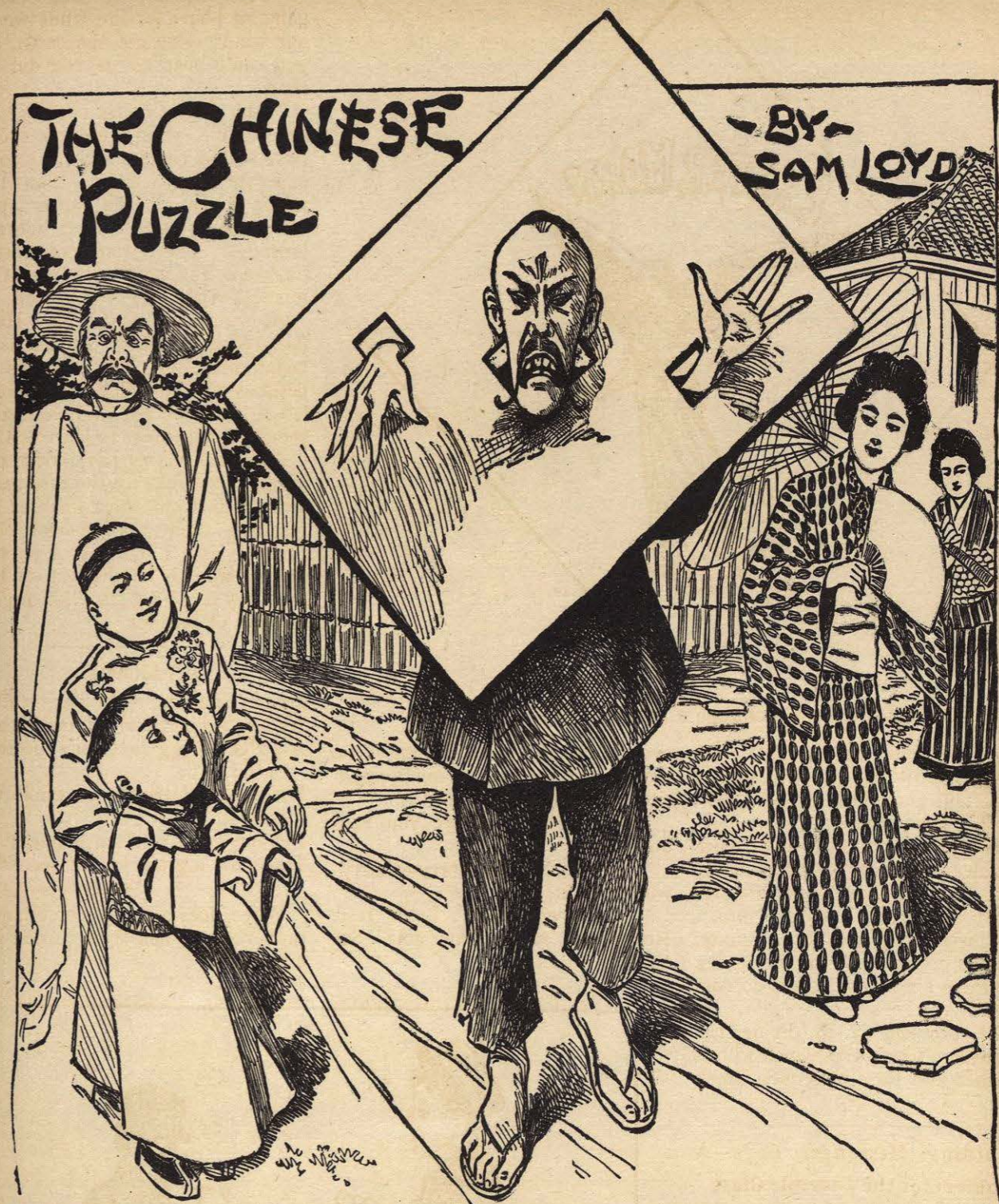
CHARADE.

Crispin, snug in his cobbler's stall,
Waxing his end and driving his awl,
A judge of my first may be reckoned;

For deeds of blood my whole was famed,

But innocence is often blamed;
Transpose a grain for my second.

