Remnant Bargains Puzzle by ~ Sam Loyd

AS A COMPANION puzzle toPythagora's classical problem of the combination of two squares, we offer Deacon White's bargain puzzle, which illustrates an extension of the famous Pons Asinorum. Mrs. Deacon White has purchased a piece of lineoleum, and, having a little triangular piece thrown in for nothing is endeavoring, with the good Deacon's assistance, to plan how to cut the pieces so as to form a perfect square. It contains a simple but pretty geometrical principle, which you could not learn at college.

What Did She Want?

"At my home the other day a young lady from Boston astonished the household by asking the loan of a diminutive, argenteous, truncated cone, convex on its summit and semi-perforated with symmetrical indentations."

What land is like a merry dog wagging his tail? America (A merry cur).

What is the difference between a light rain and a young gentleman? One is mist and the other Mr.

A Charade

I captivate many when trained well by art,
To each lover of song an impulse impart;
Though to gay pleasure I'm closely allied,
The grave son of care to me will confide;
The miser will smile when safe with his gold
My fairest of forms he has carefully roll'd;
I useful am found in commerce and trade,
To friendship and love I lend my kind aid.
Ladies, then, while you are aspiring to me
Let virtue and worth your motto still be;
Then grandeur may frown and envy may scorn,
But happy if merit your life shall adorn.
Cipher Answer.—14, 15, 20, 5.

How far is it from February to April? A March of thirty-one days.

Who is the most popular man of letters in the country? The postman.

Why is a clergyman sometimes like a carpenter? Because he is often a joiner.

A Rebus

My first is fair and light as air,
And often meets our view;
My next adorns the rugged thorns
When wet with pearly dew.
In modest mien my whole is seen,
In yonder garden gay;
It's lovely form oft braves the storm
Of winter's closing day.
Cipher Answer.—19, 14, 15, 23, 4, 18, 15, 16.

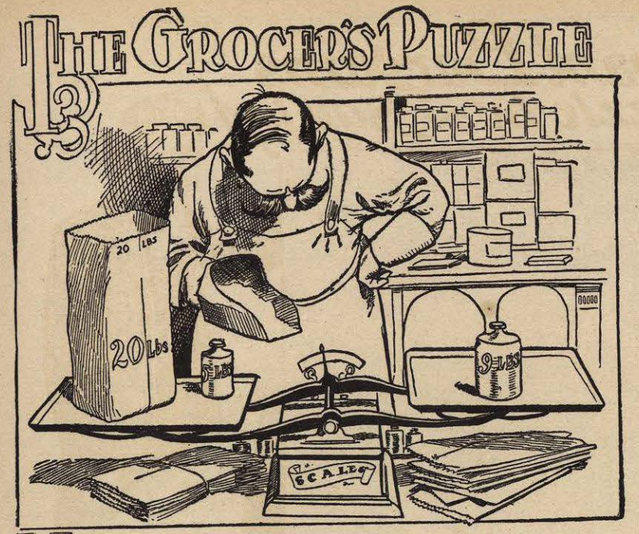
A Paradoxical Word Puzzle

When you gaze on my face
It looks just like my back;
When my form you can trace
A woman you'll track;
And when she is found,
You'll find she is none.
Now go and "expound,"
And don't say I "poke fun."

A Charade.

My first to my second is like a twin brother,
Each seems but an echo of the other.
My whole may be heard'mid the wild, surging throng,
Or where the cool rivulet dances along.
Cipher Answer.—13, 21, 18, 13, 21, 18.

The Grocer's Puzzle



With only 5 and 9 pound weights how can he put his 20 pounds of sugar into packages of 2 pounds each?

Of course there are many ways of doing this puzzle; for example, weigh fourteen pounds of sugar by placing the five and nine pound weights on one side of the scales, so as to leave but six pounds of sugar in the large bag. Then, weighing out five pounds more from that six with the five-pound weight, we have but one pound left in the bag, which may be used as a weight to get two pounds in each bag.

The puzzle, however, is to perform the feat in the fewest possible number of manipulations, so as to show the quickest way to do it.

A Rebus

My first is nutritive and good,
A valued part of human food.
My next oft blooming as the rose
That in yon garden sweetly blows,
My whole trips daintily along,
And cheers the hamlet with a song.
Cipher Answer.—13, 9, 12, 11, 13, 1, 9, 4.

