Solicited. L. C. HATNE, President. W. C. WARDLAW,

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Accounts

Pays Interest

on Deposits.

THOS. J. ADAMS PROPRIETOR.

THE OLD DAGUERREOTYPES.

Up in the attle I found them, locked in the cedar chest, Where the flowered gowns lie folded, which once were brave as the best; And, like the queer old jackets and the waistcoats gay with stripes,

Quaint little folding cases fastened with tiny hook, Seemingly made to tempt one to lift up the latch and look, Linings of purple velvet, odd little frames of gold, Circling the faded faces brought from the days of old.

Grandpa and grandma, taken ever so long ago, Grandma's bonnet a marvel, grandpa's collar a show; Mother, a tiny toddier, with rings on her baby hands Painted—lest none should notice—in glittering, glided bands.

Aunts and uncles and cousins, a starchy and stiff array, Lovers and brides, then blooming, but now so wrinkled and gray. Out through the misty glasses they gaze at me, sitting here Opening the quaint old cases with a smile that is half a tear.

I will smile no more, little pictures, for heartless it was, in truth, To drag to the cruel daylight these ghosts of a vanished youth. Go back to your cedar chamber, your gowns and your lavender, And dream, 'mid their bygone graces, of the wonderful days that were.

A BOND OF SWEETNESS.

money for it. There now!" concluded

Miss Sanders gasped. The tears

came to her eyes, but her heart bounded with thankfulness. "Mercy

on me! I never heard of such a

thing!" she incredulously exclaimed.

"I s'pose they do," answered Ad-

die, "but not as good as yours. No-

says so. You'll make the candy for

for it already, at a good price, too," returned Miss Sanders. "But does

this?" she asked abruptly.

your mother know anything about

"Why, no. She was over to Miss

and I couldn't be beholden," she said

apologetically. "I'll start on the candy the first thing in the morning."

"And I'll come in and he'p you

"Thank you, dearie. I hope I'll

Early next morning Miss Sanders

· luck favored her. Everything turned

Addie, when she called after school.

over her "beautiful luck." Of course

Addie tasted the candy, and pro-

nounced it the best she had ever cateu.

Then she set to work, under Miss

Sanders's direction, and the candy

was daintily wrapped, weighed and

Miss Sanders was very happy over

the result of her day's work. She had

labored like a Trojan, and she was

till I find out how the candy suits,

and if your uncle will want any more,'

she remarked anxiously. But even

Addie did not suspect how eagerly the

old lady prayed that Springfield folks

would find her candy to their liking

and she would be kept busy supplying

the demand. Few Goshen people had

any idea how far along on the road to

the poorhouse Miss Sanders really

After the cooking utensils had been

washed and the kitchen tidied, Addie

went home with a light heart, and

wrote her uncle a letter which that

"Another letter from Uncle Albert!"

"Your face tells that," answered the

"He says the candy sold twice as

"Land of mercy!" ejaculated Miss

"And he's going to send you a bar-

rel of sugar and a case of flavoring ex-

tracts, at the wholesale rate," con-

price off what he'll owe you. He says

that will be cheaper and better than

"Did you ever!" again exclaimed

Miss Sanders. "Thirty dollars' worth!

What great candy eaters those city

Miss Sanders was more than busy

after that. She hired a little girl to

help her, and orders for the candy,

which Uncle Albert judiciously adver-

tised as "Cupid Cream Candy," con-

tinued to come so fast that she was

obliged to make regular weekly ship-

ments, and the demand is still grow-

The dread of the poorhouse passed

own cheerful self. Addie is allowed

And Addie blushed and began to

A gallant "best man" came to the

rescue at a recent wedding, when the

ring was not forthcoming at the right

When Women Feel at Home.

Lots of women never feel really at

talk about something else.-St. Louis

announced Addie, rushing in upon

Miss Sanders about two weeks later.

'Good news in it, too!"

he say?"

gleeful reply.

gentleman cherished as a treasure.

"I'll just be on needles and pins

thoroughly tired out.

after school. I want to see how you'll

"Why, yes, especially as he's paid

make cream candy?"

nucle, won't you?"

'M awful sorry for Miss San-| cause there are many people who will ders," remarked Mrs. Abijah | pay a good price for pure, home-made Smith, "even if she is prouder | candy. He'd like twenty-five pounds ban sin. I s'pose she can't to start on, to see if it takes as well help that, though. All the Sanderson as he expects, and he'll pay thirty was that way. Poverty and pride ain't | cents a pound for it, and he sent the good bed-fellows, however."

"That's true as the Gospel," re- Addie, triumpliantly, "ain't that turned Mrs. White, with whom Mrs. | nice?" Smith was spending the afternoon. Husband was saying only yesterday that Miss Sanders must find it pretty hard hoeing. But she's got so much pride that she'd die before she'd have anybody suspect she needed help. It's "Don't folks in the city know how to too bad she's that way. Folks would be glad to help her if she'd let them."

