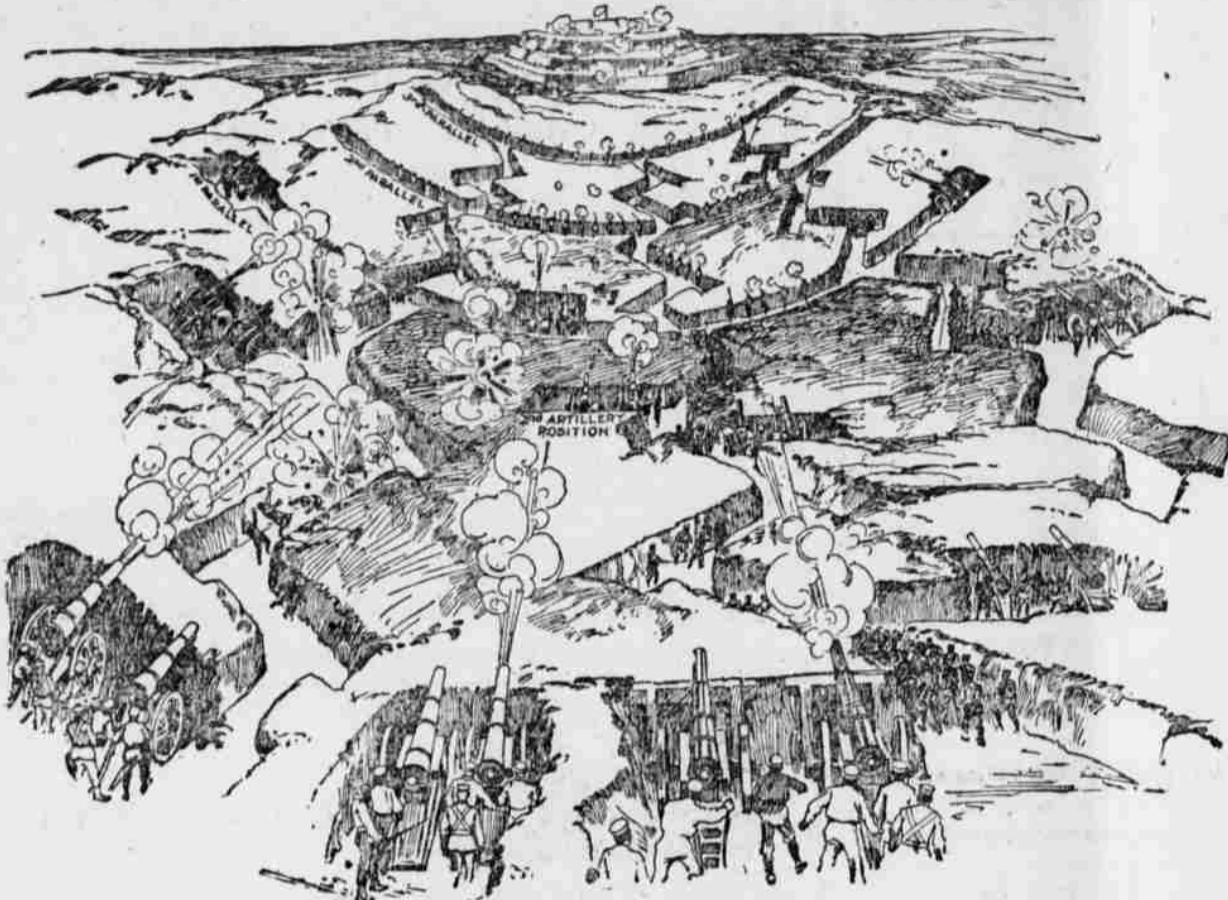


## METHOD BY WHICH JAPS REACHED WALLS OF PORT ARTHUR FORTS.



SYSTEM OF PARALLEL TRENCHES ON WHICH JAPS WORKED FOR MONTHS.

