MARTHA SPEAKS.

(By Request.) (In reply to "Mary Speaks.") Mary's house is gray and dusty. (Mary's plump and fair). All unchecked the sunbeams chase the Cobwebs everywhere. Mary's in the orchard, trusting Some one else will do the dusting.

I would like to sit with Mary, By the leaping brook, But she left the baby with me. And, with sunny look, Murmured: "Since you're working, dear, I will just leave Johnny here."

How I wish my tired husband Could run out and play, But he'll have to rake and hoe and Plant, for yesterday Mary's husband's chickens' scratches Left our onion bed in patches.

Mary's husband's in the meadow, 'Neath the singing trees. Mary's husband's cow is resting On our radishes.

So they're all as snug as can be-Mary, husband, cow and baby, In this world of many women Always there will be Marys, who wil let the Marthas Work unstintingly, Knowing they are safe in trusting. Some one's got to do the dusting!

CONTRABAND.

-Vilda Sauvage Owens.

When John Norcross stepped from the door of his tent to begin the preparation of his supper his attention was attracted by a thin column of smoke rising apparently from the distant

"Must be a launch ashore in that cove," he concluded after studying the smoke for a moment.

Norcross had ridden south from Monterey for a week's trout fishing. His camp was pitched in the wildest region of the California coast. South of the Bay of Monterey for a hundred miles extends a district devoid of trails, wagon roads, and inhabitants. None but occasional hunters, or fishermen, travel the broken coastline.

The region's innumerable coves and inlets, however, offer shelter and cruising grounds to the fishing fleet from the ports to the north and south. The bulk of this fleet consists of Chinese-manned launches, outfitted with he found that he could not release divers and air-pumps, engaged in gathering abalones from the shoals.

It occurred to Norcross that a supper of abalone would be a welcome variation in a fare of bacon and trout. The launch in the cove would no doubt have plenty of shell-fish. The cove was not more than a mile distant; the ten feet above the sandy floor. day was still young. Without further thought he dropped his ax and set out In a few trials the captive disc

plain. The descent to the cove from into the darkness. the edge of the plateau, a distance of

Norcross had traveled scarcely half the mile between his camp and the cove, when, much to his astonishment he discovered that the smoke did not rise from the beach below the bluff. It came instead from the bottom of an arroyo at a point all of a quarter of a mile inland from the edge of the bluff.

"Who in the world can be camping down there?" he asked himself. His suspicions were aroused. Nearing the arroyo, he fell upon his hands and knees, and crept through the brush to the brink. Pushing aside a manzanita bush, he peered down.

Thirty feet below him sprawled a dozen Chinamen about a kettle of steaming rice. Norcross understood at a glance. He had stumbled upon the hiding place of a band of illegally-landed Chinese.

It is a common story along the California Coast that a traffic in coolies exists between the Mexican ports and the California China-towns. The Chinese fishermen, it is said, run an "underground railroad." It operates thus: Coolies are landed from Mexico in out-of-the-way places along the coast, and smuggled by their Americanized countrymen, as opportunities afford, into the interior cities. The region of Monterey Bay is the center of the traffic. Norcross thought of these tales as he studied the group.

Three of the Chinamen were plainly Americanized. They wore the western dress from the soles of their American-made boots to the tassels of the knitted fishermen's caps on their queueless heads. The rest of the gang appeared more foreign. Their heel-less slippers and loose jackets were not made in the United States. All were unconcernedly plying their chopsticks, smoking and chattering.

The surprised youth ran his eyes up and down the arroyo. It showed evidence of having been used by more than one party. The sandy floor was strewn with a litter of bottles, boxes and cans. At its lower end, under the overhanging of the sandstone wall, opened the low mouth of a cave. His curiosity at a high pitch, Norcross leaned farther out over the edge of the arroyo, in order better to examine the cave.

Then something happened. The loose soil, at the edge of the arroyo, gave way. He tried to throw himself back but failed. Enveloped in a tiny avalanche of sand, he slid, rolled and bumped head foremost down the bank into the midst of the coolies.