A Charade

My first, for ages dangerous reckoned,
Was ne'er so deadly as my second.
If rightly you conjure the two,
I tell what every man should do.

A Rebus

If you, my whole, would now expound,
You'll find the form is mostly round;
Cut off my head, you then will find,
I'm not before, but come behind.
And if again my head you sever,
You'll find me still in pool or river.
Cipher Answer.—13, 8, 5, 5, 12.

A Tailor's Problem.

Here are two pretty puzzles belonging to the one design. A tailor had a remnant of cloth which he wished to cut into four pieces of the same shape and size. Show how he performed the feat by marking out a similar design. The second is a cutting puzzle. Take a piece of paper of the same shape and cut it into the fewest possible pieces which will fit together so as to make a perfect square.

A Rebus

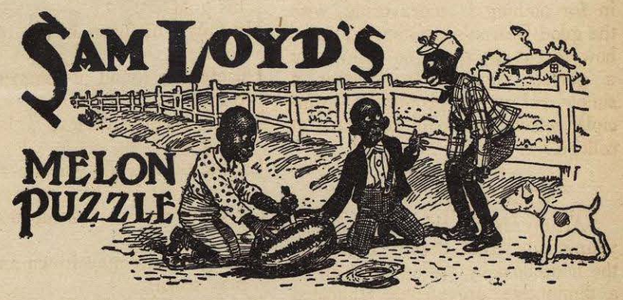
My first, I must own, is duplicity's self,
A granted permission my second will name;
My whole will exhibit a privileged elf,
To encircle a part of your delicate frame.
Cipher Answer.—2, 18, 1, 3, 5, 12, 5, 20.

A Charade

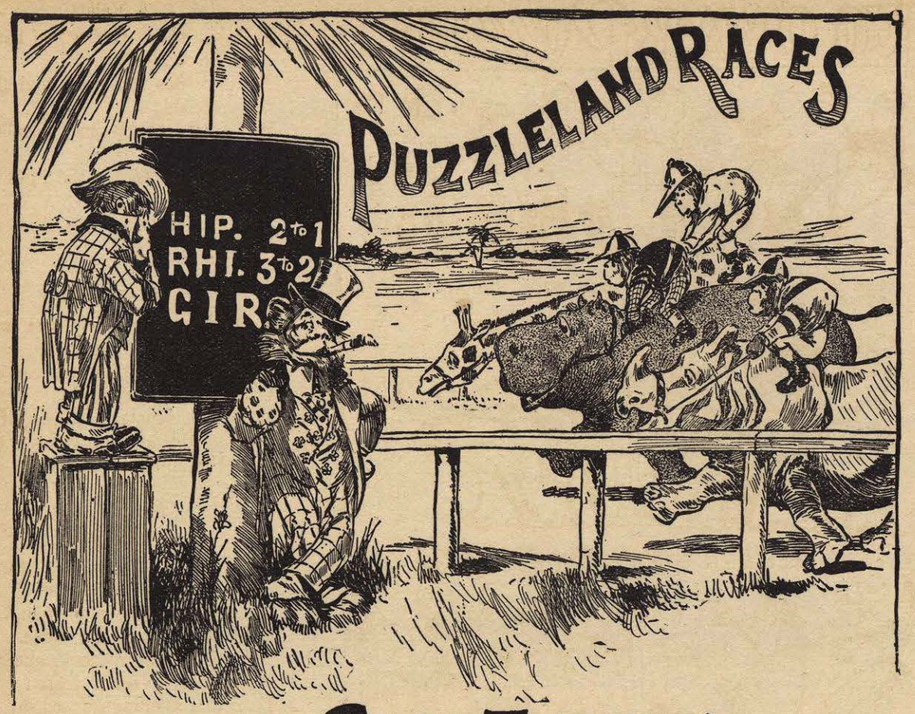
In battlefield when front to front,
Contending armies bear the brunt,
My first is in the fray;
If e'er with quantities perplexed,
You gents may measure with my next,
Or with my total weigh.

Why is a fish hook like a horse? They both need baiting.

