

# What an Agronomist Has Done For Iowa's Corn Crop

UNTIL quite recently the term agronomist has not appeared with sufficient frequency in the public prints to win recognition as a legitimate and properly defined English word. Since the notable achievement of P. G. Holden, professor of agronomy in the Iowa State Agricultural college at Ames, who does not resent being coupled with the unfamiliar title, but, on the contrary, seems to be proud of it, the word has to be rather frequently used that it will soon seem like an old friend.

An agronomist, divested of the mystery attendant on the term, is one who is devoted to scientific husbandry. It is only within the present generation that such a science or art as agronomy has come to be recognized as a factor in American agriculture. In former years the only species of husbandry which could be certain of a respectful hearing was the practical and rather dogmatic teaching vouchsafed by a race of agriculturists whose stock in trade was tradition and whose bugbear was experimentation.

There is no better illustration of the fact that scientific husbandry is the ascendant than is furnished by the results obtained by Professor Holden, who in the last twelve months, it would appear, has earned \$10,000,000 for the farmers of Iowa. This rather astounding figure has been accomplished without the aid of machinery or any other device, but by the mere use of the old-fashioned method of farming, and cannot be ascribed to ignorance.

For several years the great corn producing plain east of the Mississippi had been showing a decided decline both in the quantity and quality of its leading product. This degenerative process was so unmistakable that the farmers of the belt were becoming disheartened. This was especially true of Iowa, which had long stood at the head of the list as a corn producing state. Almost as a last resort the farmers of that state appealed to science for relief. Their urgent demand for aid led to the engagement of Professor Holden by the state agricultural college.

The corn growers were rather skeptical as to the results likely to be brought about by a man who bore such a title as agronomist, but they were willing to make a trial of any remedy. The new wonder worker began his campaign with one of education. For a month at a time he traveled over the corn growing section of the state

and talked almost constantly of soils and preparation and culture. A special car was furnished by the railroad companies, and from the rear platform Professor Holden delivered brief and telling lectures to the farmers who awaited him at every stopping place. In this way he visited from fifteen to twenty rural centers every day, and his audiences in most of them ranged well up in the hundreds.

The professor did not employ many scientific terms, but clothed his ideas on corn growing in language which could not fail to be understood. He explained all the advanced knowledge which had been determined by experiment and admonished the farmers that they had only to open their eyes to see for themselves. He laid special stress upon the selection of seed. To illustrate how much depended upon this point he exhibited seed corn of all varieties and stages of perfection and pointed out that which was to be avoided and that which would produce satisfactory results. He convinced them by numerous reports of tests he had made with different specimens that much more depended upon the proper selection of seed than they had ever believed possible.

Then he told them how it happened that he became an agronomist—a student of husbandry. Like so many other wonderful things, it was an accident. He was teaching a district school in Michigan, and it occurred to him to get up a corn growing contest among his pupils. He induced the boys to select the earliest, biggest and most perfect ears from the field, to store them carefully and to plant only from this picked seed. The result of the contest was a surprise to everybody in the district. The boys secured a yield almost double that of their fathers, and the professor saw that he had stumbled upon a method of sufficient importance to warrant him in proceeding further in his investigations. He abandoned schoolteaching and gave himself up to the perfection of his system. In time his fame spread, and he was offered the management of a 25,000 acre farm in Illinois. The salary tendered him was so alluring that he accepted. Besides, it was the opportunity he had sought to establish the accuracy of his deductions.

The first year of his superintendency he planted 20,000 acres of corn, and when it was harvested it was found that there were over 100,000 bushels more than the same land had ever produced. More than that, the average quality of the grain was greatly improved. Such an achievement as this was not likely to pass unnoticed. The directors of the Iowa State Agricultural college were on the lookout for a man who was engaged in experimental research along the line adopted by Holden, and he was offered the chair of agronomy in the institution. This was a new departure in the school, and the chair was created especially for Professor Holden. He did not like to give

up his corn growing experiments on the big farm, but the Iowa folks promised him that his opportunity for original research should not be curtailed, and he accepted.

Professor Holden began his work at Ames by inviting the Iowa farmers to come to the agricultural college during the winter and investigate for themselves the methods he employed in the selection of seed corn and his theories respecting germination. A goodly number accepted the opportunity, and the plan bore abundant fruit. During the early spring of each year the professor continues his scheme of spending a month in a tour of education, and it is thus that his theories have been exploited in all parts of the state. Last spring his course extended over several thousand miles. Alive to the immensely profitable results of his "tail end" agricultural campaign, the railroads are eager to furnish him with all the transportation facilities he requires.