When does a cow become landed property?
When she's turned into a meadow.



PROPOSITION—Divide a square piece of paper into two halves which will fit together as shown



AW IS ADMINISTERED according to original but impartial lines in the Flowery Kingdom," says a distinguished traveler. "I once saw an accident where the overturning of a platform precipitated a workman from the roof of a lofty building. He struck squarely on the head of a passer-by, who was killed instantly, while the lucky fellow who tumbled nearly a hundred feet escaped without a scratch.

In the above narrative, strange

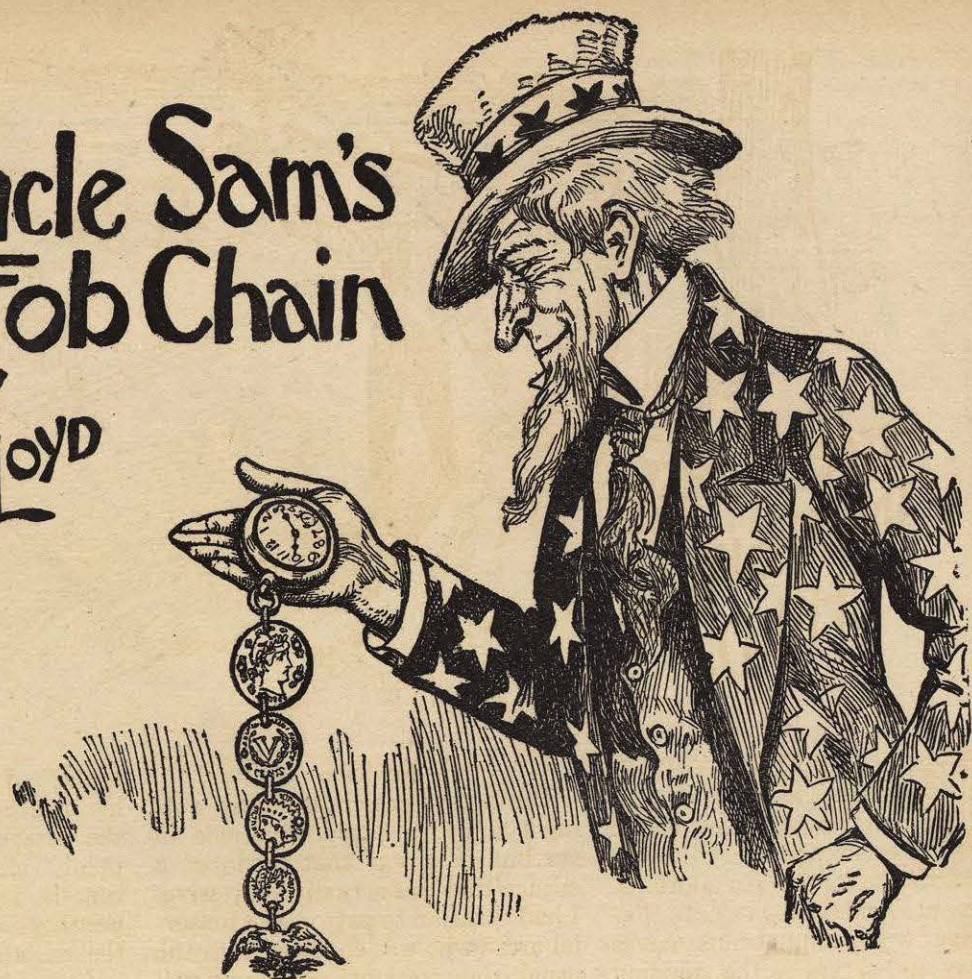
as it may seem, we find the description and terms of a capital puzzle fully set forth. The stocks, which secure the head and wrists of the unhappy culprit, as shown in the picture, were made from a square piece of wood, which we are told was divided into two pieces. Like all mathematical problems, the proposition can be worked either way, viz., to make a pair of stocks by dividing a square, or to divide the stocks into halves which will fit together and form a square.