The picture shows a method of attacking a fort if high angle fire fails to reduce it. The irregular trenches leading to the parallels are dug so that they cannot be swept by the enemy's fire. The men dig the trenches under the protection of their own artillery. The parallels are for the protection of the storming parties as they approach nearer and nearer the walls. A "parallel" is a trench, often many miles long, which fronts the fortress. Supposing the army is 4,000 yards from the fortress. During the commencing bombardment this is called the "first artillery position." They want to move nearer and so they construct the "first parallel," perhaps at a distance of 3,000 yards from the fortress. But, in order that men and guns may move safely into this "parallel," approaches have to be cut—that is, a number of trenches leading from the first artillery position into the "parallel." These approaches run in zigzags, as, if they were straight, they would be open to the enemy's fire.

The way in which the "parallel" is opened is interesting. So soon as it grows dusk a number of officers, accompanied by sappers, move forward. Here they trace the lines which the parallel will follow. Each sapper has a picket and a measuring tape. The officer stations the first sapper at the end of the trench line, takes the end of his tape, and walks along until the tape is drawn out. At this point he places a second sapper, takes his tape, and walks to the end of it, and so on. The sappers drive the pickets into the ground, fasten the tapes to them, and lie down to await the working party. Later on the working party, with picks and shovels, arrives and sets to work with all its might. By break of day each man must have dug a trench 5 feet long, 6½ feet wide, and 4 feet deep, except the front eighteen inches, which is only one and one-half feet deep. The earth he piles in front to form a parapet. At daylight this trench will be occupied by a strong force, called the "guard of the trenches." But the work is not yet finished, for the following two nights are also devoted to digging, and when finished the trench is 10 feet wide at the bottom or more, much wider on top, 4 feet deep, having steps in front, and protected by a parapet of earth in front, which is about 4½ feet high. Behind this "parallel" protected places are formed for the artillery, another big job, seeing that thirty feet of earth, and probably more, is required to insure the safety of the guns. Finally, the last parallel is made, and the rush of infantry into the fort takes place.

### GOLDENROD.

When the wayside tangles blaze  
In the low September sun,  
When the flowers of summer days  
Droop and wither one by one,  
Reaching up through bush and brier,  
Sumptuous brow and heart of fire,  
Flaunting high its wind-rocked plume,  
Brave with wealth of native bloom—  
Goldenrod!

In the pasture's rude embrace,  
All o'errun with tangled vines,  
Where the thistle claims its place,  
And the straggling hedge confines,  
Bearing still the sweet impress  
Of unfettered loveliness,  
In the field and by the wall,  
Blinding, clasping, crowning all—  
Goldenrod!

Nature lies desheveled, pale,  
With her feverish lips apart—  
Day by day the pulses fall,  
Nearer to her bounding heart;  
Yet that slackened grasp doth hold  
Store of pure and genuine gold;  
Quick thou comest, strong and free,  
Type of all the wealth to be—  
Goldenrod!  
—Kansas City Journal.

### AMARANTH'S INVESTMENT.

TROUBLE began for Amaranth Brooke when she decided to buy back the ramshackle old family homestead with the few hundred dollars that had been left to her by a distant relative. But there were her brother's wife and children to provide a home for, and when Amaranth made up her mind she cared very little whether people approved of her plans or not.

She did care, however, what Sylvester Smalley would think of the matter, for since she was engaged to him it would be only right to tell him what she meant to do.

Amaranth had been looking over her prospective purchase and was on her way home, when he overtook her and at once broached the subject.

"No use to throw your money away on that old rubbishy place," he told her. "You can't raise a crop there, and I wouldn't take it as a gift. An' your money, with what I've got, would build up a nice, snug house on that forty acres father gave me, an' help to stock the farm beside. Then we could be married and go right to house-keeping. Will you, Amaranth?"

They were loitering slowly homeward and had paused at the old stile, where a scarlet-towered trumpet-vine showered its gorgeous trophies at their feet.

