

MYNHEER JOE.

BY ST. GEORGE RATHBORNE.

CHAPTER XX.

There is another factor in the game, however, which Sandy has not suspected. Knowing Mynheer Joe as he does, he falls to consider the full depth of that strange man's powers. Although the traveler has also produced a revolver and shows an entire willingness to use it should occasion arise, he still holds back.

There is a method in his madness. For Sandy thinks it borders on this, not to begin operations upon the enemy at once, so they may in a measure paralyze their attack.

Mynheer Joe knows what he is about. From his lips there suddenly issues a strange sound, unlike anything Sandy ever heard. It is undoubtedly a signal of some sort. His amazed eyes are glued on Joe. He sees him make a peculiar pantomime gesture with his hand—the one which has not been occupied in grasping a weapon.

This must mean something. Sandy knows it is not intended for him, and hence he turns his attention upon the enemy to discover a solution of the mystery.

Whether he can find this out or not, the effect of Joe's action is speedily manifest in the exclamations of the Thugs. He hears their exclamations of amazement, sees the looks of wonder which they cast upon the traveler. Instead of a forward rush to annihilate him and his friend, there is a shrinking back on the part of the thirteen.

What can this mean? Mynheer Joe continues to wave his hand in that strange manner, and the thirteen terrible faces retreat slowly but surely in every direction.

Sandy is forcibly reminded of a certain picture in the pantomime where the good spirit appears upon the scene and the evil workers retreat in dismay, endeavoring to shield their eyes from the dazzling light that nearly blinds them, for everything that is evil hates the light.

He is bewildered by what he sees, and yet, although the cause is a perfect blank, the effect is plainly evident—even he who runs may read: These Thugs fear Mynheer Joe.

Sandy's admiration for the man takes an upward bound. He realizes that such as he has known of the other. Joe possesses qualities which he has never even suspected as existing.

In less than half a minute after the traveler has uttered that strange sound the thirteen Thugs have backed out of sight. The coast is clear and gradually the people resume their interrupted trade relations—the merchant calls attention to his stock, the customer takes it upon himself to buy.

As the people come thronging back upon the road of the bazars it can be noticed that they cast anxious glances around them. They seem to expect to look upon something lying either or you—something that is apt to fill their souls with horror, and yet which possesses a deep attraction.

Sandy notes these glances cast around, and being a bright-minded man, intuitively guesses their meaning. They are looking for the victims of the Thugs, and upon failing to discover one or more bodies lying upon the road, with life rendered extinct through the agency of cord or creese, cannot but feel the greatest amazement.

Then their looks turn upon the two Americans, as though they have guessed that these worthies are the ones against whom this uprising of the secret society took place. It must have been some mistake, after all. Philosophically they determine this, and return to their various pursuits, though glances full of wonder greet Mynheer Joe and his companion at every turn.

As for Sandy himself he follows the other along the street in a half stupefied way. It seems to him Joe can do anything. If the Hindus were about to place them both upon one of the funeral pyres along the ghats bordering the river, Sandy believes Joe is wise enough to change the fire into tea, and cause the wretched destroyers to fall upon their knees in humble servitude. After this exhibition he will not doubt Joe's power to accomplish any wonder. So they pass along, and by degrees enter among a new lot of natives who, ignorant of the event that has so recently transpired, do not view them in that strange way. Sandy is burning with deep curiosity. By nature he abhors mysteries, and it is just as curious as any woman could ever be.

Plainly, then, he asks the W. Joe, begging to know by what spirit of necromancy the other managed to dissolve the dark clouds that hung so threateningly over their heads.

"It's all as simple as falling off a log. The whole thing lies in knowing how to do it," he remarks, whereat Sandy adds:

"A second Columbus making the egg stand on end? Suppose you illustrate matters, my dear fellow, and show us how the thing is done."

"Perhaps you saw me make a signal and the rascals obey. You would want that could mean. Truth to tell, Sandy, I am a member of the very organization which our unscrupulous enemy, the baron, has subsidized in order to complete our downfall."

At this intelligence the newspaper man loses his head and looks silly. His ideas become confused, and he wonders whether Joe is not giving him a little chaff. Up to the present he has believed himself too old a bird to be caught in this way, but such strange things have occurred of late that he stands ready to take almost anything as gospel truth.

"Oh, you're a full-fledged Thug, eh?" he manages to murmur.

