

### The Major's Experience.

From the Detroit Free Press.  
One of the staunchest supporters of the deep-water way from the Great Lakes to the ocean is Major A. C. Bishop, of 715 Third Ave., Detroit, a civil engineer of wide experience and considerable prominence in his profession. He was assistant engineer on the Hudson River Railroad in 1850 and has since conducted large engineering operations. He has been located in Detroit since 1851, and has a large acquaintance among the business men and citizens of this city.

Two years ago, for the first time, Major Bishop was in the hospital. For two months he had the best of medical attendance, but when he was discharged he was not like the Major Bishop of old. When asked regarding his health, he said: "When I had my last spell of sickness and came out of the hospital I was a sorry sight. I could not get a my strength, and could not walk over a block for several weeks."

"I noticed some articles in the newspapers regarding Dr. Williams' Pink Pills for Pale People, which convinced me that they were worth trying and bought two boxes. I did not take them for my complexion but for strength. After using them I felt better, and know they did me worlds of good. I am pleased to recommend them to invalids who need a tonic or to build up a shattered constitution."

"A. C. Bishop."

Subscribed and sworn to before me this eight day of January, 1893.

ROBERT E. HELL, Jr., Notary Public.  
The pure, powerful vegetable ingredients in Dr. Williams' Pink Pills for Pale People supply the antidote for poisonous matter in the blood and add those elements needed to build up body and brain. Many diseases long supposed by the medical profession to be incurable have succumbed to the potent influence of these pills. They can be taken by young or old, being harmless in their nature, but powerful in eliminating disease.

**Economy.**  
Mrs. A.—Do you find it more economical to do your own cooking? Mrs. B.—Oh, yes; my husband doesn't eat half as much as he did.—Judy.

**A Short Fight.**  
The damp of autumn nights and mornings stir up solatia, and then comes a tug of pain. Use St. Jacobs Oil, and then comes a tug to cure it. It is a short fight and the cure is sure.

Contract is a very high quality. Some men will die before they will work.

**Mrs. Winslow's Soothing Syrup** for children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. A bottle, 25c. Always pure. Sold in all drug stores.

There are some long-let waxes which should never be filled.

**No-To-Bac for Fifty Cents.**  
Guaranteed tobacco habit cure. makes weak men strong, blood pure. 50c. All druggists.

Exceptions frequently prove the rule to be bad.

**Fits permanently cured.** No fits or nervousness after first day's use of Dr. Kline's Great Nerve Restorer. 50c. per bottle and treatise free. Dr. H. H. Kline, Ltd., 511 Arch St., Phila., Pa.

The rosy cheek is the greatest side-show on earth.

**Don't Tobacco Spit and Smoke Tear Life Away.**  
To quit tobacco easily and forever, be magnetic, full of life, nerve and vigor, take No-To-Bac, the wonder-worker, that makes weak men strong. All druggists, 50c. or 75c. Cure guaranteed. Booklet and sample free. Address: Sterling Remedy Co., Chicago or New York.

**The Newest Bustle.**  
A corset has just been invented with a self-adjusting bustle attachment, which corrects all the faults of the old bustle, and yet is a bustle still. It opens and shuts, and when closed it is so small that it may be easily slipped in a corset box after the corset has been packed. It is a curious looking little affair, made of four pieces of steel, covered with satin, and may be easily adjusted to conform to the natural outlines of the figure. The bustle is as light as a feather and is fastened to the corset just below the waist line, where a hollow is generally seen in the average figure. The corset is provided with little straps, and the bustle is attached to it by means of four fasteners. The two lower fasteners are so arranged that they cause the bustle to add to the fullness of the hips, and at the same time they remedy the faults of the back. The corset is not unlike the other corsets, with the exception that it is especially re-enforced with triple strips to prevent the bones and steels from cutting through the material. Another advantage of this corset bustle is that it is one of the cheapest of the well-made corsets in the market. It can be bought ready made, of course, in white, gray and black, or can be a more expensive made-to-order affair.

**Fighting Yellow Fever.**  
Eminent medical authorities are of the opinion that the South will be practically freed from the standing menace of yellow fever as soon as American methods can be brought to bear on the question of sanitation in our newly acquired provinces. Santiago is a very paradise of filth, and there is not for one hour any reasonable assurance that an epidemic may not break out there. The sacrifice of the principle cities and ports of Cuba through their purification by fire will be a cheap and eminently suitable operation, provided it eventuates in that cleanliness that comes by fire alone. The immunity of the South from such a scourge will be secured at a most reasonable rate, if the predictions of the physicians are fulfilled. They claim that with Siboney, Santiago, Havana and a few other points subjected to such vigorous treatment, there will be little, if any, difficulty, in controlling, if not absolutely stamping out, this dread disease. This is the first time that yellow fever has been attacked in its stronghold, and the fact that most of the cases are of an extremely mild type is a matter for most decided rejoicing.

