

WHAT SCIENCE HAS DONE FOR THE FARMER

How much the American farmer owes to the federal department organized and maintained for his benefit is sometimes lost sight of in our rejoicing over the improvement in condition.

When the bureau of agriculture, which was said to consist of a desk and a bag of seeds under it, was elevated to the dignity of a department it was ridiculed by many newspapers much as the agricultural workers were ridiculed by "practical" farmers. The new department was regarded as a political concession to the farmer vote by a great many persons and only a few believed it would result in a large measure of good to the country.

The department entered into friendly relations with the agricultural colleges and early began to employ men of science to make experiments in whatever had a connection with farming. The idea that agriculture would continue to decline in importance because of the attention paid to manufactures was not shared by the few who foresaw the development of the science of the fields.

The faith of these few men has been abundantly justified by the results already achieved. The department of agriculture at Washington is now recognized as the greatest research university in the world. It has shown the farmer how to increase his crops many-fold; how to make profitable crops on lands which had been abandoned as worthless; how to make the desert bloom and how to dispense with rain and irrigation; how to keep his animals alive and free from contagious diseases, some of which have been nearly eradicated by means of its discoveries; how to breed and feed different animals; thus increasing enormously the revenues of the farm.

The investigations at the various stations of the methods of improving the types of animals promise to give results of the highest importance. The study of soils and conditions of plant growing by the department experts will prove of immeasurable value to the nation.

Prof. Moore's plan of "inoculating the soil"—although the results of many experiments have failed to justify all the claims made for it—bids fair eventually to add much to the productivity of certain plants; and even the ridiculed distribution of seeds, wastefully as it has been conducted, has probably paid for itself many times over.

The bureau of forestry has inspired a degree of care for the preservation of the woods that is already fruitful. It would take a large volume to give a fair idea of the ultimate results of the varied labors of the department. The achievements of the bureau of entomology, in cooperation with the experiment stations in several states, are especially noteworthy. It has gained control of the cotton-work, which is a bad year cost the planters \$30,000,000. By the destruction of the Hessian fly it has saved the wheat farmers from \$100,000,000 to \$200,000,000 a year. By inducing the apple growers to use arsenical sprays against the codling moth it has saved them about \$20,000,000. Many millions have been saved to orange and lemon growers in California by the destruction of the white scale. In preventing the operations of the rootworm in the corn growing parts of the Mississippi valley, \$100,000,000 annually is saved. Texas is likely to be richer by millions through the introduction of a diversified agriculture as a means for the partial control of the boll-weevil, which threatened make cotton growing impossible.

These are but a few of the benefits that have followed the work of the department. Yet many of the scientists, whose work saves the people at large hundreds of millions a year, are paid utterly inadequate salaries, and much of the work is handicapped by insufficient appropriations. The people should see to it that the congressmen wake up to a full realization of the value of this department and support it loyally.

CHASED THE TIGER OUT OF HIS CAGE

What was advertised to be a sensational spectacle, a battle between a bull and a tiger, was brought off at Cocon Grove, down at Panama, a few days ago in the presence of an immense crowd. The time was Sunday afternoon, the stands were crowded and it is probable that 4000 persons were in attendance. The proceedings which preceded the great event, the sport began about 3 o'clock with some preliminary bull fighting. The bull was not killed and his turn in the ring was merely for the purpose of sharpening the appetite of the spectators for the star event.

The novel contest between the bull and the tiger aroused the greatest interest, and some restless spirits could scarcely contain themselves and check their impatience during the proceedings which preceded the great event. The sport began about 3 o'clock with some preliminary bull fighting. The bull was not killed and his turn in the ring was merely for the purpose of sharpening the appetite of the spectators for the star event.

Soon after the exit of the third bull another one was driven into the ring. He was a bovine of forbidding appearance, dingy in color, defiant of respect, spry of movement. His manner did not invite familiarity, and immediately after making his entrance he signified a desire to have the arena to himself by caving the crowd about the inclosure and charging everything in view. Plainly this was the animal who should defend the cause of the herbivores against the carnivores.

Bull Dragged Into Arena.

It was regarded as unseemly that such a champion should be subjected to the indignity of baiting, and the gathering intimated its wish that the baiting cease. The crowds shouted, "The tiger for him!" The terrors of the jungle. The bull was lassoed and led into a square cage of stout planks, with iron bars about 6 inches apart, which was to be "the ring."

On the ground outside the walled arena was a wooden cage, in which could be seen a large cat moving restlessly in the confined space. This cage was pushed towards the larger cage, in which the bull was already secured, and when the openings in each coincided the doors were raised, allowing the animal in the smaller

cage free egress out into the ring. At once there was a craning of necks, all eyes being focused on the door of the cage to see what line of action the tiger would adopt. Those who expected to see the fierce carnivorous animal rush madly from its corner and seize its prey by the throat, as they are supposed to do, from all accounts in the text books of natural history of our school days, were disappointed. The large cat was loath to leave his cage, seeming to have an actual affection for it.