'Good land! Don't attempt to give her anything!" cried Mrs. Smith in body can make it like you, everybody alarm, "or she'll treat you like she did me."
3. How was that?"

"Well, the other day I happened to

run in while she was eating her dinner. She was awful upset, but I made out I didn't notice anything, though it did make me feel bad when I see she hadn't nothing on the table but Smith's when father brought me the tea and a few crackers. A couple of letter, and I ran right over here the days later, I run over again with a minute I read it," answered Addie a custard pie I just made and I says to trifle uneasily. The old lady looked her, says I: 'Miss Sanders, I just much relieved at her reply. "Ithought finished baking and I brought over one perhaps it was your mother's doings, of my custard pies for you to try. Miss Lowe gave me a new recipe. She took it as nice as you please, though I was dreadful afraid she wouldn't, and I was tickled to pieces, but I didn't let on. That was on get along." Thursday, and lo and behold, my name ain't Almiry Smith if Miss San- have good luck. I'm not used to ders didn't come over on Saturday making so much at one time." with the elegantest raised cake you ever saw. The poor dear just made went to work on the candy. She me take it, though she must have watched her kettles anxiously, but starved a week to make up for it." Addie White, who had been studying out just as it should, though all her

her lessons for the next day, overheard | pots and pans were pressed into ser this conversation, and it made a deep vice. impression upon her, "Poor Miss Sanders," she sighed pityingly, "I found Miss Sanders flushed but happy wish I could help her.' A few days later Addie paid Miss

Sanders a visit. "Next Friday I shall be twelve years old, and I'm going to have a birthday party after school,' she told her eagerly, "and I thought it would be just fine if you would make us some of your elegant cream candy. We'll need a lot of it, you know, for your candy is so good everybody will want all they get. Will you make me some?"

Miss Sanders hesitated and flushed Addie was shrewd enough to guess that she was thinking of the expense compliance with the request involved. "Please say you will," she urged. "Mother says you can come over to our house in the morning and make the candy while she is doing her baking. Our kitchen is lots bigger than yours, and everything is handy, and there'll be only one mess to clean up.'

Miss Sanders looked at her rather suspiciously. "Did your mother plan all that?" she asked solemnly.

"No'om, I thought of it myself," returned Addie. "Mother didn't want me to ask you at first, because she said it would be too much for you.' "Oh, no! I like it," answered Miss Sanders, all her suspicions vanishing. "I'll come over, then, Friday morn

ing, and make you all the candy you Miss Sanders kept her word, and the delectable sweetmeats disappeared

down the throats of the Goshen young to make 100 pounds this time, and people with remarkable rapidity. The next day Addie brought a little box addressed to Mr. Albert Evans, Springfield, Mass., to the postoffice and mailed it. A letter which Addie Sanders.

sent to the same address read thus: Dear Uncle-There's the lovellest old lady lives here, but she's as poor as poor tinued Addie, "and he'll take the can be, and she's just as proud as she's poor, because her folks were rich once; but they're all dead and she's the only one of the family that's left, and she's got no money and there ain't anything she can do. She makes the finest cream candy you ever have a demand for the candy right ate, and I'm sending some she made for my hirthday party, for you to try and see if you don't think so too. I've been thinking that Springfield folks must eat lots of candy, and why can't they eat Miss Sanders. "Miss Sanders as well as anybody's else's? If I have folks must be!" her make some and send it to you will you put it in your store to sell? Please do, unele, for she's awful poor, and I feel so sorry for her. Jon't tell anybody about this; it must be a secret between you and me. Write and tell me how many pounds you want to heef my the hold work want to begin with and how much you you want to begin with and how much you will pay for it. Your loving niece,

ADDIE. "Bless her dear heart!" exclaimed the head of Evans & Co., when he had finished reading this epistle. "That girl is always thinking of some scheme to help other people.

away and Miss Sanders became her A few days later Addie put in an to have all the candy she wants at any appearance before Miss Sanders, her time, and she and Miss Sanders are face wreathed in smiles.

the very best of friends. "I do believe you had more to do "Oh, Miss Sanders, something nice has happened to you!" she excla med. with your Uncle Albert ordering the candy than you ever told me of," said "To me!" choed Miss Sanders in Miss Sanders to Addie one day. "Now, amazement. "Why nothing very didn't you?"

pleasant ever comes my way." "Well, you just listen and see," returned Addie, gayly, drawing a letter from her pocket. "It's all because of Globe-Democrat. that candy you made for any party. You know I've got an uncle in Springfield? He's just lovely, and of course I had to send him some of my birthday candy. This letter is from him. time. He drew from his tie the slen-He wants to know whether 'the person der stickpin that had been adorning who made that delicious, old-fashioned cream candy'-that's just exactly what it, and, bending the wire into ring he said, intercolated Addie, looking shape, handed the improvised wedup from the letter and nodding her ding ring to the distracted groom. head emphatically, as she saw her listener's eyes open very wide in astonishment-'would be willing to give him the sale of it.' He says he is home unless they are away visiting

sure that he can sell a great deal, be- somewhere.—New York Press.