Sam Loyd's Melon Puzzle



Frank and Sammy bought a watermelon for forty-eight cents, Frank contributing thirty cents and Sammy eighteen, which they were going to divide in proportion to their relative investments, when, spying Billy passing on the road, they conspired to unload a third of the melon upon him for the cost of the whole. After Billy had gone the boys proceeded to divide the money as they thought right, and then each of them ate a half of the remainder. How should the money be divided between Frank and Sammy?



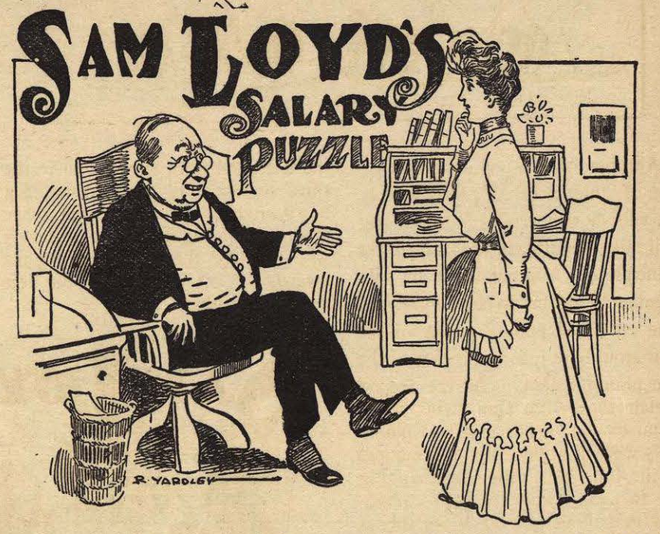
Just to show how little many people who are infatuated with the races really know about the theory of chances, we ask the following simple question:

If the odds are 2 to 1 against the Hippopotamus and 3 to 2 against the Rhinoceros, what should be the odds against the Giraffe if everything is on the square, as it always is in Puzzleland?

Here is the second puzzle connected with the same picture, which shows how they make up a handicap in Puzzleland:

If the Giraffe can beat the Rhinoceros one-eighth of a mile in a two mile handicap race, and the Rhinoceros could beat the Hippopotamus one-quarter of a mile in a two mile handicap, what distance could the Giraffe beat the Hippo in the same race?

The Salary Puzzle.

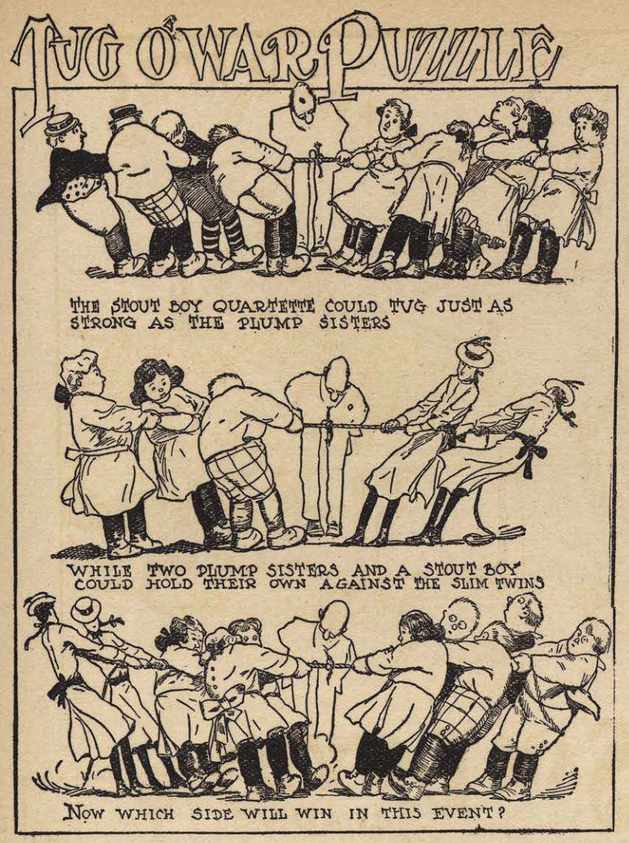


Here is a problem from the ordinary affairs of life which is as interesting as it is puzzling to all who tackle it. The "Boss" was feeling pretty good the other day, so he said to his stenographer:

"Now, Mary, in view of the fact of your never indulging in useless vacations, I have determined to raise your salary $100 every year. Beginning from to-day, for the ensuing year, you will be paid weekly at the rate of $600 a year; next year at the rate of $700, the next at $800, and so on, always increasing $100 per year."