Some of the evidence of the college authorities' wisdom in securing the services of such an accomplished agronomist as Professor Holden are manifest in the Iowa crop report for 1904. For nine years the corn crop of the Hawkeye State had averaged twenty-seven and a half bushels to the acre. Last season the crop aggregated 350,000,000 bushels, 135,000,000 bushels above the yield of the previous year, and the average was forty bushels to the acre. The crop is valued at about \$9,000,000 more than that of a year ago, and Professor Holden is universally accredited with a third part of the increase. The evidence in his favor is indisputable. The regions in which he conducted his tour of education raised more corn than the others. Those in which he had the largest audiences did best of all. Iowa is proud of her agronomist, and she has reason to be.

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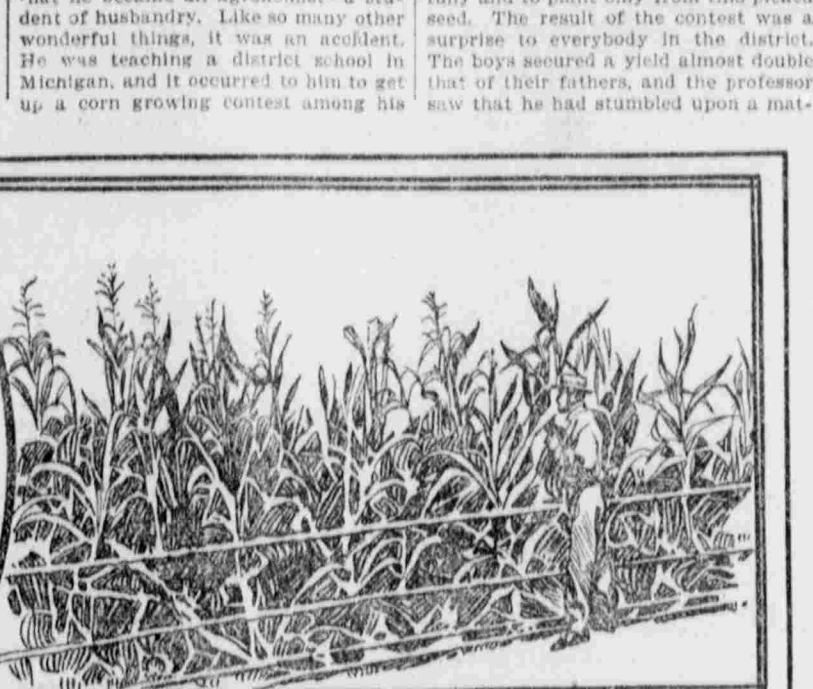
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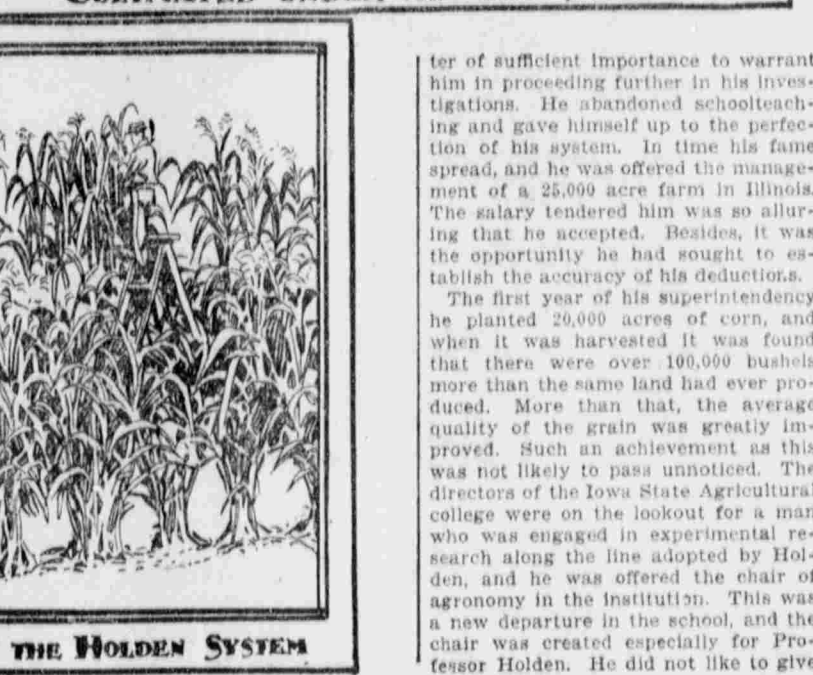
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PROF. P. G. HOLDEN



CULTIVATED UNDER THE OLD SYSTEM



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## A WOMAN'S WONDERFUL FEAT OF STRENGTH.

The picture illustrates a wonderful exhibition of feminine strength furnished by a young woman of Berlin, Germany, Miss Ada Bell, who is now traveling with a vaudeville company in South America. She holds firmly between her teeth a full sized barrel upon



which a man bearing heavy weights is mounted and walks across the stage several times with her heavy burden. It is a feat that no male athlete has thus far succeeded in mastering. Miss Bell is rather a fragile looking woman, and there is no outward indication of the immense power stored in her maxillaries. She performs the feat with apparent ease and manifests no sign of subsequent fatigue.