The Puzzle.—Take a perfectly

square piece of paper, and, without any waste, cut it into two pieces which will fit together and form an oblong pair of stocks, with openings as shown in the picture, for head and wrists of the culprit. As already ready explained, the two pieces forming the stocks can always be refitted back into a perfect square, with the three openings closed, but there is a pretty trick connected with the feat of producing the holes in the exact positions as shown which will tax one's patience and ingenuity.

Uncle Sam's Fob Chain

BY
SAM LOYD



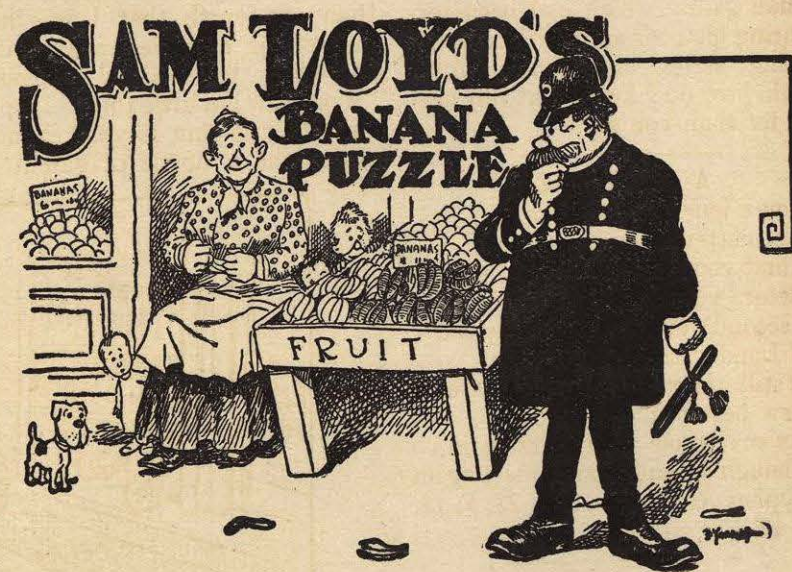
WAS SHOWN A curious fob chain the other day, patterned after the old custom of carrying a string of coins attached to a watch. This particular fob chain consisted of four coins and the figure of an eagle. The coins, as shown, were punched respectively with five, four, three and two holes, so that the small links which joined them together might have been placed differently, so as to have furnished quite a variety of patterns.

This feature of being able to produce a series of fob chains, consisting of a string of four coins connecting the watch and eagle, gave rise to quite a discussion regarding the number of possible arrangements which can be made from the pieces as shown, without any two being exactly similar.

The design has been adopted by the society of Patriotic Americans, which was recently organizer irrespective of party politics to demand respect for the Chief Executive during his term of office.

The chain is built upon a progressive order of presentation, so that each one would be different and could be recognized upon a fellow