"Say yes!" urged Sylvester. Amaranth felt her determination weakening.

"But—but there's brother Reuben's wife and the children!" she faltered. "They are quite destitute, and have no one to look to but me."

Sylvester frowned. "Let Reub's wife look out for herself," he returned gruffly. "I dare say there's orphan asylums in the city where the young uns would be took care of."

Amaranth's eyes flashed scornfully at him as she drew herself up with offended dignity.

"Brother Reuben's children shall never go to the asylum while I live," she declared indignantly.

After a few more words their throats were broken. Sylvester stalked moodily on his way, while Amaranth, with a pang of sore disappointment at her heart, turned toward the gray stone farmhouse, where she earned a small stipend over her board by doing the housework for a family of six.

The broken engagement offered fresh food for gossip among the Brooke and Stubblefield kith and kin, but Amaranth was not to be turned from her course by their outspoken censures and criticisms.

The old homestead was bought and paid for. To be sure the soil was rocky and sterile, and the dwelling in need of repairs.

The orchard trees—what were left of them—were gnarled and bent, and the fences and outbuildings in a sad state of dilapidation.

It was really scarcely worth the small sum asked for it, but Amaranth had determined to buy it, and buy it she did.

An ancient cow and a half-decrepit pony were included in the sale.

And after the house had been treated to a few repairs and a thorough cleaning, brother Reuben's family were released from their uncongenial quarters in the city and comfortably installed therein.

Mrs. Reuben—a meek little woman, with no more ideas of supporting herself than a canary bird might have—was yet a good housekeeper, and willingly undertook the management of domestic affairs, while Amaranth gave her attention to the raising of poultry and garden vegetables. And the children grew as round as butter-balls, romping under the gnarly old apple trees or playing hide-and-seek among the tall sunflowers and hollyhocks that nodded in the dooryard.

Later on, Amaranth earned a few dollars each week by the sale of her produce at the little village of Pineyville Center, which was scarcely a stone's throw from her back pasture bars. But with all her industry and economy she found it a hard matter to provide for herself and the helpless ones depending on her, and there were times when she really feared the wolf was already at her door.

Sylvester Smalley took particular pleasure in driving past the house, with Nancy Maria Stubblefield, to whom he had transferred his attentions, seated beside him in his spring buggy.

But no one offered a helping hand, and Amaranth was beginning to feel a tremor of despair when something happened which no one—certainly not Amaranth—had ever dreamed would come to pass.

It was nothing more nor less than the building of a branch railway from the "Ozark lead and zinc" mines to a point on the Mississippi River some twelve miles beyond Pineyville Centre.

The nearest route, according to survey, lay directly across one side of Amaranth's estate, and she readily accepted the offer of \$200 from the mining company for this small portion of her "worn-out" farm land.

But the tide of prosperity did not stop here.

Roger Allen, the young surveyor, who had laid out the new railroad, suggested Pineyville Centre as the most convenient point for the smelting works to be erected by the mining company.

And so the sleepy little village waked up one fine morning to find itself in the midst of a most unexpected "boom."

Amaranth, though offered a high price, refused to part with her property on any terms. By the advice of the young surveyor, however, she was induced to lay out a portion of her farm, fronting the railroad, in town lots, which were eagerly purchased at a satisfactory valuation, and the "Brooke addition" soon ranked as the most desirable residence portion of Pineyville Centre.

And Amaranth found herself, if not wealthy, at least comfortably situated.

A stout hired farm hand attended to the farm work now. The worn-out meadows and cornfields were redeemed from their impoverished condition. The antiquated cow was supplanted by a small herd of Jerseys. The decrepit horse was "poisoned off" on the fattest of pastures, while a span of "matched bays" drew the new carriage when Amaranth or Mrs. Reuben and her children took an airing.

The discomfited relatives, who had all but boycotted Amaranth in the dark days, now discovered that "blood was thicker than water" and hastened to make friendly overtures.