"Not only that, but an officer in the organization. It was as such I gave the sign that threw these fellows into a fever."

"How do you come to belong to such a lovely crowd?" asks Sandy.

"Ah, my dear fellow, that is a story you shall hear some day! Really, it is worth telling, since it is founded upon strange incidents such as only a Haggard could see with credit. For the present let it suffice to say that this ancient order has more about it than the general world knows. It is not organized for murder, as you and other people believe, although the Thugs of India, like the Nihilists of Russia, do not hesitate to remove any one who runs against their will.

"A series of strange circumstances threw me into the midst of them some years ago, and to preserve my life I was obliged to join the order, attaining a high place of honor before the opportunity came to quit India's shores.

"I can now see very plainly why that same thing occurred to me, for you and I must have fallen victims to the fury of the mob only for my power."

"By the way, Joe, have you any more of these little bombs hidden away? If so, put them to good use, man. There's no telling when we may need them in this country. Bless my soul! I have a strange feeling all the while as though invisible danger was hanging over our heads. What can it mean?"

"When the baron ceases to annoy you you will get over that, Sandy. The truth of the matter is you have fallen into the habit of feeling his presence near you. These men of evil seem to exhale a something that impresses itself upon those they hate, even as might the rattlesnake when charming a victim. Once the serpent is trampled under foot and all that uneasiness vanishes."

"You've changed your mind, then, and intend to make away with the baron?" says Sandy, quickly.

"Well, it becomes more evident every hour that it's a desperate case of Greek against Greek. Unless I demolish the baron he will down me."

"Eureka! That's my policy to a dot. The question is how it shall be done."

"That will come out all right, old man."

"I give myself no uneasiness with regard to it. Poor old Popoff! He'll carry out the name to a letter presently. But since he's shown himself to be such a consummate rascal, I no longer feel pity for him. Let him go. The king has commanded it; the decree must be entered," and Sandy makes a royal sweep with his arm that would cause many a monarch to turn green with envy could he see it.

Mynheer Joe looks beyond, and sees things that a wise providence screens from the eyes of impulsive fellows of Sandy's stripe. He knows that the life of the baron is exceedingly precious to the Russian authorities, and that they will make a searching investigation into matters in case he is downed; it may even be considered a cause belli, and the two great countries be embroiled in a terrible conflict.

Thus Mynheer Joe, feeling the responsible nature of his position, resolves to do nothing rash. He desires to consult with some one who has a long head, and knows of no person more competent than Mr. Grimes. Sandy is all right, when it comes to action, but he does not make the best adviser in the world, as Joe has learned before now.

It is high time they turn their steps in the direction of the hotel, as the hour is getting late.

Through the crowds they pass without any fear of violence, since they hold the good will of the great secret society of India.

"Ah! There's the baron!" says Sandy. And Joe catches a glimpse of the Russian's face among the dark ones just beyond.

He reads surprise and baffled rage upon it, as though Popoff had already begun to understand that again his plans have been defeated by circumstances over which he has no control.

Mynheer Joe cannot help showing something of his feelings in his expression. The look is not a contemptuous one, for he has considerable respect in the direction of the shrewd baron. At the same time he despises a man who will descend to the methods practiced by this agent of the Czar.

If Joe chooses he can meet him on a level, and, employing the same methods, influence the secret order of Thugs against the Russian, for he has power behind the throne. This does not happen to be his way. If the baron will not enter into another duel with him he must employ some other honorable means for accomplishing his end. They finally bring up at the hotel. The hour is not so late for those who make day out of night, but with travelers weary from a long sea journey and sightseeing all day it is an entirely different matter.

All have retired, and Joe is compelled to let the matter lie over to the morrow or else wake Mr. Grimes. This latter he would be tempted to do, as he believes the case requires prompt attention, only that he remembers the pseudo silver king complained of a headache as well as a lame ankle.

So he determines to let matters rest until the morning. If all goes well he can then discuss the affair with clear brains and decide upon the best course to pursue.

The day dawns upon the city of Bombay, and, as is usual, all soon be-

comes bustle and confusion. As the hour grows nearer noon this enthusiasm will gradually die out and leave a sort of lethargy in its place, common to all warm climates.

Mynheer Joe is early on foot, and awaits the coming of his friend. When Mr. Grimes finally shows up he is greeted with a wink and a beckoning finger that draws him over to a retired spot, anxious to learn what new devilry is in the wind.