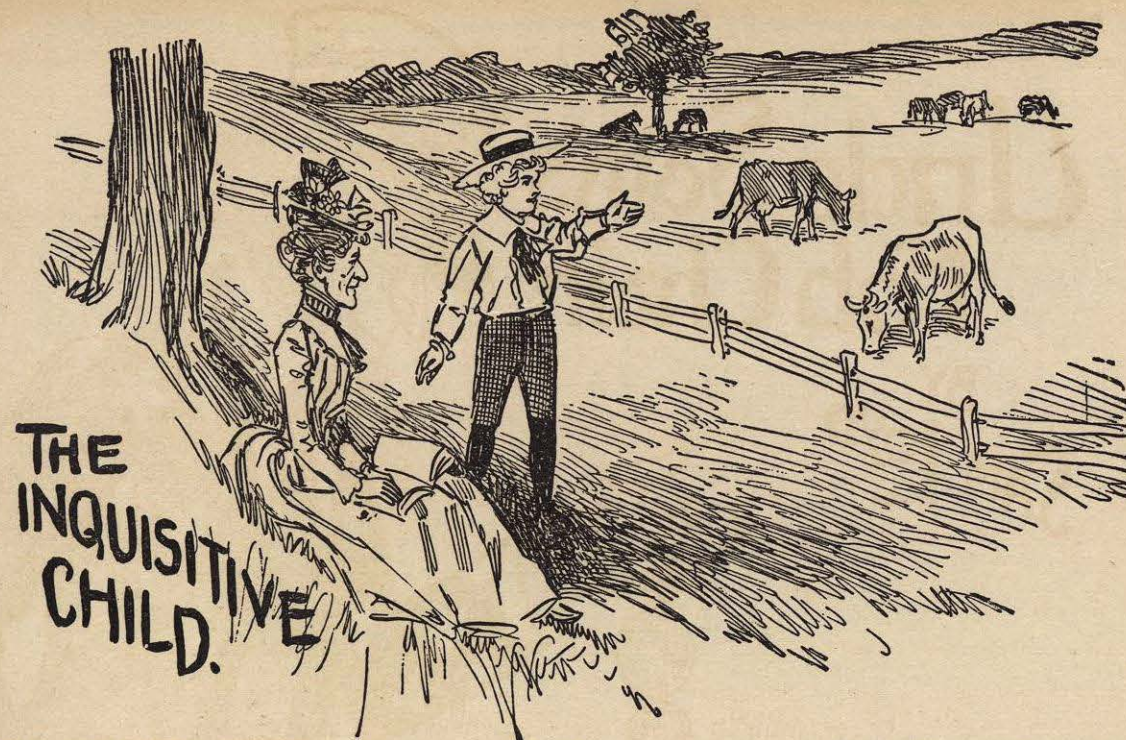
member as designating a given number. The problem of the puzzle is to determine just how many chains could be made without any two being exactly alike.



"The top of the mornin' to you, Mrs. O'Neill," said Clancy, the mathematical. "Can you tell me why the banana market is like a sunset?"

"I'm not dealing in chestnuts just now, Clancy," replied Widow O'Neill, with a twinkle in her eye, as she recalled the old conundrum,

"but perhaps you can tell me how it is that when I buy yellow bananas at three shillings a bunch and the same number of red ones at four shillings a bunch I would get two more bunches for the same amount if I divided the money evenly between the yellow and red bananas?"



IF PARENTS APPRECIATED the benefit of puzzle practice they would encourage everything in the form of conundrums, riddles, problems and puzzles. Familiarity with conundrums paves the way and serves as the stepping stones toward the ability to master and originate clever puzzles. The above simple conundrum is supposed to be asked by a species of human gadfly which had been tormenting his poor aunt with a never-ceasing series of queries: "Aunt Sarah, how do I know that this field is older than you are?"

A CHARADE.

If you a journey ever take,
No matter when or where,
My first you'll surely have to pay,
Before you can get there.
My second you would scarcely see
If London through you go;
But still 'tis what I hope you are;
Few better things I know.
I say my whole with secret pain,
Though hoping soon to meet again
Cypher Ans. 6, 1, 18, 5, 23, 5, 12,
12.

Why do sailors working in brigs make bad servants? Because it is impossible for a man to serve two masters well!

Why are unprotected grates like insolent beggars? Because they are destitute of-fenders.

What notes compose the favorite tunes, and how many do they compose? Bank notes, and they make for-tunes.

No Sale.

During my present summer outing I nipped a prospective sale in the bud in a way that produced a silence that was actually oppressive. I had occasion to patronize a tonsorial artist who was endowed with the usual conversational powers as well as business instincts of his craft, but my mind was so tangled up in the consideration of the problem as to how much greater is four-fourths than one-fourth that I was in no humor for extended conversation; so when he politely suggested: "Your hair is a little thin!" I replied, "not half so thin as your chance of selling me a bottle of patent hair

tonic." I heard him gasp and catch his breath, but he speedily renewed the attack from a different standpoint, meekly saying: "Our bay rum is a little sour from the hot weather!" But again I headed off the entering wedge by remarking: "If your bay rum is sour, you may use good river water!"

That remark was a clincher, and from the long silence I was inclined to think he was working out the secret concealed in my remark. It is a concealed-word puzzle wherein you are to find a geographical lesson hidden in the description of the picture.