And Sylvester Smalley, who had not yet succeeded in building on the paternal forty acres, abruptly ceased his attentions to Nancy Maria, and cast longing eyes toward the thrifty corn fields and well filled barns of the old homestead.

Long since had he repented of his shortsightedness, and after some skillful maneuvering he one day succeeded

in meeting Amaranth face to face at the old stile.

She'd a rose in her bonnet, and oh! she looked sweet  
As the little pink flower that grows in the wheat.

And Sylvester felt that he must win her at all hazards.

He advanced smiling and with outstretched hands.

"Did you really think I meant to give you up, Amaranth?" he asked, reproachfully.

But she drew coldly back. "Give me up? Certainly! You gave me up long ago," she returned.

"But I didn't mean it! I—I own I was a fool, Amaranth," he stammered, desperately, "but I allus intended to come back an' marry you. An' 'tain't too late yet. Only name the day, an' I'm yours."

But Amaranth smiled as she glanced beyond him to a tall figure which was rapidly approaching them.

"Very much obliged, I'm sure," she replied, demurely, "but I have promised to be Roger Alden's wife, and the day is already named. Here comes Roger now. Will you stay and be introduced?"

But with a disappointed scowl, Sylvester slunk away.—Chicago Journal.

### WORKMAN WHO CHEATS.

Dribble He Represents in a Business Is Worse Than a Wide Leak.

An employer of thousands of men was asked what thing in all his large operations gave him the most concern. "The man who does a little less than is expected of him," was the reply. "He is the dangerous factor in all business. The absolute failure we readily discover and discharge, but the 'almosts' escape detection for months and often for years, and they make our losses as well as our fears," and with a very serious smile he added: "The drip in business is worse than the leak."

It is a condition that is as old as human experience. Eighteen and a half centuries ago Seneca put it in these words: "Some portion of our time is taken from us by force; another portion is stolen from us; and another slips away. But the most disgraceful loss is that which arises from our own negligence; and if thou wilt seriously observe, thou shalt perceive that a great part of life flits from those who do evil, a greater from those who do nothing, and the whole from those who do not accomplish the business which they think they are doing."

Thousands of men fancy they are fulfilling their duty to their employers and to their tasks by keeping hours and performing just enough to hold on to their positions. They have an idea that to do more would be to give larger service than their compensation required. They object to what they believe would be extra values. "The old man shan't get more than he is paying for," is the vernacular.

Possibly it never strikes these trimmers that in cheating their work they are doing double damage; they are injuring their employers much, but they are robbing themselves more; they are in fact losing everything in life that is worth while. They fare worse than if they did nothing at all, for time with all its precious values slips entirely from them and leaves no substance or satisfaction.

Half doing soon brings undoing. It is the nine-tenths doing or the ninety-nine one-hundredths doing that bleeds business and saps character.—Saturday Evening Post.

### Ladders a Mile Long.

Theodore Waters, describing in Everybody's Magazine the deepest copper mine in the world, writes:

"Under the law it is necessary to maintain ladders in all mines, however deep, so that in case of accident to the hoisting machinery the miners may be able to climb up.

"These ladders, in a mine a mile deep, were distinctly awesome. The shaft was covered, but the trapdoor was removed so that I could peer down the hole. The first few rungs quickly succeeded one another into darkness, but a moving light far below showed that they continued on down below the limit of vision. The light came from a lamp in the hat of a workman probably making repairs, but whether it was 100 or 1,000 feet down was impossible to determine. It was not exactly a reassuring sight. The idea that the man was climbing a ladder a mile high, and the possibility of his encountering loose rungs in the darkness, invited my perturbed comment.

"Oh, that is nothing," remarked a workman. "It is not one ladder, but a succession of ladders, and there are plenty of fellows to rest upon. Why, the roller boys in the incline shifts often slide down the cables to save time."