Those who expected to see the ruminant shrink and cower in a corner of the inclosure in the presence of his natural foe, as he ought to have done in keeping with tradition on this point, were also disappointed. It was the beast of prey, the devourer of oxen, the terror of the forest, that curled up in his corner, indisposed to possess himself of the splendid feast that on the hoof confronted him in the middle of the square, coolly pawing the ground and beseeching him to come out. "The tiger is wise," was the judgment of some present.

A pantomime show between the two animals continued for about two minutes. Hoofs kept throwing spadefuls of earth behind him until it was even suggested that he ought to go to work for the canal commission, and that he would be able to dig a large-sized hole in the ground. Claws responded with a wise and masterly inactivity.

In response to the challenges of Hoofs, Claws replied that he found the corner of his cage too cosy to be vacated. Besides, he was a modest animal and shrank from the gaze of the large assemblage. He also had religious scruples and was averse to fighting on Sunday afternoons. Seeing that the comfort of his cage proved too alluring, it occurred to the attendants that if it could only be made uncomfortable that Claws might be induced to come out. But it did not work. Claws even preferred fire and brimstone to the society of Hoofs, and stood out the smoking.

Cat Runs Away.

There was only one recourse left, and that was to squeeze him out. So by means of boards, and after several minutes of hard work, the big cat was almost catapulted into the cage. It was then seen that he was of the South American variety of leopard known as the jaguar.

But it hadn't an ounce of fight in it. It made desperate attempts to avoid a conflict with its horned an-

tagonist, crouching low or running this way and that way about the cage with its muzzle in search of a weak place.

The bull watched it curiously for awhile and then took action. He reached the jaguar twice, but each time he of the spotted coat applied himself diligently to the pressing duty of finding a space between the bars through which his sinuous body might pass.

His efforts were at length crowned with success. He wedged his muzzle firmly between the two bars, which spread apart enabling the animal's round head to get through: the lean body easily followed and the next second Spots was gaily trotting across the open ring toward the spectators, from whom he was separated only by a low wooden barricade. A scene of indescribable excitement ensued. At once there was a stampede for the gateway, though many who held positions of comparative safety kept their places. The word was quickly passed into the street that the tiger had broken loose and panic spread in the neighborhood.

But the beast did not seem intent in doing much damage. He was completely cowed, and seemed more interested in finding a place of safety. Several men who had revolvers on them sought him out, and for a while the air rang with the reports of firearms. The shots took effect, and soon the band struck up a triumphal air which told that the tiger had been killed. The body was then brought into the ground where a dense fighting crowd gathered around to see it. The fight had been a fiasco, but everybody appeared to have been satisfied with the excitement afforded instead.

WANTS EIGHTY CENTS.

Firm in Seattle Sues Customer for Balance and War Is On.

The recovery of 80 cents alleged to be due on a \$1 purchase is the object of a suit filed in the superior court this morning by the MacDougall & Southwick company against Bolling Selden, president of the Bronx Investment company and one of the city's prominent business men, says the Seattle Times.

The complaint of the department store company is brief and to the point. It alleges that on April 23, last, the defendant Selden purchased goods to the value of \$16, and "that no part of such sum has been paid this plaintiff save and except \$15.20. Wherefore the plaintiff asks judgment in the amount of 80 cents against this defendant."

Charles E. Piper, attorney for the MacDougall & Southwick company, declined to discuss his case.

"The complaint speaks for itself," he said. "The company has nothing further to say at this time."

Selden freely told his side of the story. He pronounced the suit a bit of spite.

"I don't deny I'm mad all through about this matter," he said. "MacDougall is a Scotchman, but he has run up against a combination of English and Irish that will fight him to the end."

"Both my wife and I have dealt four years with Mr. MacDougall's house and in that time purchased large quantities of valuable house furnishings and other necessities. Last spring we got some furniture that came to \$16. When the bill came to me I deducted the customary 5 per cent discount for cash and sent my check for \$15.20. A statement was sent me for the 80 cents. I told the company I wouldn't pay it. The collector said Mr. Dougall would spend \$50 to collect that money."

"I promise Mr. MacDougall that I will spend \$500 to beat him and more if necessary. I am going to demand a jury trial and give them a legal battle all the way."

The jury will cost the party demanding it \$12, and before this 80-cent controversy is ended an amount that probably will touch \$1000 or more will have been expended, all told.