### ACRES OF DUCKS.

RAISED BY THE THOUSAND ON A NEW JERSEY FARM.

They Are All Hatched in Incubators—A Little Food Keeps Them Fat—Water Bad for Young Ones.

Acres of wild ducks is a common but extravagant descriptive term used by some sportsmen, and acres of wild geese is one of the things people read of in California. Some allowance is usually made for the statements, but there need be none made for the assertion that on a New Jersey farm within four miles of Trenton there are acres of domestic ducks. The farm borders on the Shababkong road, and the fields beside the road are filled with large and small flocks of pure white Pekin ducks. Patrick MacAvoy is the duck farmer. Fifteen years ago Mr. MacAvoy was a bookkeeper in New York. His health gave way and he was advised to move into the country. He rented a farm, and embarked in the milk business. He was one of the pioneers in bottling milk. He was also a pioneer in the use of ensilage as food for his cows, and built a large silo in connection with an improved and well-appointed cow barn and dairy. These were destroyed by fire about ten years ago, and Mr. MacAvoy looked about for some new business.

He started a chicken farm to raise broilers for the New York market, but soon found that there were dealers who sold broilers for 20 cents a pound early in the season, while he could not afford to raise them for less than 50 or 60 cents a pound. He investigated, and learned that the two and three pound birds shipped from the West in the fall and winter were frozen in refrigerators and held for the early spring trade. That drove him out of the chicken broiler business, and he started his duck farm. He began nine years ago with five ducks. Last year he raised 30,000 and now has on a part of his 150-acre farm about 26,000. The number will grow less week by week now until his stock will be reduced to about a thousand, or maybe 800, which will be the finest of his flocks and will be kept for breeding purposes next year. New York takes the whole product of the farm.

These thousands of ducks are all hatched in incubators of Mr. MacAvoy's invention. There are eighteen of them, with a capacity of 1,000 eggs each, and in the height of the hatching season, about the latter part of May, it takes the entire time of one man to look after the incubators and remove the little ducklings to the brooders, which are placed in a sunny room in the second story of an adjoining building. Here they are kept for ten days when they are ready to be transferred to the field. It takes nature four weeks to hatch a duck's egg; the incubators can beat nature by forty-eight hours.

Not every egg that goes into the incubators produces a duck. The duck farmer has succeeded in hatching 97 per cent. of the eggs placed in the artificial hatchery, and at other times has secured only 50 per cent. All the eggs are tested before being placed in the incubators, and at the end of the third day they are again carefully inspected, and those that lack fertility are taken out and boiled hard and mixed with the meal cake that furnishes the food for the ducklings during their earlier days.

"It must take a large amount of feed for so great a flock," suggested the writer to Farmer MacAvoy.

"Not so much as is generally believed," he replied. "I have found that if ducks are fed regularly it requires little to keep them fat. They get all they can eat. The little ones are fed six times a day and the grown ones three times."

"But you have no ponds for them to swim in. Ducks cannot be raised without water, can they?"

"No. They get all the water they can use, but it is given to them in troughs. It is for them to drink; not to swim in. There is a creek down at the end of that field that is for the grown ducks that are ready for market. They are so fat that they must have the cooling water of the creek for their bath, and they spend much of their time under the trees in the shade. There are wooden shelters for the others, in which they run to escape from rain-storms and from the heat of the sun in the middle of the day. Besides, you know, water is not healthy for young ducks," and in explanation the duck farmer went on: "It's a curious fact that if water gets upon the back of a young duck before its feathers grow, the duckling will die."

Adjoining the field of breeders is the field for the ducklings, in one end of which are the runs connected with a row of low one-story frame houses, about 200 feet long. Flocks of 200 or 300 are placed in each run, as it is found that they do not thrive when allowed to run in one large flock. In the field they wander about in flocks, and when disturbed by the visit of a stranger each flock will start in single file for its particular runway. Apparently they know where they belong, as some occasionally get into the wrong runways and quickly go out and into the right one.

