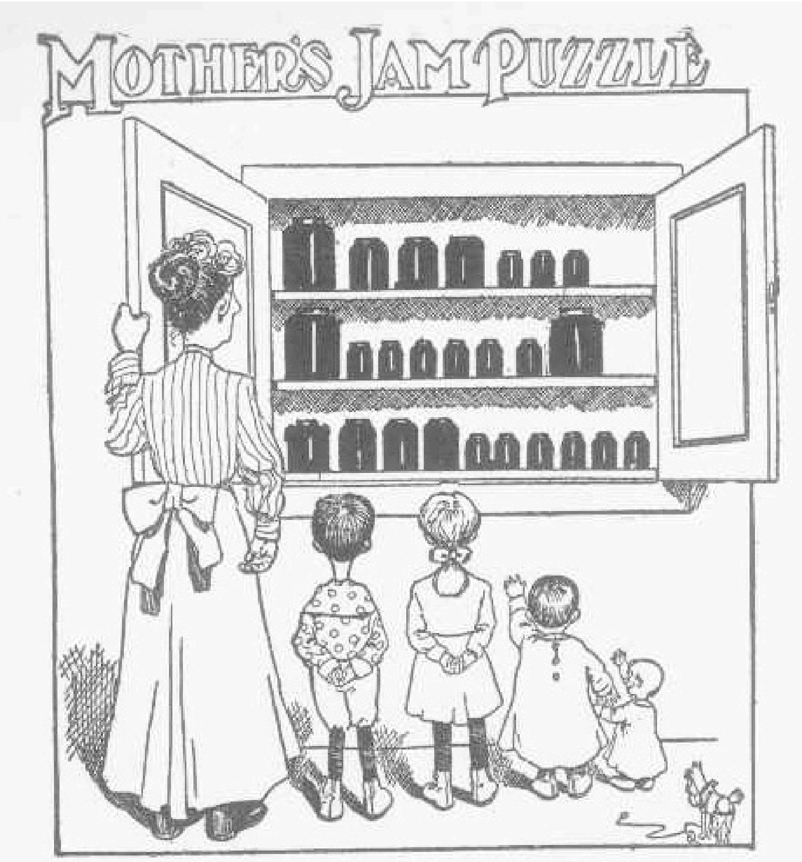
Sam Loyd's Problems (2)

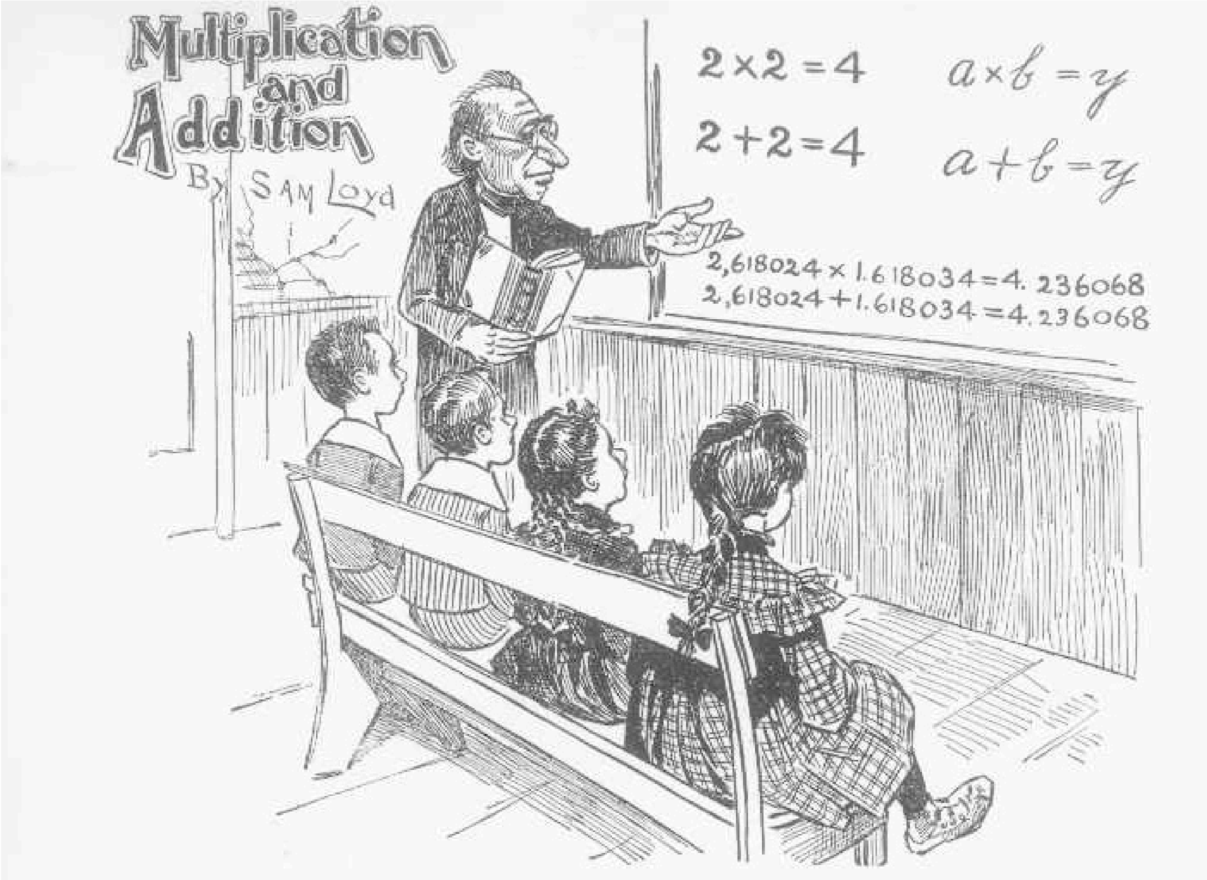
Problem # 1



Mrs. Hubbard has invented a clever system for keeping tabs on her blackberry jam. She filled twenty-five jars and arranged the three sizes so as to have twenty quarts on each shelf. Can you guess her secret so as to tell how much one of the big jars contains?