A NOVEL INDUSTRY FOR CITY WOMEN

There are hundreds of women who are longing after the opportunities of city life for making money and are neglecting the greater opportunities right at home. Such a one wrote to a friend in a city, asking her to get her something to do. This was the answer she received from her wise friend, says the Saturday Evening Post:

"You just stop thinking about knitting or embroidery and plant watercress in that running stream back of your house."

Mrs. Anderson acted on her friend's advice. She first sent to the agricultural department at Washington for their free pamphlet on the cultivation of the watercress. After

reading it carefully, Mrs. Anderson bought some seed from a reliable florist and carried out exactly the directions given by the agricultural department.

The seed were planted the first week in August, and the first cress was sent to market just one month later.

Mrs. Anderson, from the beginning was an enthusiastic grower, and she thought she saw great possibilities in the business. Her expectations have been more than realized. She is now one of the largest growers of cress in the United States. What one woman has accomplished another way.

The watercress, although not well-known among farmers, is one of the finest salad greens that can be grown and is much sought after by city people. It grows and spreads over ground on which nothing else can be raised and produces one crop after another for six months or more of each year. It thrives in clear, shallow streams of running water. A swamp can be utilized if ditches are dug and the ground thoroughly drained.

It is propagated in two ways—by sowing seeds, and by planting out cuttings. If seed is used, sow it broadcast into the water. Sow the last of July or the first of August. This method is the cheaper, and is best for a new hand at the business. If cuttings are used, they should be pressed into the soil in the stream. The beds should be planted at right angles to the stream, rather than parallel with it. In making the slight excavations for the beds, when cuttings are used, leave small places eight or ten inches wide and pack the soil around the cuttings as close as possible to prevent washing. This small space running at right angles between the beds prevents injurious washing in a spring freshet or a heavy rain.

When the plants are two inches above the water they are ready to cut for market. They are cut with sharp shears. An inexperienced grower must be careful not to cut too deep and thus destroy the root. A crop can be cut every three or four weeks. The more plants are cut the greater the yield. If the climate is mild the cress can be gathered all winter, as an able amateur.

the motion of the running water prevents freezing. Watercress used as a salad is said to be an excellent tonic and sure cure for "spring fever" and torpid liver. "If people would eat more greens (and cress is the very best of greens) they would not need so many tonics and pills," said a noted physician recently.

There are many ways of preparing cress for the table, but, generally speaking, the simplest way is best. It should always be well washed in salty water and set in a cold place until it is served.

Undoubtedly Mr. Roosevelt knows a good deal about animals, but it was a mistake for him to tackle Dr. Long, because animals are Dr. Long's specialty, and while neither he or any one else knows all about them, it is easy for him to make it appear that he knows more about them than Mr. Roosevelt does. He has time for the work, he is a good writer, his cause is just and the newspapers seem ready to give him all the space he wants. If he has not already succeeded in making Mr. Roosevelt regret that he attacked him, must be because Mr. Roosevelt so delights in a fight that he can enjoy seeing another fighter get his exercise at his expense. It is very funny and very interesting—a sort of battle to a finish between the cotton rabbit and the toddy bear—and there is every prospect that it will result in making Dr. Long a presidential candidate on the Mollycoddle ticket.—Harper's Weekly.

Not since Pastor Wagner has any writer got so valuable a notice from the President as Mr. Long, the "animal writer." It is delightful to see the pleasure he is getting out of it. We are not expert in knowledge of natural history, but Mr. Long's handling of Mr. Roosevelt looks to us very like the dealings of a professional with an amateur. Mr. Roosevelt is the greatest amateur on earth; an amateur of spelling, natural history, sagas, mendacity, history, farming, ethics, sports, constitutional law—indeed, of all knowledge. The range of his information is extraordinary. So is readiness in the use of it, and his ability to assimilate a new branch "while you wait." As the greatest living master of half-knowledge he is a brilliant and wonderful figure. Half-knowledge is all the most of us have about anything, and it is by no means to be despised. The bulk of the fruit of current education is half-knowledge. All that is necessary to make it vastly useful and entertaining is that its possessor should recognize it for what it is. But there or thereabouts lies a snare, and one in which, it seems to us, Mr. Roosevelt is apt to get himself entangled. Every now and then, in the confidence begotten of a quick mind and fervent energy, he falls into the mistake of thinking for a moment that he knows all about something, and on that subject lays down the law. On one subject, politics, we credit him with knowledge about all things is to know, but we do not recall any other branch in which his rating would be higher than that of an able amateur.

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A Wonderful Happening.

Port Byron, N. Y., has witnessed one of the most remarkable cases of healing ever recorded. Amos F. King, of that place says: "Bucklen's Arnica Salve cured a sore on my leg with which I had suffered over 80 years. I am now eighty-five." Guaranteed to cure all sores, by J. C. Perry, druggist. 25c.

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