Rapidly Joe sketches the adventure of the preceding night. The lapse of time has not changed his mind with regard to things, and he sees matters in just as serious a light as when the events occurred two hours before.

Mr. Grimes hears the story gravely. He makes a good listener, for he says nothing until the end is reached, but all the while he keeps up a thinking. Of all people he is the last to make a mountain out of a mole-hill, but there can be no disguising the fact that their situation is desperate when a man like the baron can set such diabolical machinery in motion against them.

He agrees with Mynheer Joe that the time has come to strike back. Perhaps his methods may differ from those of the traveler, for Mr. Grimes is a believer in the homeopathic adage, *similia similibus curantur*—like is cured by like. When in Rome he does as the Romans do, and adapts himself to circumstances. This has been one reason for his remarkable success. To a certain extent Mynheer Joe has followed the same plan, but he cannot go so far as his friend in these matters, drawing the line at a certain point.

Thus, in order to meet at a common level these two must both give way. It is advice Joe seeks, nothing more.

Mr. Grimes ponders over the matter. He does not often act from impulse, and chews the cud of reflection at the beginning of a crisis, not when it has passed by, his policy being that an ounce of prevention is better than a pound of cure.

Finally he turns around and lays his finger upon the arm of the traveler. The light in his eye proclaims that he has conceived an idea, and Joe feels satisfied something is coming which will pay him well to lay hold of—something that may cause the baron to believe he has struck an avalanche.

"Mynheer Joe, we must be up and doing. This miserable Russian shall not say he has beaten three Yankees in a game. I know your principles and respect them, but the baron is an obstacle to our progress. He must be removed."

CHAPTER XXI.

THE BARON IS BOOKED FOR VALPARAISO

"In the first place," remarks Mr. Grimes, in that steady voice of his that never deviates, no matter what the excitement around him, "we must have the secret co-operation of the authorities in anything we undertake."

"There will be no trouble about that—I have already put a flea in their ear. They know who the baron is and what the nature of his mission to India may be. Naturally then they hate him—naturally it is to their interest to dispose of this spy who comes to foment trouble. The question is how far will they go?"

"You can see some of them again, Joe?"

"Readily, sir."

"Then we must fight fire with fire. Since the baron has inaugurated this system of tactics, we'll give him all he wants. His Russian ways don't go with people from the States. I wish we had him out there. A noose and the limb of a tree would transport him to eternity, unless we thought it best to use a coat of tar and ornament it with feathers."

"That would be a prime ending of the game, sir, but unfortunately we are in a country where such enlightened arts are not known. Besides, the Government would be held responsible for such a public taking-off. It will be better for us to have him transported."

"Certainly," remarks Joe, although he does not yet grasp the idea that is slowly taking form in the other's brain.

"In order to accomplish that, you find I must exercise our minds and arrange a plan by means of which the baron will step into a trap. We know his cunning, and whatever is done will have to be sugar-coated."

"That is quite right, Mr. Grimes." [To be Continued.]

Some Facts About Glass.

The oldest specimens of glass are traced back from 1,500 to 2,500 years before Christ. These are of Egyptian origin. Transparent glass is believed to have been first used about 750 years before the Christian era. The Phoenicians were supposed by the ancients to have been responsible for the invention, and the story will be recalled of the Phoenician merchants, who, resting their ooking pots on blocks of natron, or subcarbonate of soda, found that the union, under heat, of the alkali and the sand on the shore produced glass.

There is little doubt, however, that the art of glass making originated with the Egyptians. It was introduced into Rome in the time of Cicero, and reached a remarkable degree of perfection among the Romans, who produced some of the most admirable specimens of glass ever manufactured; an instance is the famous Portland vase in the British museum. Glass was not used for windows until about A. D. 300.—Harper's Weekly.

Starting a Race in Missouri.

The starter of the running races at Joplin is a big, black negro. He has created much amusement in getting the horses off.

A half dozen or more attempts were made, when the negro's patience became exhausted. Most of the jockeys were negroes, and as a final warning to one who persisted in snapping the rubber before the others were ready he said: "Nigger, if you does not get again I'll come out dar and knock you off dat horse," and he exhibited a good sized stick attached to the end of a rope, which he commenced to unwind. The exhibit of the stick had its effect. —Joplin News-Herald.

The Farm

Best the Harvest.