THE PUZZLE OF MARTHA'S VINEYARD

—BY—
SAM LOYD



PROPOSITION—How many grape vines can be planted, not closer than nine feet apart, in a square plot containing one-sixteenth of an acre?

REFERRING TO the popular legend of the settlement of Martha's Vineyard, it may be said that there is a possible solution or explanation to the pretty story which is worthy of being given in puzzle form.

It is told how, in Colonial days, one of the sturdy settlers who had undertaken the difficult task of cultivating the rocky soil of that barren island, essayed with the aid of his little daughter Martha, to set out a vineyard. To encourage her, as well as in lieu of other remuneration, he permitted Martha to cultivate for her own use or profit a little square patch containing exactly a sixteenth of an acre of land.

It is said that she planted her vines, according to custom, in rows nine feet apart, and cultivated them just like the others, and yet, as the story goes, her little venture prospered and grew in a way that made Martha's Vineyard noted. She raised more grapes to the acre than any vineyard on the island and

produced many new and valuable varieties, which became famous.

That is all there is to the story when it is reduced to plain facts. Nevertheless, without wishing to impeach Martha's skill nor to question her sweetness which imparted the flavor to her grapes, I wish to engraft a practical problem to her vines which may explain the reason of her wonderful success.

How many grape vines, not closer than nine feet apart, can be set out in a square plot one-sixteenth of an acre in size?

The problem is a pretty one, well calculated to tax the ingenuity and cleverness of our puzzlists and mathematicians, but not to compel a return to the long forgotten school books, occasion is taken to say that an acre is 208 feet and 710-1000 of a foot square, so that a sixteenth of an acre in 52 feet 2 inches square. This you will observe is somewhat different from the popular measurement of 70 yards square which prevails in the rural districts, where a plot 210 feet square is reckoned as an acre.

Why is a naughty school-boy like a postage stamp? Because you lick him with a stick and place him in the corner.

Why is I the luckiest of all the vowels? Because it is in the centre of bliss, while E is in hell and all the others are in purgatory.

What is the longest word in the English language? Smiles, because there is a mile between the first and last letter.

Why have chickens no fear of a future state? Because they have their next world (necks twirled) in this.

Why cannot a deaf man be legally convicted? Because it is unlawful to condemn a man without a hearing.

Why is a man who beats his wife like a thorough-bred horse? Because he's a perfect brute.

What is that which you can keep after giving to some one else? Your word.

Why are dealers in glassware unlike all other dealers? Because it won't do for them to crack up their goods.



COUNTING CHICKENS BEFORE THEY ARE HATCHED

BY
SAM LOYD

PROPOSITION—How many chickens must one start with to have 6468 at the end of three years?

THE ADVANTAGE OF being able to estimate with absolute correctness the profits resulting from an incubating venture so as to lay one's future plans with safety is illustrated in this interesting puzzle.

"If you should marry that worthless fellow," exclaimed the irate father, "what do you expect to live upon?"

"My dear papa," replied his daughter, "Claude has got it all planned and figured out. He is going to buy some chickens this spring and raise so many broods of young chickens that in the fall we can sell enough of the surplus gentlemen chicken for us to get married on. We will sell enough at the end of the second year to pay our housekeeping expenses, and on the third year we will have 6468 chickens! Which we will dispose of so as to pay off that \$3,000 mortgage on the house, which worries you so much."

The data seems to be somewhat vague, nevertheless, allowing for the enthusiasm which is a part of love's young dream, we must as-

sume certain averages and ratios are to be maintained throughout the entire enterprise so as to produce the result claimed.

It need only be said that after a careful examination of the calculations which the young couple had made on the other side of that paper, the stern papa relented and gave his consent, so the wedding took place and the mortgage was paid off on schedule time, besides leaving a little surplus for contingencies which developed. For the benefit of other young couples contemplating similar ventures we ask our puzzlists to tell just how many chickens they must have had to start with.

What is the first thing a man sets in his garden? His foot.

Why does a bachelor who has a counterfeit half dollar passed on him want to get married? To get a better half.

Why do we generally dub a city her or she? Because about a city there is so much bustle and because she has outskirts.