### Plain Everyday Fellow.

"I am really and sincerely proud of the common people," said Mr. Pompos. "I am fond of the plain, everyday fellow who can never hope to be great. Call it Quixotism, if you wish."

"Oh, I wouldn't say that," interrupted Peppery. "I'd call it egotism."—Philadelphia Press.



A new vegetable for table use is the *Crambe tatarica*, an umbelliferous plant resembling sea kale. The sweet roots, raw and cooked, are eaten by Tartars and Cossacks, and for these and the sprouts also, it is recommended for cultivation by a prominent member of the Academie de Cuisine of Paris, who declares that it is finer in flavor than asparagus and cauliflower, which it suggests. The roots are boiled in salt water and seasoned in butter, a salad of young leaves and slices of roots being another dainty luxury.

Additional particulars about the new species of white potato, which is now cultivated in France from plants found in Uruguay, indicate that its importance as a substitute for the Irish potato has not been exaggerated. Originally a very bitter tuber, the new vegetable becomes, after three or four years of cultivation, an admirable food product. Its yield is enormous, and it is exempt from the maladies that attack the ordinary potato. It grows best in moist soil, its native habitat being the marshy shores of the River Mercedes in Uruguay. Its flowers have a jasmine-like odor, and a delicate perfume has already been extracted from them. After one planting the plant perpetuates itself from the broken roots left in the soil.

Recent advances in the price of shellac, due partly to its use in electrical works and in making gramophone records, have led to the collection of facts about its production. Lac is an incrustation on the branches of certain trees in India caused by insects. It is found throughout India, but is most abundant in the Central Provinces, Bengal and Assam. It is collected by natives, who break off the incrustated branches. The gatherers and local dealers sell it in the form of "stick lac" to manufacturers, who turn it into the shellac, or "button lac," of commerce. Nearly the whole of the shipment takes place from Calcutta, and the chief markets are the United States and Great Britain. In India lac is made into bracelets, rings, beads and other ornaments.

The apparatus by which Dr. Arthur Korn, a German inventor, has succeeded in transmitting photographs about 500 miles over telegraph-and-telephone-lines depends for its action upon the changing electric resistance of selenium under the influence of light of varying intensity. A ray of light, caused to pass systematically over the surface of a transparent film containing a photograph, falls upon a selenium cell whose electric resistance varies with the amount of light passing through different parts of the photograph. These variations are transmitted to the electric wire and at the receiving end they vary the illumination of a small vacuum tube, which passes over a sensitized photographic paper synchronically with the ray of light moving over the film at the sending station. Thus a copy of the original photograph is produced.

Although the problem of color photography is still far from solved, progress is being occasionally made. A new German discovery—that of Dr. Koenig—relates to printing from tri-color negatives, and depends upon the use of paper coated with collodion solutions of colorless compounds of greenish blue, cherry-red and yellow dyes that develop the original colors on exposure to light. The set of three negatives is first made under the usual light filters. The printing paper is first coated with the solution of the dye that is changed by light to greenish-blue, and, after drying, it is exposed about thirty seconds under the negative taken through the red filter. When the required depth of color is reached, it is fixed in a solution which removes the unaltered dye compound. The paper is then recoated, this time with the collodion for the red print, and exposed in exact register under the green negative. After this is fixed the third coating is made, and the yellow image is developed under the blue negative.

### By Wire and Air.

An accidental experiment in the velocity of sound is recounted by a correspondent. He went to his telephone, and just as he put the receiver to his ear he heard the click of another telephone. Another receiver had been removed and the line was open.

Then he heard through the telephone the shriek of a locomotive whistle, and a few seconds later the sound came through the open window in the usual way. Looking up, he saw a locomotive half a mile away, passing the house of a friend.

The mystery was solved. The telephone that was open was that at the distant house, and the sound of the whistle had come through its transformation into an electric current quicker than it had traveled through the air.

A widower can start a new story on himself every day in the week, if he wants to.