A bomb dropped from the sky could not have startled them more. With wild, Oriental yells of fright, they sprang to their feet and scattered up and down the arroyo, overturning kettles and pans in their haste. The three in the fishermen's costume, alone held their ground.

The intruder lay quiet. The breath had been knocked from his lungs; his eyes, ears and mouth were filled with sand. After a moment he attempted about to turn away when a gleam of rock. A wild fear that he had stumfaithfully at work, the youngsters able when cheerful to rise. Then, as if his move had been metal caught his gaze. From beneath bled into a blind alley-way came over played about the yard. The elephant or office, or shop.

forward yelling, and fell upon him.

Norcross fought, twisted, squirmed, too greatly against him. The Chinese knob ran a small hole. were powerful men; they bore him to "An opium pipe!" he exclaimed, the sand, and flung him upon his back. Two of them held his limbs, while the third brought a stout cord, and bound scuffle, either," he added. He slipped his ankles and wrists. In less than a the pipe into his pocket and set about minute the trick was done. The cool- encircling the vault. ies, jabbering and chattering, now gathered about him.

"What you want? What fo' you come this place?" demanded one of

small-pox pits. "Just happened in to pay you a vis-it! You sabbe visit?" replied Norcross a deal more lightly than his real

feelings warranted. The Chinaman of the scars turned to his gang, and chattered shrilly. At the moment, the bank above, unstable entered the vault. from the fall, again gave way. The coolies scattered a second time. Plainly they feared an attack. Their fright and even. It was broken into little would have been ludicrous to the cap-

tive had his plight been less serious. In a moment, no more strangers unceremoniously appearing, the coolies gathered courage again. The leader now and again in the darkness. His gave an order to the two in boots and knit caps. They climbed from the arroyo and disappeared. At another command three Orientals came forward; picked up the captive by the shoulders and heels, carried him down the arroyo and into the cave. A dozen feet inside the entrance they dumped him on the sand and retired.

When the shuffle of their sandals somewhat dazed from his fall, and its subsequent happenings. He could scarcely realize the situation.

One thought comforted him. He was sure that whatever his captors' ultimate intentions were, they would leave him alone for the present. He felt certain that the coolies believed him to be one of a posse that had discovered their hiding place. Two of them had left the arroyo to reconnoiter. They had put him out of the way of giving an alarm. But when they learned the truth, when they discovered that he, alone, had stumbled upon their secret—well, he hardly dared to think of what might then happen. He knew the Chinese character well enough to feel sure the smugglers would hesitate at nothing where their

secrets were concerned. He struggled at the cords that bound his wrists until they cut into his flesh. Giving over this folly when himself, he set about exploring his

In the faint stream of daylight from the entrance the cave appeared to be a narrow, straight-walled tunnel. The roof, as nearly as he could tell, was tunnel seemed to run back into the

thought he dropped his ax and set out through the chaparrel toward the sea. In a few trials the captive discovered that he could crawl after the fash-From no point on the plateau was the cove itself visible. It lay sheltered at the foot of a perpendicular cliff forming the seaward boundary of the est wall he worked awkwardly back

The floor of the cave sloped gradua hundred feet, was possible only by ally downwards. Now and again its proaching light flickered and waversmooth surface was broken by a short

or deep fissure. It flashed into his mind before he had gone many yards, that this cave in position. was nothing more nor less than a subterranean stream-bed. This being so mined to find it.

Suddenly be became conscious of a change in the tunnel. The wall had bent abruptly away from him; the bringing to his nostrils the character- ground, shuffled by. istic odor of things Oriental, that indescribable smell which attaches itnext move brought his hands in conid, and the size of a carpenter's tool chest.

A moment's fumbling over the box discovered to him a heavy padlock and a lid reinforced with narrow, iron straps. The broken end of one strap had sprung out from the lid.

an idea. He bent the iron to an up- directly opposite the fissure he glancright position, placed his wrists over ed up. He saw the youth. It would the broken end and began sawing the cords across the dull edge.