"On account of my weak heart," replied the grateful young woman, "I suggest that it would be safer to make the change less abrupt. Start the salary from to-day upon the basis of $600 a year, as suggested, but at the end of six months raise it $25, and continue to give me a $25 raise every six months, so long as my services are satisfactory."

The boss smiled benignly upon his faithful employee, as he accepted the amendment, but a twinkle in his other eye set some of the boys to figuring as to whether or not the "Boss" made a wise move by accepting her proposition. Can you tell?



Apropos of the popular introduction of athletics in our public schools, we will show how a little tug-of-war pull might be utilized to illustrate the principle of changing terms by substitution in algebra to clear equations. The combined pulling power of the four stout boys just equals that of the five plump sisters. As the second sketch shows the slim twins to be equal to a stout boy and two plump girls we will at once simplify matters in the third illustration by changing the two slim twins for their equivolent in pulling power, so we substitute the fat boy and two plump girls. By this change we now have in the third picture five plump sisters and one stout boy opposed to one plump girl and four stout boys, so we cancel off five plump girls from one side and four stout boys from the other, because the first sketch gave it as their relative pulling power, and we are left with one girl on the right as opposed to one boy which proves that the left hand team should win in the third sketch as it has one-fifth of a boy's strength more than the other team. The mathematical professor who umpired the match said in his award, "∴ as 25 : 24 : : the left team : the right."

A Rebus

To boast of my first would but shallow be reckoned,
To all it has happened, and that at my second;
But who is so unfeeling, so callous of soul,
As not to rejoince at the sight of my whole?

Cipher Answer.—2, 9, 18, 20, 8, 16, 12, 1, 3, 5.

A Charade

Ye bards, perhaps my first may do
Ere you begin to sing;
My second oft salutes the ear
When horrid wars begin.
My whole denotes a stupid elf,
So find this out, to clear yourself.

Cipher Answer.—8, 21, 13, 4, 18, 21, 13.

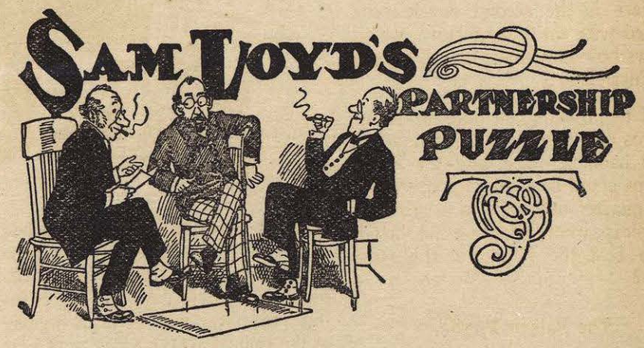
A Rebus

Miss Ann was only five years old,
And scarcely yet was able,
Upon my first, as I am told,
To reach above the table.
Yet she my second took, queer soul,
And for no other reason
Than that mamma refused my whole
Until another season.

Cipher Answer.—20, 9, 16, 16, 5, 20.

A Charade

My primal is found where the wild waves are dashing,
And thick falls the cold, briny spray;
My final is seen where the fierce eyes are flashing,
And fortunes are thrown awav.



Here is a practical problem from common, every-day affairs which is well worthy of your consideration:

In the old firm of Brown & Jones, Brown had one and a half times as much capital invested in the business as Jones, when it was decided to admit Robinson upon the payment of $2,500, which was to be divided between Brown and Jones, so that the interests of the three partners would then be equal. How should the $2,500 be divided?

PROPOSITION---If the Three Graces, with roses of varied hue, meet the Three Graces laden with golden apples, and each Muse gave each Grace the same quantity of roses and received the same quantity of apples, how many of each did they have?

HERE IS A GRECIAN fragment from ancient mythology, ascribed to different ages and to as many different men. The problem feature has been accredited to Euclid and Archimedes, although it is known that Homer sang of the mythical daughters of Zeus, with their apples and roses many, many centuries before.