BABY RAN THE LOCOMOTIVE.

A Three-Year-Old's Trip Alone on as "I can run an engine like papa,"

said little three-year-old Fred Evans as he was lifted down from the locomotive of the St. John's meter line at Albina, Oregon, a few days ago. He had mounted the engine at St-Johns, pulled open the throttle and remained on the seat alone on a mad ride of seven miles. The young en' gineer is the son of W. B. Evans, of St. Johns, an engineer on the motor line. He had often been on the engine, and his father had explained to him how the lever is pulled and the wheels started moving.

The engine lies over an hour at St. Johns, just by the water tank, and during this time, while Mr. Evans was at home at lanch, little Fred walked down to the engine, mounted the seat and opened the throttle wide. The machine was full of coal and water, and was ready for the road, Several people saw the boy start, but no one was near enough to catch the engine. The news was at once told to Mr. Evans, and he reached the track just in time to see the locomotire, with his boy on board, disappear around a curve. The father was wild with grief and fear, and the boy's mother was almost prostrated.

The news spread like wild fire, and the whole town turned out. Excitement was intense, women and children cried and men offered suggestions. Master Mechanic Michael F. Brady was at that end of the line and at once began to telephone to stations along the line. Portsmouth and Peninsular were notified, and men at these points tried to board the engine as it dashed by, but its speed was too great. Mr. Brady also notified the office at Albina, and a party of men ran out the line northward to meet the wild engine. In coming up the long grade toward Albina, the steam had died down a little, but the register still showed eighty pounds. John Woods, a motorman on the City and Suburban Railway, was the first man to meet the engine. He caught the hand rail and swung up, but in doing so he was dragged sixty or seventyfive feet. He at once turned off the steam, and the engine slowed down and stopped. It was then young Fred made the remark concerning his ability as an engine-driver.

The boy was not scared at all, but seemed rather proud of his feat. When the engine first dashed out of St. Johns he was frightened, and as he came through Portsmouth like a shot out a guu he was yelling lustily for "mama." After coming several miles, however, he again became brave and held his position on the seat with composure, with his hand on the

lever, like a veteran. The engine was stopped in front of the home of Dr. Davis, on Commercial street, and was quickly run back to St. Johns by Mr. Woods with the boy Fred still on board. Mr. Woods said his success in boarding the engine was a surprise to him, as well as every one else, as its speed was still considerable. The engine had made the run from St. Johns to Albina in less than half an hour.

In the meantime the news of the resone had been sent by telephone to the frightened parents, and for the remainder of the day there was great joy in all St. Johns.

Efficiency of Japanese Servants.

Japanese servants are more and more in demand every year in New York City, as their efficiency has been proved and they are looked upon as more capable than any other kind of domestic help. There is one serious objection to them which cannot always be overcome. They lavish their politeness and courtesy on the masculine members of the household in which they are employed and cannot be induced to treat the women with respect. One gentleman who had a Japanese butler said the other day that he was compelled to part with him solely because he could not induce him to say good morning to his wife. "He was always obsequiously polite to me," said his former employer, "and greater respect could not have been demanded, but it was impossible to make him realize that it old lady, beaming. "But what does was his duty to treat the women of my household in the same way. I expostulated with him on this ground fast as he expected, and he wants you and told him that in this country it was more important to be polite to send it as soon as you can!" was the women than to men. That made no impression, and after he had repeatedly refused to give my wife any more than a sullen nod after greeting me effusively, I was compelled to part with him. His explanation when he left was ingenious. He told me he was very sorry he could not get along and added that it would be a very difficult matter for me ever to find a butler any more polite to the women, as the training of a lifetime was not to be overcome is a few years, and all

> the house."-New York Sun. Pointed Paragraphs.

Japanese would probably act just as

he had done when the time came to

say good morning to the mistress of

If you are in doubt about it, don't In the world's great drama the ocean plays the principal role. A sample room is dangerous when

too many samples are taken. The man who has nothing to do but clip coupons cuts quite a figure. Every man has been, is, or will be handsome in the eyes of some woman.

The opinions of a child may be of

no value, but they are at least honest. A girl is invariably in love when she refers to the twilight as the gloaming.