It was slow work, but in a minute or two the cord frayed and parted. He ed into each other's eyes. Then with unwrapped the ends with his teeth; a loud yell the Oriental reached a cent. increase of the preceding two his hands were free. Remembering a hand to his pocket. In the same inbunch of matches in an inside shirt stant Norcross swung the heavy pipe, pocket, he struck a light.

The tiny flame disclosed a highceilinged vault, about the size of an nel with darkness. ordinary two-story house. Along one wall ran a row of wooden bunks, nearby them, a low table, littered with cooking utensils, and close to the ta- stung his cheek and the report rang ble a kerosene stove. Scattered about deafeningly in his ears, but the bullet the floor were odds and ends of ship's flattened itself out on the rock behind stores, pieces of bamboo matting, him.

scraps of sailcloth, and ends of rope.
"Regular Chinese boarding house!" exclaimed the explorer. "No wonder the place smells queer!" He struck a second match and held dashed down the passage.

the flame to the cord about his ankles. A third and fourth match finished the job. He untwisted the charred ends and stood upon his feet.

He felt confident of escaping now. Should he find no other way out, he determined to slip back to the arroyo had at last discovered his esdetermined to slip back to the arroyo rape. They were coming in full cry. and watch his opportunity to dash out, and past the coolies.

First, however, the cave was to be explored. Several matches enabled to be taken. He knew that unless he him to examine the vault closely. It discovered the outlet within a very had not been occupied for some time. few minutes his chance of ever escap-Evidently the smugglers used it in bad | ing would be very small. weather only, or at times when they

feared discovery. Norcross peered about the table and shelves for a candle or lantern, but let. All at once his path was blocked. neither was to be found. He was He had bumped heavily into a wall of

striking wildly with his fist and foot, bringing to bear all the strength of with a brass knob the size of a door angles. his twenty years. But the odds were handle. Through the centre of the

weighing the heavy knob in his hand.
"Wouldn't make a bad weapon in a

Half way round, a puff of air ex- he hastily scrambled up the pile to tinguished his match. But before the the hole, the voices of the pursuing light vanished it disclosed a strip of Chinese came down the tunnel to his come this place?" demanded one of the three, who seemed to be the leader, and whose face was hideous with it aside. A current of air, cool and damp, struck his face; the faint, distant voice of the sea rang in his ears. The matting had been hung to cov-

er a narrow passage-way. He step-ped through the crevice and was in the tunnel again, a continuation of the

The passage still sloped downwards, but the floor was no longer smooth hillocks of gravel, and treacherous pot-holes. Keeping one outstretched hand lightly against the wall, Nor-

few remaining matches he thought

best to save for emergencies. His sense of direction told him that he was traveling toward the ocean and with each step the faint murmur of the breakers seemed to grow louder. Somewhere, not far distant, he felt confident the ancient stream-bed opened upon the sea. As nearly as he could tell he had come almost a quarhad died away Norcross made an ef- ter of a mile from the arroyo. The fort to collect his thoughts. He was end of the passage should thus bring him out somewhere near the foot of the bluff in the cove.

From far down the tunnel came a gleam of light. The opening! He wanted to shout. Then his confidence gave way to doubt. The gleam was not daylight. It was too yellow for that. Moreover it seemed to be moving. He tried to tell himself differently, but in his heart he knew that some one carrying a lantern was approaching.

He peered down the tunnel, his nerves on edge. A faint sound of voices came to his ears. In a moment he distinguished the sing-song cadences of Chinese tongues. The sound carried up to him as through a speaking trumpet. His hopes sank. The smugglers held both ends of the tunnel!