The problem of the Graces dividing their flowers with the Muses may be as old as the Pyramids, and yet, although I have seen it clothed in many forms as a tit-bit of classical lore, I have never known of an attempt to analyze or throw light upon that part of the legend which seemingly conceals a mathematical mystery.

The story would be clearer to our puzzlists, perhaps, if I gave the original Greek, but he is away, and as our font of Greek type is somewhat out of sorts, I am compelled to give what might be called a verv freehand translation, keeping as close as possible to the literal wording of the original, which differs materially from the meaningless version so often published in puzzle books:

Problem of the Graces and Muses.

As through Olympian garden bowers
Strolled three fair Graces, culling flowers
Of perfume rare, and varied hue,
From pink and white to red and blue,
They chanced nine Muses fair to meet,
With golden stores of apples sweet.

Each Muse, in turn, to every Grace
Some apples gave, and in their place
Such roses did receive as made
Their stores all just alike, 'twas said,
Now, if the numbers were the same,
The quantities of each proclaim!

I do not believe that a dozen lexicons would make the meaning plainer There were nine Muses with roses of various hues, as described, who met three Graces laden with golden apples. Each of the Muses gave to each of the Graces, and each of the Graces gave to each of the Muses, so that "'twas said" all their stores were just alike—every Muse and Grace having a similar stock representing an equal number of apples and roses. It is a pretty puzzle for our muses to muse over,

Why are pianos noble characters? Because they are grand, upright, and square.

Why is a dog biting his tail like a good manager? Because he makes both ends meet.

What is the difference between a glass of water and a glass of soda water? Five cents

Why is a good cabbage the most amiable of vegetables? Because it is all heart.

Why is an an itoxicated man like a noun adjective? Because he seldom stands alone.

Why is a clergyman's horse like a king? Because he is guided by a minister

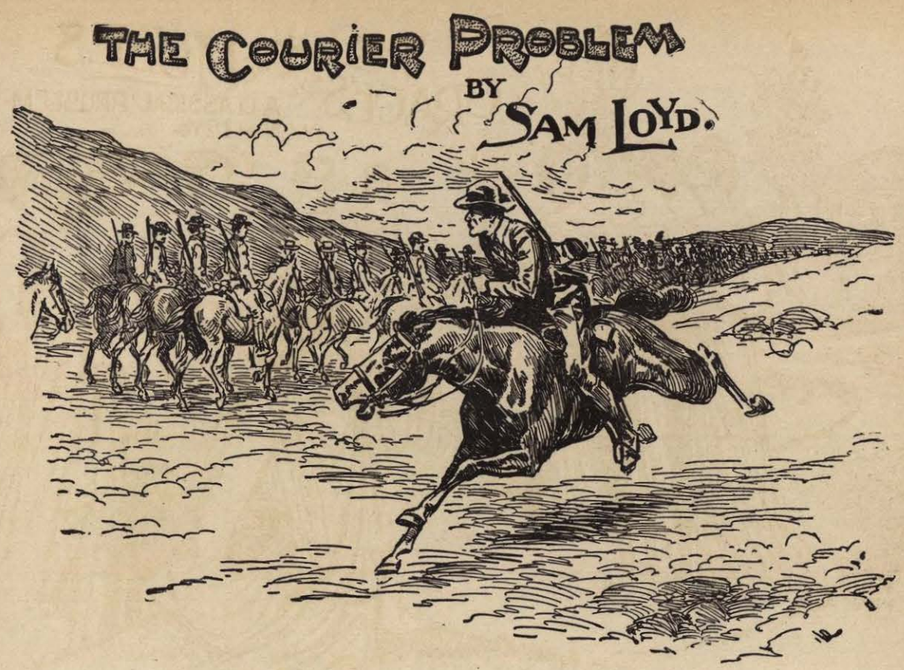
Why is a man in a garret committing murder like a good man? Because he s above committing a bad action.

Why is an avaricious man like one with a short memory? He is always for getting.

What is that which lives in winter, dies in summer, and grows with its root upward? An icicle.

Why is a handsome woman like bread? Because she is often toasted

Why should watermelon be a good name for a newspaper? Because its insides would be read.



PROPOSITION—An army 50 miles long advances 50 miles while a courier goes around it.