COMING LEAP YEARS.  
The greatest possible number of leap years will occur in the twentieth century, the year 1904 being the first one and every fourth year following up to and including 2000. In the same century February will three times have five Sundays—in 1920, 1948, 1976.

## THE LONGEST YEAR.

It Contained Fifteen Months Instead of Twelve.

THE first of the new year is an appropriate time to recall the remarkable story of the longest year in the world's history, a year that contained fifteen months.

The original cause that led up to this was an early attempt to adjust the lunar months which began with each new moon, in their relation to the solar year, says the New York Post. Twelve revolutions of the moon take 354 days, about eleven days less than a true year. The ancients tried at first to correct this by inserting, generally every other year, a special intercalary month, just as we do an additional day in leap year. In the Roman calendar, from which our own has descended, these corrections were always made at the end of the year. The earliest Roman year began in March, as we see by the numerical Latin names of several of our months—September (seven), October (eight), November (nine), December (ten)—and we still add our intercalary day in leap year just before the ancient New Year's day.

In time the months dropped their lunar character and became of irregular length, varying from thirty-one days in March to twenty-eight in February. The year had 355 days, some ten days less than a true year. Later on the first of January became both the New Year and the inauguration day of the Roman consuls. These chief magistrates of the Roman republic, unlike our presidents, were elected annually, so that inauguration day then was more important than it is at Washington, since it was actually the beginning of a new official or civil year each first of January. The intercalary month was, however, still inserted between February and March, according to ancient custom. The insertion of the intercalary months and all matters pertaining to the calendar rested in ancient Rome with the college of pontiffs, which formed the supreme priestly council, the proper observance of the festivals of the gods and other sacred duties of religion. But the pontiffs, with their chief, the Pontifex Maximus, were too often dominated by political considerations. In early times they were chosen exclusively from the patrician families. Their privilege of inserting or omitting the intercalary month gave them great political power, which politicians like, they used to the advantage of their own party and the injury of the plebeians. On personal grounds they capriciously lengthened the year when their friends held the chief magistracy and shortened it when the opposition held office.

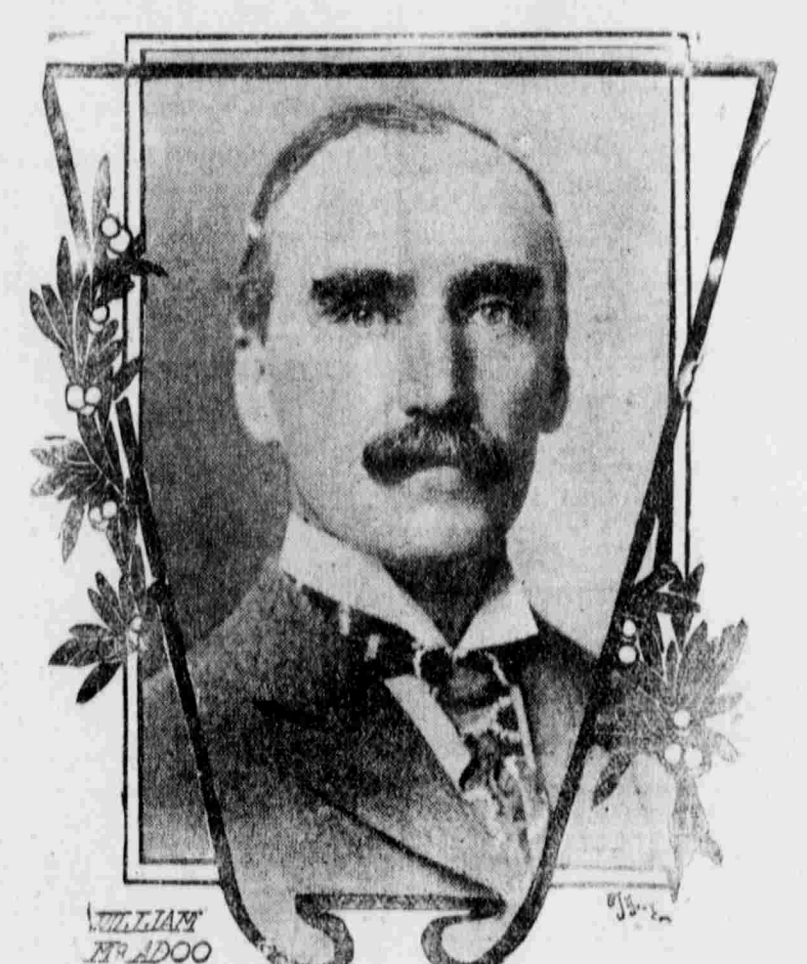
**AHEAD OF THE TIME.**  
This practice at length involved the calendar in such confusion that in Cicero's day it was three months ahead of true time. Thus the first of May fell in bleak, wintry weather at what was properly about the first of February, while the first of January came in the full summer of October. The Romans had to endure the irony of dating the year by the month of the year.