Why are washwomen great flirts? Because they wring men's bosoms.

Why does a hair-dresser die a sad death? Because he curls up and dies (dyes).

If thirty-two degrees is freezing point, what is squeezing point? Two in the shade.

Prove that the winds are blind. The wind is a zephyr, a zephyr is a yarn, a yarn is a story, a story is a tale, a tale is an attachment, an attachment is love, and love is blind; therefore, the winds are blind.

Why is a married man like a fire? Because he provokes his wife by going out at night.

Why is a pig's brain larger than any other animal's? Because he has a hog's head full.

What is the difference between a young lady and a mouse? One charms the he's, the other harms the cheese.

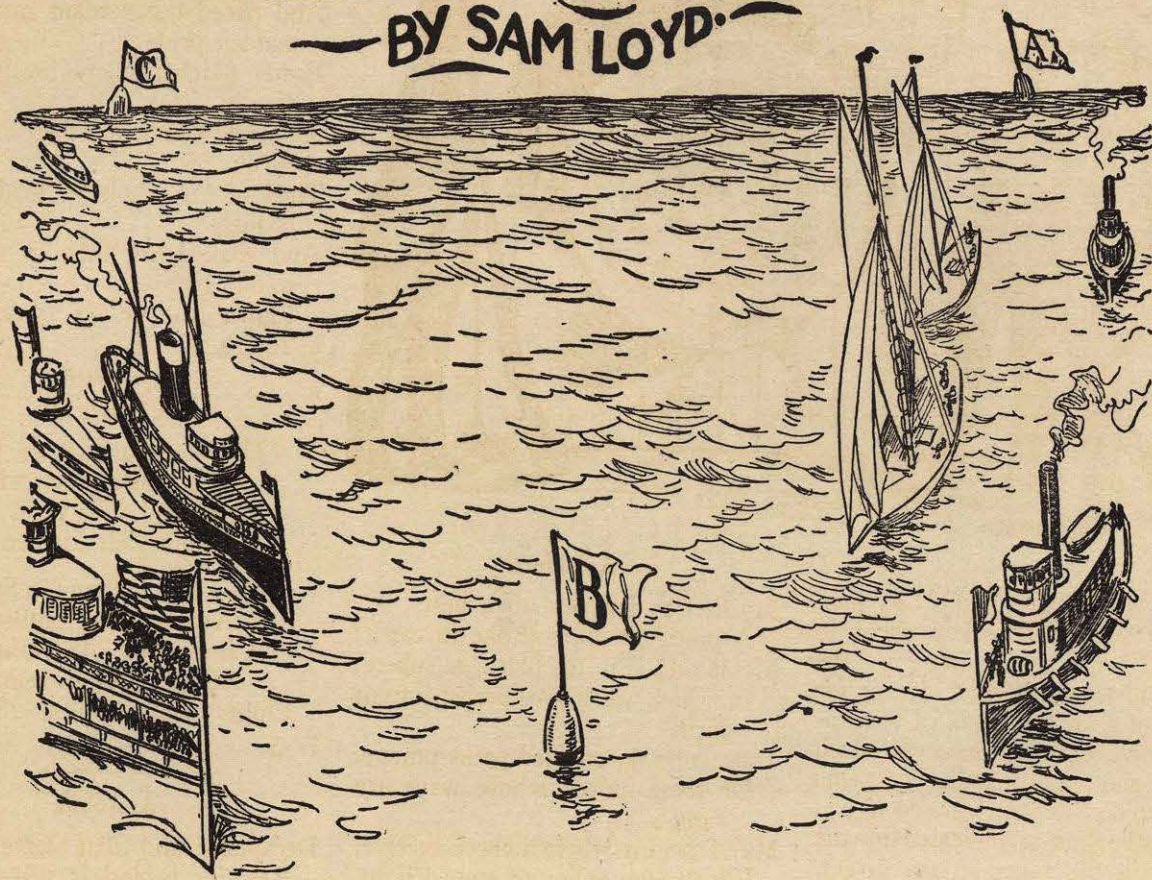
Why is Patti like a jeweler? Because she deals in precious stones (precious stones).