But his despair did not last. It occurred to him to retreat to the vault, and to hide in some of the nooks and crannies. Then he thought of the coolies in the arroyo. Time was pressing. They might discover his escape and raise the alarm at any moment. He remembered that a few yards

back he had fumbled over a deep perpendicular fissure running from the floor to a point higher than his head. It was just the place. He would hide in the fissure until the approaching coolies went by. He felt his way The crevice was large enough and

to spare. When he had backed within it, its edges projected several inches

He had scarcely settled himself before the shadows thrown by the aped upon the opposite wall. He felt pitch of worn rock, ending in a hollow basin, half filled with gravel. The walls of the tunnel were for the most walls of the tunnel were for the most men were approaching. He was confiwalls of the tunnel were for the most men were approaching. He was confi-part, smooth and even. Occasionally, dent that even should they discover however, he crawled by a jutting point him that he should get by them. He would not be captured again. He took the pipe from his pocket and held it

The tunnel grew brighter. Indeed, it seemed to be growing fearfully he thrilled at the thought—the bright. He began to regret that he drain must have an outlet. He deter- had not followed his first impulse of retreating to the vault. Discovery began to seem inevitable.

But it was too late now to move The sound of footsteps in the sand place had a feeling of spaciousness. A was very close. A lank, stoopshoulfaint current of air fanned his cheek, dered Chinaman, his eyes upon the

Norcross almost gasped. The fellow was one of the three that had self to the Chinese dwellings. His overpowered him in the arroyo-one of the pair who had left immediately tact with a wooden chest, heavy, sol- afterwards to reconnoiter. They were returning through the tunnel! Here comparative potato yields for good was proof, indeed, that the cave had an outlet.

The second Chinaman carrying the lantern, was but a few feet away. Norcross shrank back into the fissure. It was now or never. The next instant The feel of the metal gave birth to the fellow shuffled into sight. When have been impossible for him not to. Instantly he stopped and raised his lantern. For a moment the two starsmashing the up-raised lantern into showers of glass, and flooding the tun-

It was well for him that the blow went home. Almost simultaneously with it a gun flashed. The powder

Norcross did not wait for a second shot. Springing forward in the dark-ness he knocked the Oriental backwards against the opposite wall and

Scarcely had the echo of the shot and the yell of the coolie died away before, to the ears of the fleeing youth, there came a far-away clamor from the tunnel behind. The Chinese in the

He hastened his speed. There was no time now to feel his way. He stumbled time and again, but this risk had

The tunnel seemed endless. Was there no end to it? He knew that he could not possibly be far from the out-

a signal, the three fishermen sprang a sheet of dirty matting upon one of him. Then a tiny patch of daylight that attracted the Frenchman's attenthe bunks he hauled forth a two-foot in the roof, a hundred feet to his tion was hauling, in her chain harness, bamboo pipe, fitted at one end with an right, solved the puzzle. The tunnel huge tree trunks from the bank of the had turned sharply, almost at right

> Thrilled with the glimpse of daylight he hastened forward again, and a moment later stood at the foot of a great pile of debris that completely blocked the tunnel. In the roof near the top of the pile—the result of a landslide—was a small aperture through which the light streamed. As

> He drew himself through the opening and found himself upon a narrow ledge at the head of a short gulch running down to the beach. Fifty feet below him a gasoline schooner lay at anchor in the cove, its deck pil-ed high with abolene shells. Beyond the cove lay the open sea, flooded in the colors of sunset.

> He looked at the schooner a moment; then picked his way down to sand when, with loud yells of disappointment and rage, the Orientals poured out of the hole to the ledge above like a swarm of angry bees.

A rifle cracked; the bullet spattered in the sand near his feet. He broke into a run for the shelter of the rocks south of the cove. A half dozen bullets struck about him before he was out of range. The Chinese gave up. to Domingo comes the Spanish wood, It was getting dark. They made no attempt to hunt him out of the rocks.

Several hours later he tramped down the beach, ascended to the plateau and circled back to his camp in the moonlight. By sun-up he was in the saddle and bound out to the near-

est telephone. Three days later a posse of United States marshals raided the cave and the cove, but secured nothing more than incriminating evidence for their trouble. The Chinese had flown, and they never came back.

Norcross treasures as a souvenir of his adventure a bamboo opium-pipe, which hangs above the fireplace in his den.—The Boys' Magazine.

THE AUTO-LOCOMOTIVE.