Remove the harness from the horse at once when you desire to give them a full, free rest, and since during the day at least, preferably at night, a thorough currying and grooming. This will enable them to secure the full benefit of the night's rest, and will materially in keeping them in good health and thrift.

Use All the Land.

Too much idle land is a loss, as it is taxed by the State and represents capital drawing no interest. It is better to concentrate effort on small areas, but large farms should at least be made to produce something to cover the surface, to be plowed under, so as to permit it to gain in fertility, which is an additional value.

Growing Turnips.

Turnips will be found one of the most useful crops that can be grown, not only for the table, but also for stock, especially for hogs that are in pens. They can be produced at a small cost, and are amongst the most wholesome of stock foods. Late turnips may be grown in the regular way, or the seed can be sown broadcast on a plot that is to be left over.

Temperature and Grains.

Experiments show that rye and winter wheat will germinate in a soil the temperature of which is thirty-two degrees; barley, oats, flax, peas and clover will sprout at thirty-five degrees; turnips the same, carrots at thirty-eight, and beans at forty degrees. If these experiments have been carefully conducted they demonstrate that some plants will sprout even below the freezing point.

Cure For Gapes.

Take a knitting or darning needle, and dip it in turpentine and drop one drop in the throat or windpipe, once or twice a day; and also put a few drops in the feed and keep the chicks in dry, clean coops, and your gapes will be no more. Damp, wet coops are sure to give the young chickens the gape, and the turpentine will kill every worm and the chickens will sneeze them out.—J. N. Alford, in Indiana Farmer.

Fall Seeding to Grass.

Fields are frequently seeded to grass in the fall. This is done without any crop, and in some cases is found to be more successful than spring seeding along with a crop of grain. This work should be done in August or early September on ground well prepared, that is made of fine tilth, smooth and well fertilized. Where this system works well there should be a good success with the crops of hay to follow, as they will have the entire benefit of the fertilizers applied.

Sheep on the Farm.

The truth is that the presence of a flock of sheep on a farm that appears to be thrifty and happy may always be accepted as a certificate of the ability and good character of the farmer, not only as such, but as a man as well. This criterion has such a natural coincidence that it strikes even the inexperienced passer-by, as it did a well-known missionary, a good man who did a vast amount of good in the early days and who used to say that when traveling on a mission he would always stop if possible with a farmer over night who had a well conditioned flock of sheep in his fields, because he would find a good-natured, kindly-disposed host.—American Sheep Breeder.

Alfalfa For Hogs.

A swine grower who has been trying alfalfa pasture for his hogs says that really they should not be pastured on it till the third season after sowing, as it requires three seasons he says for the plant to get well established, and if the swine are turned out before, it is likely to become seriously injured. The best results in pasturing swine on alfalfa come from the growing animals and when the alfalfa pasture is used for growing hogs, it is estimated that the grain ration may be cut one-half at least. There is the further advantage in pasturing that the hogs do not require so much care as when in confinement or on a range of limited area, and this is quite an item in the expense of raising swine.

Fowl Pastures.

But it is in the pastures that shrubs and bushes most abound. Especially is this the case where only cattle are kept. When there were sheep on nearly every farm there were not nearly as many bushes as now, and for this purpose it might be found profitable to have been sheep were kept. Unless a pasture is overstocked, cattle will pay little attention to the browsing of bushes.

Where bushes abound to any extent they should be mown or cut every summer, and August has been considered a good time for this kind of work. It is not to be expected that one cutting is going to exterminate them, but it will give them a good setback, and if the practice is continued every year it will not be long before they will be practically destroyed. In pastures thickly set with bushes Angora goats would often prove the best exterminators.

The Advantage of Salt.

Cattle should be regularly supplied with a certain amount of salt. The addition of a pinch of salt is found to exercise a beneficial influence, not only upon the digestion of the food, but upon the general health of the animals. This is especially so in the case of dairy cows whose milk yield is found to be very appreciably influenced by the presence or absence of salt in the food given them.

In some experiments carried out a few years ago in Europe, it was found that the addition of withholding of salt from the food given to dairy cows meant a considerable variation in the quantity of milk produced by them. In the case of such animals, it is thought that the salt not only exercises a beneficial effect upon the digestion of the food, but also acts as some sort of a stimulant to the milk-secreting organs,

and thus tends to encourage a freer and fuller flow.—American Cultivator.

Fruit Growing For Profit.