When is a bee a great nuisance? When it is a humbug.

What is the difference between a gardener and a Chinaman? One keeps the lawn wet, the other keeps the lawn dry (laundry).

THE YACHT RACE

BY SAM LOYD.



PROPOSITION—Give the correct time of this race.

A TIMELY TOPIC of the hour we will ask our puzzlists to come to the aid of three land lubbers who know so little about nautical matters that they are all at sea over a little problem pertaining to the international yacht race.

They endeavored to keep exact tab on the speed of the boat, but not being very good sailors, Father Neptune interfered somewhat with their observations, so their log book shows that their account of the race is divided into two dog watches, the one overlapping the other. Smith, who had charge of the first dog watch, failed to record the exact hour of starting, but reports that the boat sailed the first three-quarters of the race in three and a half hours, at which stage of the game he retired, owing to seasickness. Jones, who had charge of the last dog watch, records that the last three-quarters of the race were sailed in four and a half hours, while Brown, who had charge of the middle watch, was so anxious to reach land that he only noted that the middle leg of

the race was ten minutes slower than the first.

To some people it may look as if there were six quarters to the race, but as puzzlists are not disturbed by such trifles, any explanation would be superfluous. You see it was a triangular course, of ten miles to each leg, although that is immaterial as the gist of our problem turns upon the time consumed between the buoys A, B, and C, irrespective of the distance. At what hour did the race end, if the boats started at nine minutes past ten?

A PUZZLE.

Express with four letters a sentence of four words containing fourteen letters? Ans. I O U O.

There was a man who was not born,
His father was not born before him,
He did not live, he did not die,
And his ep taph is not o'er him?
Ans. The man's name was Not.

Why is a note of hand like a rosebud? Because it is matured by falling due (dew).

A REBUS.

My first it is a curious thing,
Of Nature's own produce,
And many who have lost a limb
Have found it of great use.

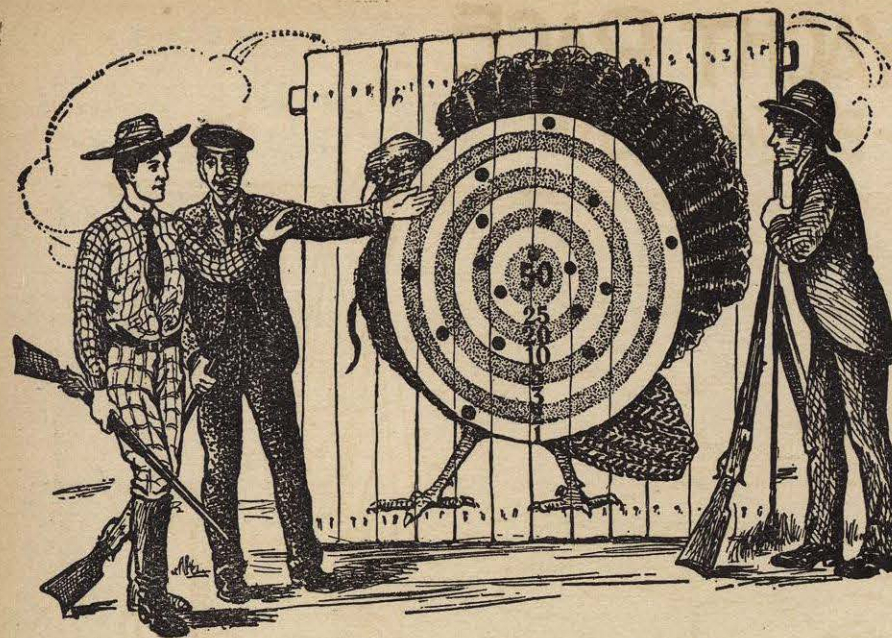
By my second's wondrous skill
Ships are made with ease,
To stem against both wind and tide
Across the boundless seas.
My whole is very often found
Together with my first,
And comes in very handy
When you would quench your thirst.

Cypher Ans. 3, 15, 18, 11, 19, 3, 18, 5, 23.