The auto-locomotive has arived. It is the invention of John F. Kehrman, of Bonne Terre, Mo., and is designed for travel on railroad tracks.

It may be built for the purpose, or an ordinary touring car can be made to serve, with suitable constructional modifications. Inside, it is arranged as a business car or sleeping car. It may take the place of steam locomotives on branch lines of steam railroads, or may be used for tours of in-

The machine is driven by the rear wheels, the power of the engine being transmitted to the rear axle by the ordinary drive shaft.

At the front is a cowcatcher, and mounted upon and above the latter is fits are made up from there. a screen of wire net in a rectangular wheels are attached to a separate frame which is pivotally connected to the frame of the car. This arrangement enables the machine to travel at high speed around sharp curves, much in the same way as a wagon can turn

corners without danger of upsetting. An air-pump, driven by an engine crank-shaft, operates airbrakes, blows the whistle and works the sanding mechanism. Power and foot brakes can be applied to all the wheels when

an emergency calls for a quick stop. The inventor claims that his autolocomotive, fitted with a high-power automobile engine, will run easily and safely at a speed of seventy-five miles

For the third consecutive year the 'show them how" class of Pennsylvania farmers have demonstrated that there is absolute truth in the use of "potato mentality" with regard to the use of disease-free seed for bumper potato crop production. Figures of seed over the ordinary home grown varieties, on 289 good seed demonstrations in 55 counties, were announced by Professor E. L. Nixon, extention plant disease specialist at The Pennsylvania State College school of agriculture. They represent last fall's harvest records and are of un-

usual merit. The good seed demonstrations showed an increase of 45.6 per cent. in yield over check growths of ordinary seed, which is almost double the per years. This is attributed to the extremely dry weather of last summer when the plants from disease-free seed showed ability to withstand the heat. The average increase per acre was 69.6 bushels, which at the rate of a dollar a bushel would give quite a little profit to the grower planting at the rate of 15 bushels to the acre. The average acre yield for ordinary seed was 152.6 bushels, and that for dis-

ease-free seed 222.2 bushels. Pennsylvania farmers have come to believe in Professor Nixon's "potato mentality" practice so thoroughly that over 100,000 bushels of disease-free seed have been bought for planting in practically every county in the State. Last year 48,000 bushels were bought and planted, potatoes that the college men or county agents had inspected and approved before shipment. Thousands of farmers will adopt this practice of planting the very best seed obtainable during the coming spring.

Teaching a Baby Elephant Manners.

Elephants are surprisingly like human beings in the way they discipline their young. In proof, there may be an amusing incident witnessed cited by a Frenchman in an extensive lumber yard in Burma, where elephants are used to handle the heavy loads. While the adult elephants were

huge tree trunks from the bank of the river. She had a heavy load, a fact that her off-spring did not realize. Bent on playing a prank, he wound his little trunk about one of the chain traces and pulled back with all his strength.

Conscious of the suddenly increased weight, the mother suddenly stopped and looked around. She saw the youngster back there, and shook her head solemnly, but paying no further heed to his teasing, bent again to her work. Meanwhile, however, the little rascal with his mischievous trunk had loosened the ring that fastened the traces to the load.—Ex.

MAHOGANY TREES.

The mahogany tree is something of a recluse—at least, it has a solitary habit of life—and likes to stand rearing its head above its lesser neighbors. smaller trees and dense undergrowth ment; then picked his way down to of tropic forests. There is no such the beach. His feet were barely on the thing as a forest of mahogany. It is not found in groves or clumps, or little group of settlements within the appreciate; it offers better opportuwoods. In the region where it is found at its best there will be, perhaps only one or two trees to the acre.

Two broad classifications are generally used for this wood in commerce -Spanish mahogany and Honduras mahogany. From the Island of Sanrichly colored, solid and heavy. It is famous for these points and the rich wavy figuring brought out under polishing, as well as for the high polish which it will take. Cuban mahogany is also classed as Spanish, although the wood is slightly inferior. It is solid to the touch and is distinguished by the tiny chalk-like white specks in the

Honduras mahogany is lighter, lacking the figuring and the curl of the Spanish wood and is open of grain and rather uniform in color. Little black specks or lines in the grain of the wood mark this variety. Its color is often artificially deepened by the application of alkalis and this is especially true of the lighter colored Honduras mahogany. The trees grow-ing near the Mexican border and in the northern part of the country, are more dense and solid than those found further south.