Sam Loyd's Problems (2)

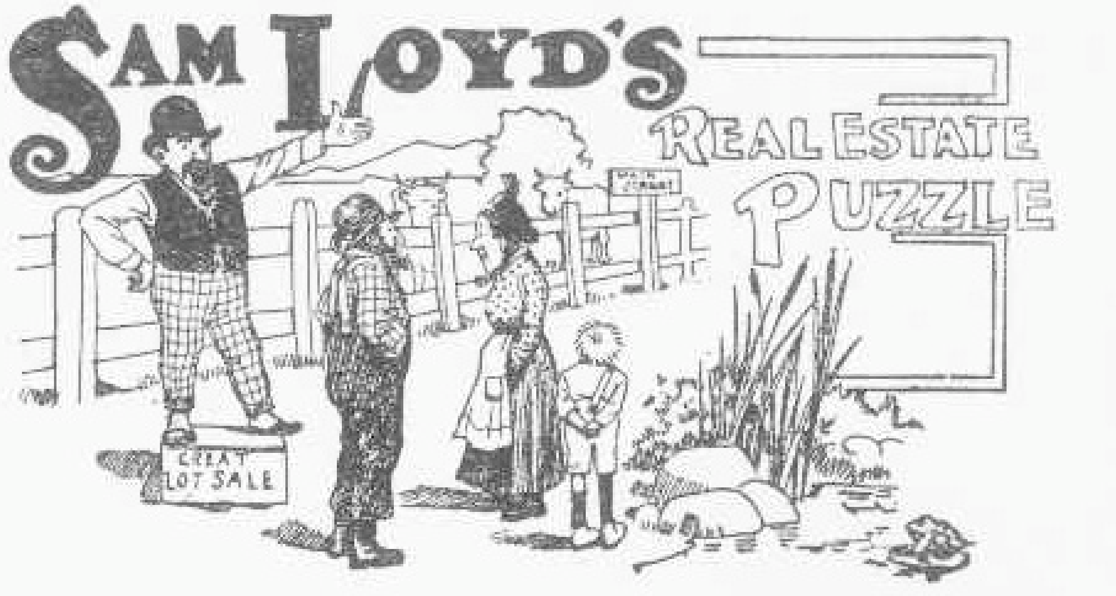
<u>Problem # 2</u>



PROPOSITION---Give different values for A+B and A×B=Y

Sam Loyd's Problems (2)

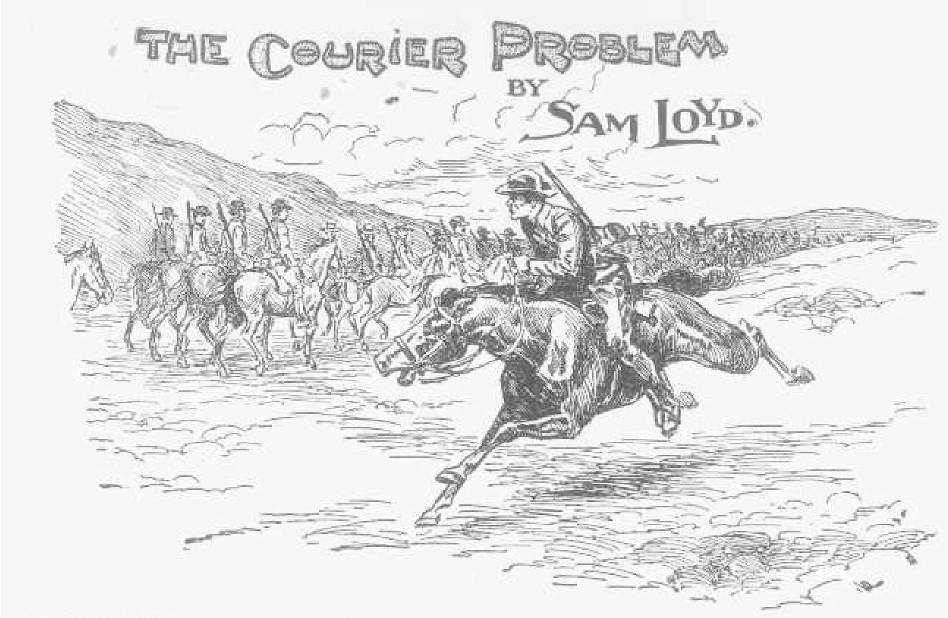
Problem # 3



While the suburban boom is on we will take occasion to tell how a real estate speculator stopped off at a wrong station, and, having a couple of hours to wait for the next train, made a quick turn. He bought a piece of land for \$243, divided it into lots, and sold them back to the original owners at \$18 per lot, and cleaned up the whole transaction before his train arrived. He made a profit on the deal just equal to his first cost price of six lots, so you are asked to tell just how many lots were laid out in the town of Boomville.

Sam Loyd's Problems (2)

Problem # 4



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.