The ducks, large and small, appear to know Mr. MacAvoy and the dozen men and boys employed to aid in caring for them day and night. These attendants go about the fields, and the birds pay no attention to them. Neither do they mind the two large English mastiffs and five fox terriers that guard the flocks against thieves, cats, foxes, and other unwelcome visitors. Besides the dogs there are

watchmen employed day and night. Few visitors are admitted.

The principal food of the ducks is a mixture of ground corn, bran, broken crackers or biscuits, and meat scraps, the meat and bone being reduced under steam pressure into a liquid mass and then mixed with the grain in hugh troughs.

Broiler ducks when fit for the market should weigh from five to seven pounds, and this weight Mr. MacAvoy can get in ten weeks from the egg. Beginning in February, he makes three shipments a week, increasing to five a week later on in the season. Under the same roof that the duckling leaves the egg he closes his brief career, as the killing room adjoins that containing the incubators. Here they are killed in the peculiar fashion demanded by the trade, scalded in steam boilers, plucked, dressed, and packed for market. The feathers themselves make quite an item in the income of the farm. They are of snowy whiteness and soft as the down on a goose's breast, for which they doubtless pass when they reach the hands of the pillow makers.

Farmers ordinarily are well satisfied if they get a score or so of eggs from a duck in a season, but Mr. MacAvoy says his ducks yield from 125 to 150 each in a season. This information was imparted in answer to an inquiry why he did not raise geese also. A goose, he said, lays twenty-five or thirty eggs in a season, and a ten-pound white Pekin duck brings in as much money as a goose. In the height of the laying season forty or fifty eggs are frequently taken from a single nest in one day, and the attendants are obliged to watch carefully the fields in which the ducks roam, where dozens are often found upon the ground.—New York Sun.

### WRECKS AND DERELICTS.

The Vesuvius—Successful in Removing These Menaces to Navigation.

Gustave Kobbe writes an article for St. Nicholas on "Battling with Wrecks and Derelicts." Mr. Kobbe says:

A stranded vessel is not a menace to navigation, and is therefore left severely alone; but a wreck sunk in a few fathoms of water, in the track of coastwise shipping, is a dangerous obstruction. The large, heavy masts of a sunken coaster might rip up the bottom of a coaling vessel, and a ledge of rock would not be more fatal than the submerged hull. In one year the United States Hydrographic Office, which is a branch of the Bureau of Navigation of the Navy Department, has received nearly two thousand reports of wrecks and dangerous obstructions, and ordered the destruction of as many of these as was practicable. This work is done with torpedoes. After the explosion there is no torpedo left, but there is also no wreck.

It is impossible to say how much damage has been done by collision with wrecks and derelicts, as ships abandoned at sea are called. Sunken wrecks are hidden dangers. The sky may be clear and the sea-way light; they smite the unsuspecting victim from the depths, and add one more to those disasters which are the more tragic for the awful mystery that surrounds them. During the seven years from 1887 to 1894 forty-five such collisions—nine, or nearly one fourth, resulting in total loss—were reported to the United States hydrographer. Of the nine fatal collisions, five were with wrecks, and four with derelicts.

The "Yantic," the "Dispatch," and the dynamite cruiser "Vesuvius" are among the vessels of the United States navy which have most actively waged war upon sunken wrecks. The U. S. S. "San Francisco" also has the honor of having destroyed a derelict, in which operation she was, however, obliged to resort to all usual methods of naval attack except boarding—torpedoes, ramming, and shelling. Captain Crowninshield, when commanding the "Kearsarge," removed a curious obstruction to navigation, off Cape May. A schooner was reported sunk there in twelve fathoms of water. Captain Crowninshield was surprised, on reaching the spot, to find the heels of two masts—not the upper, but the lower ends—protruding fifteen feet above water. In some inconceivable manner, these masts must have become unstepped from a sunken vessel, and the heels had swung up, the ends of the spars being held down by the rigging. One mast was shattered with torpedoes, the other pulled out by the "Kearsarge" and then destroyed. It was not necessary to break up the hull, as there was enough water above it.

The "Vesuvius" was very successful as a wreck-destroyer. Some of the obstructions are difficult to locate. The same wreck may be reported in three different positions by as many different vessels; and with so many clues to follow, it is not easy to run down the game. The "Vesuvius" has found a wreck with only two feet of spar protruding above water—and two feet of spar sticking out of the broad Atlantic is rather like the traditional needle in the haystack.