Profit in fruit growing depends on attention to the smallest details. The merchant who gives attention to the smallest details of his business will, in most cases, succeed. The manufacturer, if the price of his products is low, will make a profit out of his waste material. If the farmer is a fruit grower would give the same attention as the merchant or manufacturer, profit would be assured; but in most cases the tree is planted, cattle are allowed to destroy, or no care or attention is paid to it. If the tree comes into bearing, it is not cultivated, pruned, or in any way cared for. The result will be small, knotty, almost worthless fruit.

If profit in fruit growing is to be secured, let it be given through cultivation, careful pruning, spray at the proper time; thoroughly examine your trees at least twice each year for borers.—S. A. Gutschalk, in the American Cultivator.

Many Unnecessary Fences.

Old customs die hard, no matter how useless they may be. On farms where much stock is to be raised fences are quite necessary, but on farms devoted to fruit growing, vegetable raising or grain production there can be little need for a large expenditure in the way of fences. I was brought up on a New England farm, and speak from experience when I declare that the existence of useless fences is the cause of much waste of time and labor in the performing of the farm work.

Where stock raising is carried on a considerable scale we must have fences, for the farm crops must be rotated and the pasture must be included in the rotation. This is true of those farms where there is not a large permanent pasture. In the case of such a farm, it should be enough to fence the pasture or pastures thoroughly. Some would object that this would not allow the meadows to be pastured. Very well; the non-pasturing of the meadows would be a good thing for the meadows, and just as good for the farm animals in the end, as they would have a larger supply of forage from those same meadows.—Writer, in the Tribune Farmer.

The Blue Andalusian.

This interesting bird is one that is little known to the general run of poultry, although one of the oldest of our standard breeds, especially in this line in the Middle West, though it is fairly well known in the East, in Canada and on the Pacific Coast. It is a very handsome, stylish bird, gentle, hardy and a layer of wonderfully large eggs. A man in Nebraska claims he has a pullet which laid 256 eggs in one year; another declares he exhibited eggs at a show in Colorado where the dozen of eggs he showed weighed thirty-six ounces. We cannot vouch for these stories, yet we have no reason to doubt their truth. A man exhibited eggs one year at an egg-contest at Chicago where a dozen weighed thirty-two ounces, and were so accredited. Out of the dozens there exhibited they easily took first prize over Minorcas, Brahmas and what not. So much for the utility side of the question.

Their chief attraction from the point of view of beauty is their color, which is a leaden blue—about the color of smoke from tobacco. However, simply blue color does not make an Andalusian. You will often run across blue hens in a nondescript flock—but the Andalusian is distinguished by the lacing, which means that each feather has a blue background, and on the edge of each feather there must be an edge of darker blue. Without this edging (lacing) the bird, however blue, is absolutely "no good."—Inland Poultry Journal.

Milk Fever.

The Department of Agriculture has recently issued Circular No. 45, of the Bureau of Animal Industry, entitled "Milk Fever; Its Simple and Successful Prevention." It gives a complete description of the astonishingly successful results obtained in the treatment of this heretofore extremely fatal malady by the injection of filtered atmospheric air into the udder. Milk fever affects well nourished, heavy milking cows in all the large dairy districts of this country, and is characterized by the complete paralysis of the animal shortly after calving. As it attacks the best milking cows in the herd and at a time when the milk flow is the heaviest, the disease is one which has caused very severe losses in our dairy industry. It is, therefore, of the greatest importance that every milk producer acquaint himself with the present extremely successful treatment and apply the apparatus for injecting sterile air through each udder until the udder is well distended. This air treatment is by far the most simple and practicable, as well as the most efficacious and harmless one ever used, and has reduced the mortality from the disease to almost nothing. It is easy of manipulation, requires but little time, and is readily accomplished by means of the apparatus suggested by the bureau. Up to within recent times most stringent measures were resorted to by every careful dairyman to prevent the disease in his herd. However, since the air treatment has so greatly reduced, and even in some cases obliterated, the mortality, prevention is no longer such an important problem, and therefore preventive measures, such as starving, blood letting, etc., which have a severe and lasting effect upon the animals, should be abandoned. The most recent preventive treatment suggested is in line with the favorable results obtained by the injection of air into the udder. It consists in allowing the susceptible cow to retain in the udder for twenty-four hours following calving all the milk except the small quantity retained by the calf. The distention of the udder naturally follows as in the air treatment and acts as preventive against milk fever.