FOR THE REASON that many communications are being received relating to a very ancient problem, the authorship of which has been incorrectly accredited to me, occasion is taken to present the original version which has led to considerable discussion. It has been reproduced, in many forms, generally accompanied by an absurd statement regarding the impossibility of solving it, which produced letters of inquiry, as well as correct answers from some, who, under the misapprehension of having mastered a hitherto unsolved problem, desire to have the same published.

It is a simple and pretty problem which yields readily to ordinary methods, and can be solved by experimental analysis upon the plan generally adopted by puzzlists. The trouble is that the terms of the problem are seldom given correctly and are not generally understood, for which reason, with the aid of a realistic picture, we will first look at the ancient version which appears in the oldest mathematical works:

A courier starting from the rear of a moving army, fifty miles long, dashes forward and delivers a dispatch to the front and returns to his position in the rear, during the exact time it required the entire army to advance just fifty miles.

How far did the courier have to travel in delivering the dispatch, and returning to his previous position in the rear of the army?

If the army were stationary he would clearly have to travel fifty miles forward and the same distance back. But under the circumstances as stated, he must go more than fifty miles to the front, as the army is steadily advancing; on his return trip he meets the army and therefor does not have to travel so far. To those who are familiar with the rules which govern the question it is a simple matter, but to most people it will prove to be a problem which can not be guessed off hand.

A better puzzle is created by the following extension of the theme given as problem No. 2:

If a square army, fifty miles long by fifty wide, advances fifty miles while a courier makes the complete circuit of the army and returns to the starting point in the rear, how far does the courier have to travel?

It is self evident that the courier would have to ride two hundred miles if the army were stationary, so the point of the problem turns upon ascertaining how much he gains or loses by the advance.

Which is the favorite word with women? The last one.

At what age should a man marry? At the parsonage.

Why is an egg underdone like an egg overdone? They are both hardly done.

Why is a very old umbrella, that has been lost, as good as new when found? Because it's re-covered.

Why do the Salvation Army lassies walk on their heels? To save their soles (souls).

Why is the letter W like gossip? Because it makes ill will.

Which is the oddest fellow, the one who asks a question or the one who answers? The one who asks because he is the querist.

When does the wind most resemble a bookseller? When it keeps stationary (stationery).

What benefits can be derived from a paper of pins? It will give you many good points.

When is a new dress older than an old one? When it's more (moire) antique.

What plant is most fatal to mice? Cat-nip.

Why are balloons in the air like vagrants? Because they have no visible means of support.

If I were in the sun and you were out of it what would the sun become! Sin.

a well-filled pocket-book, and despite the fact that they had no more firecrackers and were financially broke, they promptly returned the wallet to a nice old lady, who was walking on the same block, and who proved her ownership by naming the contents. To reward the boys for their honesty she took what small change there was in the book and gave it to them. There was just 58 cents in six coins, but as it could not be divided into three even parts, she gave the eldest of the boys one coin, and then divided the remainder evenly between the other two boys, but told them to invest the entire amount in firecrackers, which they could divide more equitably.

There seems to be but little data to figure from, nevertheless, as there are several divisions of six coins which would fill the bill, I think our puzzlists should have no trouble in guessing the amount of that coin which the kind old lady gave to the oldest boy.

Why is the letter y like a young spendthrift? Because it makes pa pay.

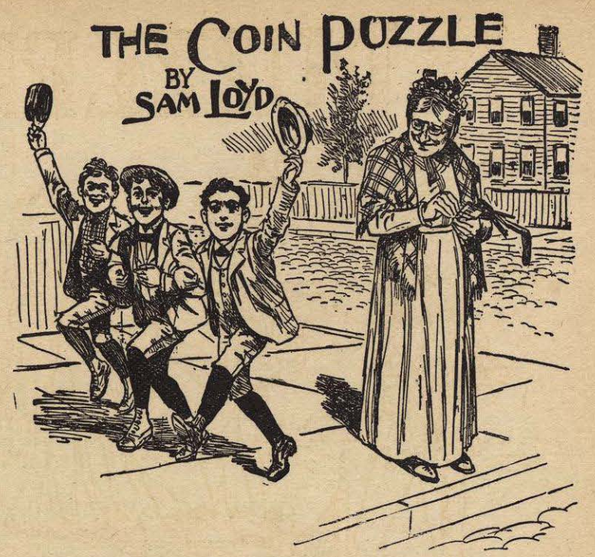
INVESTMENT PUZZLE.