### Cost of a Naval Battle.

"The cost of a naval battle between two modern battleships in the value of projectiles and the probable damage to structure is estimated as easily approximating \$1,600,000," says The Age of Steel. "This little bill would be filled out in the space of sixty minutes, provided all the armament of each ship was in active service for that length of time. Should one or both ships be lost in the fray the loss would add tremendously to the above figures."

### FARM AND GARDEN NEWS.

ITEMS OF INTEREST ON AGRICULTURAL TOPICS.

Gypsum as a Fertilizer—Transplanting Trees—Sore Eyes in Cattle—Care of Breeding Poultry—Etc., Etc.

#### GYPNUM AS A FERTILIZER.

Gypsum is usually regarded as a fertilizer which, however, contributes little directly to the support of plants, but recent experiments by Messrs. Cockerell and Garcia at the New Mexico Agricultural Experiment Station, Mesilla Park, N. M., have proved that nearly pure gypsum will nourish plants as well as ordinary soil, or better. Wheat and peas were grown by them in a natural deposit of white sand on the east side of San Andreas Mountains, New Mexico, with great success. The composition of the sand is gypsum, 97; carbonate of lime, 2.86; carbonate of magnesia, .06; sulphate of magnesia, .12 per cent., and traces of other minerals. It is not apparent how the wheat came by its nitrogen in such a soil, though the peas might get it through the tubercles of the roots.

#### TRANSPLANTING TREES.

The fall season of tree planting is now at hand, and there will be the usual number of trees set out as if they were posts, just as there is each planting season. It is not, as a rule, difficult to make a transplanted tree live, but there are a few points that must be observed and especially in fall planting. The hole must be sufficiently wide to take in the roots of the tree spread out in a natural position. The hole should be deep enough to let the tree stand about an inch deeper than it stood in the nursery; this depth can be easily seen on the young tree. The soil must be worked among the young roots so that no air spaces are left.

No manure should be placed to come in direct contact with the roots. Any fertilizer used should be put in the bottom of the hole and covered with soil several inches before the tree is set. After six inches of soil has been placed over the tree roots pound it down hard, doing the same with each shovelful of soil as it is thrown in until the hole is full. This plan will make the soil fine and do away with the need of water at transplanting time. In cold climates heap the soil up around the tree for several inches to give added protection to the roots during the winter. In the spring this soil may be pulled down level with the surrounding earth.

#### SORE EYES IN CATTLE.

A disease more or less known for several years, in the west and south especially, that affects the eyes of cattle has spread with considerable rapidity this year, and to make matters worse, it is contagious. The symptoms are swelling of one or both eyes, a partial or complete closing of the lids and a profuse flow of tears. The eye ball becomes bloodshot and the central part of the eye over the pupil will bulge out. In some cases the bulged portion breaks across, and there is more or less pus. The disease runs its course in about six weeks, frequently leaving the animal blind or partially so.

As the disease is contagious the afflicted animal or animals should be separated from the rest of the herd as soon as the first symptoms of the trouble appear. Keep the animals indoors during the day and, if the weather is not too bad, let them out at night. Apply a one per cent. solution of atropine twice a day and calomel dust once a day, using the latter through one of the small "guns" in common use for insect powder. The treatment will relieve the trouble and if given in time will usually prevent any impairment of the sight. The attendant should wash his hands with carbolic solution after giving the treatment, for there is a possibility of the disease being conveyed from cattle to humans.—Atlanta Journal.

#### FARMING ON SANDY SOILS.

It cannot be denied that sandy soil, in the easiness with which it can be worked, in the quick response it makes to manures, and in its freedom from the flooding which heavier soils are always liable to, has some advantages for the cultivator. One who has long owned a sandy farm, and had made it a success, boasted that within 24 hours after the worst rainstorm he could always plow or cultivate his land if it needed it. The farmer on sandy soil is himself to blame if he is troubled with the annual weeds that are the plague of the lowland farmers whenever a wet time follows the planting of hoed crops.

The difficulty with sandy soil is in keeping up its fertility. It has very little vegetable matter, so that the manure does not hold in the soil as it does when applied to those of heavier character. To secure vegetable matter in the soil clover must be sown as often as every third year, and if it can then be allowed to grow two years before plowing, this will only mean one cultivated crop in three years, the other two the clover occupying the land. To be sure something is made by feeding the clover, though it is not as much as the average of farm crops. The result is that sandy soil is almost everywhere devoted to growing crops where earliness is the most important requisite. It is a good soil for gardeners, though where a sandy soil is used for a market garden, it will require greater amounts of stable ma-

#### A WONDERFUL SIGHT.

The Tree of Ten Thousand Images in Tibet

Of all the wonderful sights reported by the Jesuit missionaries, Huc and Gobet, during their explorations of Tibet, by far the strangest is what they have to say of the Tree of Ten Thousand Images. They had heard about this wonderful tree long before they reached the locality of its growth, and, as they approached the spot, their curiosity regarding it increased a thousand fold.