My first is a female,
My second the same,
My whole is much dreaded—
Pray what is its name?
Ma-lady.

How would you express in one word that you had met your doctor?
Met-a-physician.

Why is a blush an anomaly? Because a woman who blushes is admired for her cheek.



A Rebus

Here is a Thanksgiving Day puzzle representing a turkey shoot in which I once participated in the "wild and woolly West." It was for a prize of a fat turkey and I remember that we all made tie scores. Each had six shots and made seventy-one points apiece, as you will see if you add up the hits as indicated by the number in the rings on the target. I remember that the score made quite a respectable puzzle, for the reason that it requires some little ingenuity to pick out the six counts which each one must have made if we made tie scores.

A Charade

My first may be borne by some sorrowful hack,
Which adds to his cares and the sores on his back;
But ah! should he feel all the weight of my second,
His misery, nearly complete, may be reckoned;
My whole often adds to your pleasure or pest;
No more need I say—you'll soon find the rest.
Cipher Answer.—16, 1, 3, 11, 1, 7, 5.

A Rebus

My first's a well-known cruel rogue
Who lives by deeds of fraud;
My second's often in your hand
When you would walk abroad.
My whole may frequently be found
In fields where beauties bloom around.
Cipher Answer.—6, 15, 23, 7, 12, 15, 12, 5.

A Rebus

Seeking my first, as once fair Biddy hied
And paced the verdant meads with maiden pride;
Paddy perchance my lovely second viewed,
And stole a kiss, and then for pardon sued;
Then of my whole he made a neat boquet,
And coaxed her then to name the wedding day.
Cipher Answer.—3, 15, 23, 19, 12, 9, 16, 19.

A Charade

My first's a sign of pain,
Of sorrow, or surprise:
My second, it is plain
Within your kitchen lies.

My whole is found in Spain,
'Neath genial southern skies,
A fruit—but I'll refrain,
And leave it in disguise.
Cipher Answer.—15, 18, 1, 14, 7, 5.

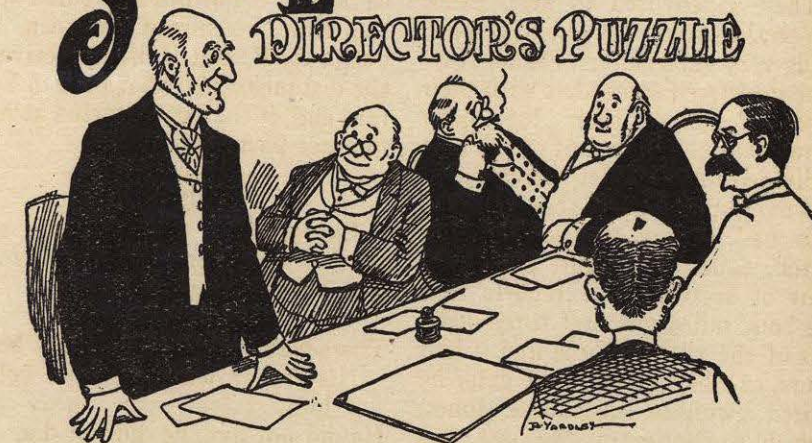
A Rebus

Decapitate, and what of me
Remains behind is still before;
Curtail my last, well pleased to see
The prudent still provide a store.
Curtailed again, my head replace,
See me on Israel's border stand;
My whole a poet's name display
Whose fame is known in every land.
Cipher Answer.—4, 1, 14, 20, 5.

Drop Letter Puzzle From Tennyson. Every Vowel Omitted.

T. b. wr w. th .n. w. l. v.
D.th w.rk l.k. m. dn.ss .n th.
br. .n.

SAM LOYD'S DIRECTOR'S PUZZLE



"Gentlemen," said Chauncy, at a recent directors' meeting, "the present income from the earnings of the road would pay 6 per cent. upon the entire stock issue, but as there is \$4,000,000 of preferred stock upon which we pay 7½ per cent. interest we are therefore only able to pay 5 per cent. interest upon the common stock." From these facts you are asked to tell the amount of the common stock.