The Smiths were purchasing a suburban villa when Smith remarked:

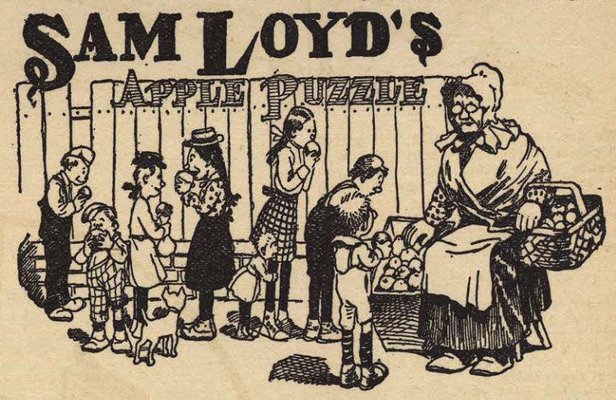
"If you give me three-quarters of your money I can just take the $5,000 house and you will have enough left to buy the shady grove and running stream?

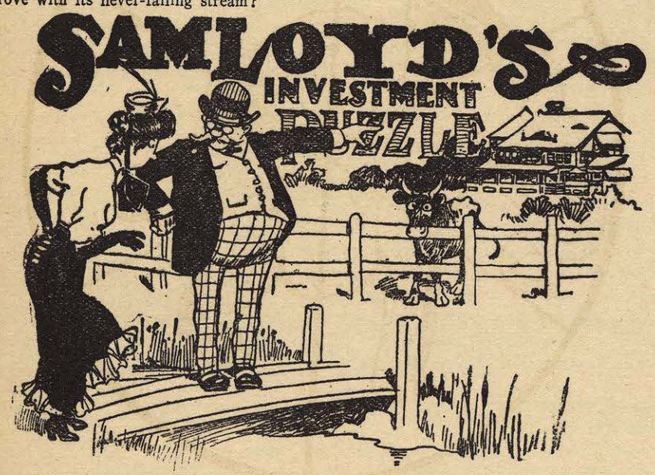
"No, no," replied his better-half, "give me only two-thirds of your money and I will buy the house and you will have enough over to purchase the grove with the babbling brook."

Can you figure out the value of the shady grove with its never-failing stream?



Eight children divided 32 apples as follows: Ann got one apple, May two, Jane three and Kate four. Ned Smith took as many as his sister, Tom Brown twice as many as his sister, Bill Jones three times as many as his sister and Jack Robinson four times as many as his sister. The puzzle is to prove the full names of the girls.





What is that which is often found where it is not? Fault.

What does a man want when seasick aboard ship? He wants the earth.

Who prolongs his work to as great a length as possible, and still completes it in time? The ropemaker.

Why is a philanthropist like an old horse? Because they stop at the sound of wo.

How many soft-boiled eggs could the giant Goliath eat upon an empty stomach? One, after which his stomach is not empty.

What fishes have their eyes nearest together? The smallest.

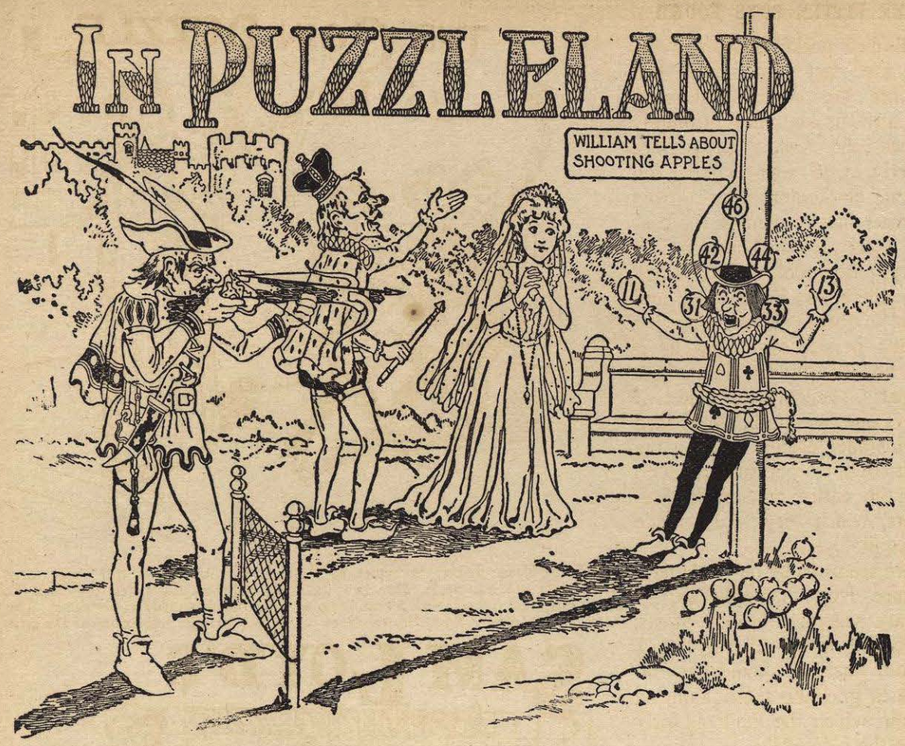
Why are your nose and chin at variance? Because words are passing between them.