SMALL FRUITS.

The raising of small fruits on bottom lands has the advantage of a good moisture supply in seasons when other lands have a deficiency; but it has the drawback of such land being exceedingly subject to late frosts, and being too wet in times of freshets, and also in wet seasons.

FOOD VALUE OF FRUITS.

That fruits have many uses besides pleasing the taste is well known, but the exact properties of each kind are not so well understood by the consumers, and a few suggestions on the subject may not be amiss.

Fruit alone will not sustain life for any great length of time, but helps to furnish a variety in the diet.

It stimulates and improves appetite and digestion, relieves thirst and introduces water into the system.

If the medical uses of fruits were understood and care taken to use the appropriate kinds, much less medicinal treatment would be needed.

THE APPLE SCAB.

Experiments at the Ohio Station have demonstrated clearly that the apple scab is the chief factor in the destruction of the apple crop, and that the fungus can be kept under control by spraying. Four splendid successive crops were produced on the sprayed trees at the station, while the fruit on unsprayed trees in the same neighboring orchards was worthless. Director Thorne, however, calls attention to the fact that exhaustion of soil fertility, want of water and insect ravages may all co-operate with scab or other fungus growth in shortening the crop, and says: "If our orchards are again to produce the great crops of earlier days, restore the soil conditions of those days. We must avoid the waste of water in those sections where rainfall is scanty by preventing the growth under the trees of weeds and grass, and by keeping the surface in such condition as to prevent rapid evaporation."—Farmers' Home Journal.

BERRY CULTIVATION.

The bright red raspberries, which are the sucker varieties, need but little pruning for the first summer or any succeeding summer. The dark red raspberry, such as Columbian, and all blacks should be nipped the first season when the new cane gets to a height of twelve to fifteen inches. This makes the cane stocky and gives a larger amount of bearing wood, and in these varieties we can expect a good crop the next year after planting. The second and succeeding seasons the new growth will be stronger, and when the canes are from thirty to thirty-six inches high, nip the ends, with the idea of keeping canes low, branched and so stocky that they will stand without the necessity of staking or otherwise supporting.

Cultivation should be continued till well towards fall, and if new plants of the tip varieties are desired the tips should be put in in August or the first of September. After picking, old canes should be cut out and burned, and the branches of the new growth left alone until spring, even if they grow out four or five feet. When spring fairly opens, go over the bushes and cut laterals back to ten or twelve inches, leaving each cane standing like a well balanced tree.

The blackberry should be treated in much the same way as the black raspberry, as to nipping, trimming, etc., and a heavy mulch of coarse barnyard manure applied to the row will aid greatly in maturing crop of fruit and causing strong growth of new canes. In fact, this mulch will greatly benefit all the bush fruits.—D. C. Converse, in the American Cultivator.

PLANT MORE FRUIT TREES.

I believe that the only practical way to have plenty of fruit at all seasons is to set out a few trees each year. This is the way it has been practiced on this farm for the last twenty years, and now we have plenty of all kinds of fruit, and sometimes we sell at good prices. Only a few dollars each year has done this, and I consider it a good investment. So the only rule I give to the practical farmer, who wants fruit for his family, is to spend a few dollars each year and plant a variety. Sometimes the question comes before us, which shall we plant, large or small trees? This is a question for you. As a side line business I have had a little experience in selling fruit trees, and find that some people want large trees; I occasionally find some who want larger trees than I can sell, and I find some who want the small twelve-inch ones. Now, don't think I am a fruit tree agent, and am writing for my own pocketbook. I am a practical farmer, but sell trees to my neighbors in the spring, just a few, probably about enough to earn mine. I write from the standpoint of a practical farmer, as I am nothing else. For my own use I do not want too large trees, as so many roots have to be cut in digging at the nursery, the smaller trees, the more apt to grow, but we have to wait longer for fruit, and so I prefer not going to either extreme, but take a good medium sized tree, and if planted well will give good returns. I only wrote these lines to remind the farmer to plant trees, and after planting, give good care and you will be profited by it. I know you will, for I have been.—E. J. Waterstrip, in The Epitomist.

Mexico's Water Power.

Of the great abundance of water power with which Mexico is supplied, it is estimated that not more than 250,000 horse power is being utilized or is in course of development at the present time. The potential horse power has never been estimated with any degree of accuracy.