The mahogany tree, as a matter of fact, reaches its maximum dimensions it furnishes a timber which is firm, solid and richly figured.

The work of the mahogany lumbering outfit is thus described by John J. Birch:

"The personnel of a mahogany lumspects as a lumber camp in any Amerchief exporting city for mahogany, and for that reason most of the out-

"The methods used in harvesting frame to keep grasshoppers and other are exceedingly primitive, inefficient insects from striking the radiator and and relatively expensive. The cutting and leveled down, it can be worked obstructing the passage of air. Above begins in the Mid-summer, which is and sown earlier in the spring. There the front wheels is a sand-box, pro- the rainy season. The tree hunter, or will be a week or two difference in vided with a pipe for discharging sand the one whose duty it is to locate the getting in the crop if the plowing has it, its edges projected several inches beyond his shoulders. He felt that he beyond his shoulders. He felt that he had a fair chance of escaping discov- forward end of the auto-locomotive is in the outfit. His first move is to pick be sown as soon as the frost is out of the ground. carried by a four-wheeled truck whose out some elevated point and climb the the ground. highest tree and from there locate the mahogany.

"At this season of the year the leaves of the mahogany have turned a reddish yellow hue, while the other trees are green, thus making a decided contrast, visible for a long distance. After having carefully noted his bearings, he proceeds to locate the trees. From one to one and a half tons per This is by no means an easy task, for in most places the underbrush is so dense that it is necessary to chop one's

way through. The trees are large and spreading, with pinnate, shiny leaves. They range anywhere from 50 to 100 feet higs and are from 10 to 25 feet in circumference at the base, depending on their age. It is the custom to build DISEASE FREE SEED POTATOES. a platform, some 8 or 10 feet high, around the largest of the trees, for the reason that the trunks are greatly enlarged at the ground, but by so doing a great deal of the most valuable wood is lost, for it is here that the most beautiful graining and toughest timber is found.

"In felling great care is taken so that the logs will not split or break. The trees are then cut into convenient lengths to be handled and squared, so that they can be more easily stowed away in ships.

"By the time the dry season has begun, and while a part of the gang are engaged in cutting, others are at work preparing roads and bridges to enable the logs to be transported. The trucks used for hauling are twowheeled affairs, constructed on the spot, save for the axles and hubs, which are brought in by the lumber-

"Oxen are used to haul these improvised wagons. The work is done mostly at night, by the aid of pine torches, for the reason that it is cooler at that time. The logs are collected on the banks of the rivers and left there until June, when they are cut loose and allowed to float down stream.

"When they have arrived at their destination, each owner collects his logs, which are marked by certain marks on the ends. They are then prepared for export by cutting off any pattered ends or split portions. natives tie them together and them to the ships, where they are placed on board. This is a dangerous peration, for in rough weather many of the rafts are broken up and timbers carried out to sea.

"The vogue of mahogany, highly prized as it is for cabinet making and for furniture, is of English origin. A carpenter on Sir Walter Raleigh's ship is credited with having noted first the possibilities of the wood, being attracted by its hardness and durability as well as its beautiful color and grain.—Bulletin of the American Forestry Association.

-Dark days are possible in every month of the year, particularly in this climate. But they are always endurfaithfully at work, the youngsters able when cheerfulness rules in home,

FARM NOTES.

-The farmers who are suffering most from the present financial conditions are those who have over-specialized. The farmers who had some hogs, dairy cows and poultry weathered the storm in pretty good shape. Those who had a moderate distribution and diversification of crops suffered the least. Diversification of crops and livestock is what is needed. It is always good to have some sidelines to take up the slack. The ideal farm is one on which are grown a good variety of crops in regular rotation, and on which is found a good balanced assortment of livestock. Work out a system.