Why is a man in debt like a misty morning? Because he is surrounded with dues (dews).

Who was the first that bore arms? Adam.

What smells most in the drug shop? The nose.

IN PUZZLELAND



We are told that William Tell scored 109 points in the apple-shoot game at a distance of thirty-five yards. Can you tell which apple he must have hit, and what was the height of the flagpole on the top of which was placed Gessler's cap, which we are told William Tell refused to salute?

IN SEARCH OF KNOWLEDGE.

"I say, pa," began little Clarence Callipers, with the rising inflection of one who earnestly desires to acquire important information, "if—"

"Oh, I don't know!" replied his long-suffering sire wearily.

"You don't know what, pa?"

"I don't know the answer to the question you are about to ask."

"Why, you don't know what I am going to ask, do you, pa?"

"No, of course not!"

"Then if you don't know the question, how do you know you don't know the answer to it, pa?"

"Because I know I don't know! I don't know why it is that the more a man gets, the more he wants, and the more he wants, the less he usually gets, nor why so many men with big heads wear such small hats, nor any of the other foolish questions you always ask."

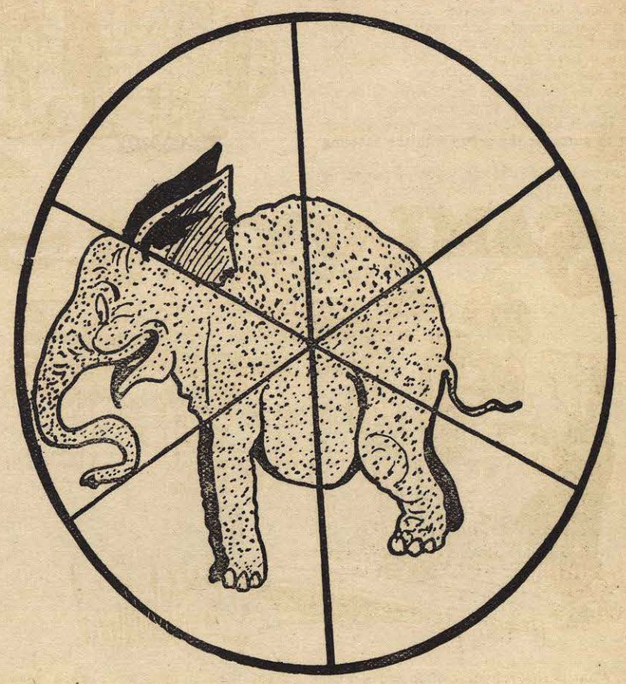
"Yes, sir. But the question I wanted to ask isn't foolish, pa."

"H'm! If it isn't foolish, you may go ahead and ask it. But remember, just one question and no more."

"Yes, pa. I just want to know, if five times four was thirty-three, how much would the fourth of twenty be?"

We would like to know how many readers can tell what reply papa should have given?

Here is an amusing novelty for the little folks. First cut the elephant into six segments then arrange them so as to show how he runs when he is in a hurry.



What animals are always seen at funerals? A.—Black kids.

What should a clergyman preach about? A.—About a half of an hour.