**IS YOUR BOY A DRUNKARD?**  
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If your boy or husband has fallen a victim to the drink habit, endangering his future happiness and prosperity, do not delay a moment in helping him to overcome his craving for drink. Will-power cures the liquor habit, but the desire for liquor must be satisfied.

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## THE SCANDAL OF THE NEW YORK POLICE FORCE.



Police Commissioner McAdoo made his first public statement, a reply to open criticism, a few days ago. Mr. McAdoo says he has repeatedly instructed the police that all laws must be enforced honestly and impartially. He declares that much of the recent criticism is due to a desire to defeat the present city administration at the next election. Mr. McAdoo states that he will not be the party to stir any strife between the police department and the district attorney's office.

**THE SUN'S BIRTHDAY.**  
The Roman name for this time was "Natales solis invicti" (the birthday of the unconquered sun), when the lunar year's decline was changed into a fresh accession. It is one of the greatest misadventures of the calendar that this change was not carried out. But the story goes that about 10 days later than the solstice there was a new moon, which was the starting point of the new lunar month. It was still looked upon as a good augury for a month to begin on the new moon, and it was desired that the year 703, the opening year of Caesar's new calendar, should be inaugurated under circumstances that would be auspicious and command the change to public approval. It was determined that the following January 1 should be on the day of the new moon. But as the new moon would come at different dates in other years, the good augury for that one year was secured at the loss of a far more important consideration for all future time. So our New Year is close to the shortest day, but not on it, and derives its present arbitrary position, according to this story, from the new moon happening to fall on that day in the year B. C. 45.

But, apart from this, the straightening out of the calendar was admirably managed. The undoing of the tangle was a serious matter and made the year B. C. 46 forever memorable. The first of January fell as we have seen, about three months too soon—that is, in the pleasant autumnal weather shortly after the vintage days, when were properly in the early part of October. The year was allowed to run on until toward the close of February, when the intercalary month was inserted at the usual place. This added 23 days to the year, but did not suffice. The calendar was still two months out, and the first of March was giving Rome the weather of Christmas. So at the end of November (which came at what is now the end of September), two more months were inserted, continuing between them 67 days. By the insertion of these special months, which have never since appeared in the calendar, the month of December was brought to the season in which it now falls, the two intercalary months covering our October and November. Those two months were in a sense duplicated. Thus in this year there had been added to the regular 355 days, 90 more. This made the unprecedented total of 445

continues to make thousands of victims in France and hecatombs in her colonies. Such is the gist of Dr. Lowenthal's article, and it cannot be said that he is inclined to be unduly pessimistic.—London Telegraph.

## THE SUPPLY OF IVORY.

During a recent visit to the London docks, Her Majesty, the queen, was informed that the stock of ivory then shown represented on an average, the annual slaughter of some 20,000 African elephants. This statement has been contradicted in two letters in the daily papers. In one of these Messrs. Hale of 10 Fenchurch avenue stated that at least 85 per cent of the supply is "dead ivory," mainly obtained from hoarded stores of African chiefs, who are shrewd enough to put their commodities

## UNION PRINTERS' HOME AT COLORADO SPRINGS.



The institution herewith illustrated is probably the most complete establishment of its kind in the world. Although the members of the International Typographical union have contributed more than \$500,000 to its construction and equipment, they are by no means inclined to relax their generosity. The home occupies a fine tract of eighty acres a mile east of the beautiful city of Colorado Springs, in the shadow of Pike's peak. The main building is a noble structure of white lava stone with red sandstone trimmings, and there are several other buildings of almost equal beauty. A substantial addition to the main structure is about to be erected to the memory of the late Amos J. Cummings, who was called "the printers' friend."

## VALENTINES!

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**UNHAPPY FRANCE**  
Dr. Lowenthal, who is a member of the commission which is investigating the causes of the shrinkage in census returns, is not exaggerating when he says in a recent article that "alcoholism alone is killing France." Tuberculosis, he continues, which of all diseases is the most easily avoided, is raging in France with more violence than in any other country in the world. Every year it kills more than 150,000 victims, and contaminates more than 500,000 more. Then typhoid, typhus, dysentery, scarlatina and other diseases and infectious maladies which are decreasing in England, Germany, Switzerland, Belgium, Holland, Sweden and Norway, the United States and even Italy are, on the other hand, remaining at a very high average in France, more even displaying a marked tendency to develop. Smallpox, which has nearly disappeared from every civilized land,

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