Here is their narrative of the result of their examination of the tree:

"It will here be naturally expected that we say something about this tree itself. Does it exist? Have we seen it? Has it any peculiar attributes? What about its marvelous leaves?" "Yes this tree does exist. At the foot of the mountains on which the Lamaseri stands, and not far from the principal Buddhist temple, is a great square inclosure, formed by brick walls. Upon entering this we were able to examine at leisure the marvelous tree, some of the branches of which had already manifested themselves above the wall.

"Our eyes were first directed with earnest curiosity to the leaves, and we were filled with an absolute consternation of astonishment at finding that, in point of fact, there were upon each of the leaves well-formed Thibetan characters, all of a green color, some darker, some lighter than the leaf itself. Our first impression was a suspicion of fraud on the part of the Lamaseri; but, after a minute examination of every detail, we could not discover the least deception. The characters all appeared to us portions of the leaf itself, equally with its veins and nerves; the position was not the same in all; in one leaf they would be at the top of the leaf; in another, in the middle; in a third, at the base, or at the side; the younger leaves represented the characters only in a partial state of formation.

"The bark of the tree and its branches, which resemble that of the plane tree, are also covered with these characters. When you remove a piece of the old bark, the young bark under it exhibits the indistinct outlines of characters in a germinating state, and what is very singular, these new characters are not infrequently different from those which they replace. We examined everything with the closest attention, in order to detect some traces of trickery, but we could discern nothing of the sort."

The missionaries, Huc and Gobet, might have remained in Tibet as long as they wished had it not been for the interference of the Chinese ambassador there. For some reason this individual took a dislike to them, and ultimately caused them to depart. The Lamas were willing that they should remain, but it appeared to the missionaries that their presence might cause disturbance, so they quickly withdrew, taking with them some of the first facts ever gathered in that mysterious land.

#### Three Layers of Atmosphere.

Professor F. H. Bigelow, of the United States Weather Service, presented a paper before Section B, of the American Association for the Advancement of Science recently, outlining his investigations of atmospheric conditions. The first of these, entitled "The Structure of Cyclones and Anticyclones," is in truth the continuation of one given last year at the Detroit meeting of the association. The paper of last year outlined the mathematical conditions; the present one gave some of the results of observation.

It appears that in the atmosphere there are practically three distinct currents of air, the first lying at an elevation of from 900 to 1,500 metres, the second at from 2,500 to 4,000 metres and the upper one at from 6,000 to 8,000 metres above the surface of the earth. These are, to an extent, separate currents flowing each with its own velocity. At the bottom of each of the layers the stratus of clouds are formed, and at the top of each of the layers occur the cumulus clouds. This suggests that the stratus originate at the bottom of a moving current and the cumulus at the top. It is probable, then, that the stratus owe their origin to the difference of velocity and temperature of the two layers, while the cumulus are formed by ascending currents within the layer of air.—Boston Transcript.

#### Brought the Cat from Ireland.

The first Irish cat ever brought to this country by an immigrant arrived on the Cunard liner Servia, and naturally enough the fact that an immigrant should take the trouble to bring such a possession three thousand miles or more attracted considerable attention among the Barge Office officials. The immigrant who left home and country behind, but who would not leave the cat, was Mrs. Mary O'Sullivan, of Ballybunon, County Kerry, Ireland. In talking of her affairs, and incidentally the cat, Mrs. O'Sullivan said: "Sure, me darling, Oi hated to leave the old sod, but Ireland is now a poor country, an' that's no lie. Still Oi hated to give it up. But me childer are all in America, so Oi hev come over to spend me last days wid them. Oi was sad indeed when Oi had to leave the old cabin that Oi was born in, an' me mother afore me, but Oi couldn't bring the cabin wid me, so Oi did the next best thing, an' Oi brought the kitten. You know Oi couldn't leave the poor thing behind me, as the neighbors wouldn't care for puss loike Oi hev done. An' so here she is, as good a mousetrap as wuz ever invented. Oi hope yez hev no livers agin furrin kittens in this country, because she is well-mannered, an' wouldn't harm a one."—New York Tribune.