Needed the Newspapers.

The advertising manager of the Southern Pacific Railroad says he spent \$8000 on a booklet last year, but the results of the enterprise were not satisfactory until he advertised the booklet itself in the daily newspapers.



Pauperism.

In the last ten years the question of road improvement has received a good deal of attention from the legislators in the Eastern States, notably in Massachusetts and New Jersey. Careful study of the road question in these States soon developed the fact that the counties and towns were doing little and in many cases nothing, and that the roads were gradually becoming worse instead of better. In Massachusetts the idea was first conceived of having the State and civil subdivisions thereof co-operate in the improvement of the roads. A State law embodying this principle was adopted in New Jersey about the same time as in Massachusetts, and for the last ten years remarkable progress has been made in these two States. Indeed, the principle of State aid has become so popular within the last few years that this same principle has been enacted into law in the States of Maine, New Hampshire, Vermont, Rhode Island, Connecticut, New York, Delaware and Pennsylvania, and the idea is being carefully considered by the legislatures of many of the Southern and Western States.

Mr. M. O. Eldridge, Assistant Director, Office of Public Road Inquiries of the United States Department of Agriculture, recently made an inspection trip through the States of Maine, Massachusetts, Rhode Island, Connecticut and New York. In an interview Mr. Eldridge had the following to say in regard to the road conditions in these States:

"I am fully convinced from my recent trip that the roads which have been built in the East through the aid of the States and under the direction of highway commissions are the best roads in the United States, and are equal, if not superior, to the best roads in the world. This is due to the fact that these roads have been built under intelligent supervision, by skillful workmen, out of the very best materials, and with American road building machinery; whereas most of the roads that I have seen in the old country were built by hand, and have since been maintained in the same way. In spite of the long drought which prevailed throughout the New England States during the spring and summer the State roads were firm and smooth, and although I personally inspected over 500 miles of improved roads, I did not see a single one which had raveled or which had signs of wear from the recent dry weather. In the southeastern part of Massachusetts and along Cape Cod Bay, and in the southern part of Connecticut, the old roads were composed entirely of sand, but in spite of the dry weather, the State roads built on these sand foundations are remarkably hard and smooth."

Mr. Eldridge was asked if he thought that the people of the Eastern States, who had already built some good roads, and who have organized to continue the work along the present lines, would be willing to accept assistance from the general Government in building roads as provided for in the Brownlow bill.

"I believe," said Mr. Eldridge, "that the people of the Eastern States are so enthusiastic on the subject of good roads that they would be glad to accept the co-operation of the Government. They have been building good roads for the past ten years, yet the work of completing the system has just fairly started. Even if the present plans and liberal appropriations are continued it will take many years to improve all the important highways in these States, and consequently the people are anxious to secure any additional aid possible. The State Highway Commissioners of Massachusetts, Connecticut, New York and New Jersey expressed themselves as being in favor of national aid, and I believe that all the good roads people in the Eastern States are in favor of it."—Good Roads Magazine.

Losses by Bad Roads.

As to losses by bad roads, the office has learned, by consultation with many thousands of the most intelligent farmers of the country, that the expense of moving farm products and supplies averages, on all our country roads, twenty-five cents per ton per mile; whereas in the good road districts of this and other countries the cost is only about one-third of this amount. This extra expense amounts in the aggregate to more than the entire expenditures of the National Government, and taking into account all of the hauling done on the public roads, the loss is equal to one-fourth of the home value of all the farm products of the United States. The increase in cost of hauling actually done is by no means the only loss resulting from bad roads. The loss of perishable products for want of access to market, the failure to reach market when prices are good, and the failure to cultivate products which would be marketable if markets were always accessible, add many millions to the actual tax of bad roads. Moreover, the enforced idleness of millions of men and draft animals during large portions of the year is an item not always taken into account in estimating the cost of work actually done. The tax of bad roads will become constantly harder to bear as the people of the United States are brought into keener competition with the cheap productions of other agricultural countries. The continuous improvement in transportation facilities, both by rail and water, is steadily opening our markets to countries where labor is cheaper and in many cases where roads are better, and the agriculture of this country will not long stand a needless tax equal to one-fourth the value of its products.

In Great Britain the number of patents in each 1000 of the population is twenty-six. In southwest England it is thirty-three. In some American cities ten per cent of the population receive charitable assistance, as, for instance, Cleveland, Ohio.