-Many farmers are more prosperous than they realize. There are very few of them in as unsatisfactory condition for crops this year as the business men of the country believe.

-Most farmers have more to eat, more feed, better shelter, larger number of marketable products, than they give themselves credit for having. The 1arm is more profitable than we believe; it affords a better home than we nities for comfortable living than we make use of.

-Ground feeds are more economical as a rule for cows. They eat grain very greedily and do not generally masticate it properly. Thus much of it passes out of the stomach undigested. This is especially noticeable in feeding corn and oats.

-A shovelful of wood ashes scattered around each currant bush and a handful on the crown, will serve two purposes—fertilize and prevent insects and disease.

-The clover or alfalfa plant is the cheapest and most effective subsoiling plow. It runs deeper than a steel plow, is self-propelling, and in passing leaves more tertility than it takes.

-The claim that too much manure will burn up the crop is only partly true. It may if it is a very dry season and the manure is not worked well into the soil. But there is little likelihood of injury from a heavy application, if worked in right. Far more corn has been lost through too little than through too much manure.

-Good onions may be raised in any soil that has successfully produced potatoes, corn or any vegetable crop. The muck lands, such as will be found in Mexico. In the upland Provinces throughout Pennsylvania, will give a better yield of onions, and with less labor than any other soil. But before such lands are fit they must be thoroughly subdued to get clear of weeds.

If kept clear of weeds it is a good "The personnel of a mahogany lumbering outfit is the same in many rethe same ground, as it would then become firmer, and the firmer it becomes ican forest, save for minor details. the better the crop will be, unless the Belize, in British Honduras, is the ground should be allowed to bake. Onions grown after celery are, as a rule, very successful, as the ground will be free from weeds and there will

be less labor in caring for the crop.

-The best complete fertilizer should be used, one that is about one to two of nitrogen, seven to eight of acid and eight to ten of potash. This should be varied in quantity according to the needs of the soil. A full crop cannot be expected when only a small amount of fertilizer is used. acre is a good rule.

Wood ashes are excellent in most soils, but generally they are not suf-

ficient to produce the best crop. The fertilizer must be evenly distributed over the ground or the onions will be spotted. Hand-sowing of the

fertilizer is not always satisfactory. From 500 to 800 bushels of onions may be grown on a rich, well-drained loam soil, but heavy clays, hillsides and stony land should be avoided. The attempt to grow onions on weedy or run-down land should never be made.

Cultivation should begin immediately as the young plants appear. A wheel hoe is very good for this purpose, as it loosens the soil on both sides of the row and throws it slightly away from the plants. Follow by hand-weeding, and, when necessary, thin out. The plants should be about three inches apart in the row, unless the soil is rich, when they will permit crowding. If the soil should not be sufficiently fertile, more fertilizer should be added to mature the crop rather than to thin, unless the plants should be altogether too close.

Whenever the weeds appear throughout the growing season, the crop should be hoed. Cultivation should be given every other week until the bulbs begin to form, when it may be lessened.

The stalks become weak just above the bulbs and topple over on the ground as maturity approaches. As soon as the majority of the tops have died down the crop may be culled, notwithstanding that some of the tops remain green and standing.

When harvesting, throw more rows together and allow to remain on the ground for a week or more to cure. It is best not to twist or cut off the tops until ready to store the onions, although it may be done any time before marketing.

-A lot of hard labor will be saved if the garden plot is so arranged that a horse and plow may be admitted. Objection is made by some to using the horse in the garden, but if the rows are planted far enough apart to permit proper cultivation, and the proper tools used, the horse will do better work and at less expense.

Good, sharp tools must be used. Deep plowing, cutting narrow furrows and cultivating with a good instru-ment drawn by a steady horse is far easier and better to keep the ground stirred and the weeds down than by walking up and down the rows, chopping, in the broiling sun.

-In 1919, Pennsylvania produced 7,184,096 quarts of strawberries and 851,606 quarts of blackberries and