The woman who paints her cheeks

and the man who dyes his whiskers fool only one person. A bachelor says that widows ween not because of the loss of a husband,

but because of the lack of one. Probably no person living ever saw a picture of Cupid that looked as though the little fellow had good com-

Figures may not lie; but when a girl looks like 160 pounds and only pulls the scales down at 116, there is something wrong somewhere. - Chi-

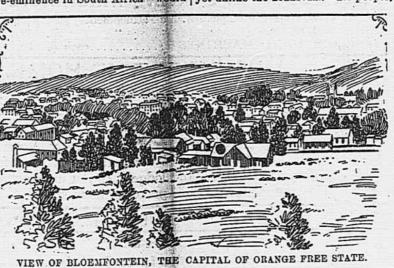
War's Millions of Victims. An army officer estimates that in the century just closing no fewer than 30,000,000 men have been killed in war in civilized countries: ___

SCENES IN BLOEMFONTEIN, CAPITAL OF ORANGE FREE STATE.

EDGEFIELD, S. C., WEDNESDAY, APRIL 11, 1900.

free and independent State, living her Oom Paul has been making for some own life and worshiping her own legislative and administrative gods. Her people, however, spoke the same | Free State, for Bloemfontein, the captongue as the Transvaaler. A shadow | ital of the little republic, was carefulof the Anglophobia that lurked on the ly fortified and garrisoned for many to vote for a president and members north of the Vaal was also to be found months before the actual outbreak of of the new legislature. The comnorth of the Orange, and Martinus hostilities. The accompanying illus- mando law is unique. This law, which Th. Steyn, the far-seeing and courage- tration will give a very good idea of was put into successful operation at ous President of the Free State, firmly the Boer fort at Bloemfontein, a spot the opening of the campaign for the believed that if the South African which, in view of recent events, has raising of Orange Free State troops, Republic were wrested from Datch an especial interest to all followers of regulates the calling out of burghers at control, either by armed force or by the present struggle between the Boer awe of Great Britain's prowess, the and the British. next victim of the slogan "British The Orange Free State is like and pre-eminence in South Africa" would | yet unlike the Transvaal. Its people,

HE Orange Free State and no quarrel with Great British has been well demonstrated by the thoroughness of the preparations for warnot her quarrel. She was a which the Government of the crafty time past. The same might be said of the United States. This constitution the doughty burghers of the Orange



Republics were bound by a treaty made in 1897, after the Jameson raid, which provided that if either State were attacked the other was to come to its assistance with its full fighting force, which at that time meanta combined army of about 44,000 men-27,000 Transvasiers and 17,000 Free Staters.

So the Orange Free State and the Transvaal joined hands. That the Free Staters were not the first to suffer by this racial coalition was due to one of those mere accidents of war or caprices of fate that can never be anticipated. Ladysmith and Colenso, Kimberley and Mafeking chanced to be the points where the storm burst. The Free Staters, while descended

from the same Dutch settlers in South Africana the Transvaal burghers, form what might be termed another brauch of the Boer family. They settled in Natal after the exodus from the Cape, but as that became a British colony, they fell back and established themselves in the country lying between the two great branches of the Orange River, known to the colonists as the



PRESIDENT STEYN, OF THE ORANGE FREE

Vaal and the Orange Rivers, and separated from the coast by the Drachenberg Mountains. The Orange River Free State, to give it its full name, forms a connecting link between Cape Colony, the Transvasl and Natal, and was for years called the Buffer State. It is a vast plateau, 3000 to 5000 feet above sea level. Its undulating plains slope from the Maluti Mountains to the Vaal River. In the south they are dotted with rocky hills, which the Boers call "kopjes." In the northern part, however, one can travel hundreds of miles without seeing a break in the horizon. When the Natal Boers took possession of the country it was inhabited by different tribes. All ex-

following districts: Bloemfontein, the world. Winburg, Southfield, Harrismith and Think of land that, without irriga-Fauresmith. The capital is Bloemlustrations), situated on a tributary of bushels of grain to the acre! Wheat, miles from Cape Town. The Orange can all be grown, while herds of catcolony of the empire until 1854, when | veldt.

be his own little Republic, the Orange like those north of the Vaal River, are Free State. Furthermore, the two simple, bucolic and sincere. An infusion of Huguenot blood makes them a slightly more active and progressive people than the Transvaslers. The republic has an area of about 50,000 square miles. Its present population is estimated to be 93,000 whites and some 140,000 blacks of the Basuto and Barolong tribes. The capital, Bloemfontein, is a curious, old world looking little city, with a railway leading



THE BAADZAAL (PARLIAMENT) BUILD-ING. BLOEMFONTEIN.

from the south into the town and again starting north. Unlike Kimberley and Johannesburg, the visitor gets no impression of mushroom growth from Bloemfontein, for the city is rich in statuary and public monuments and possesses a national museum and a well - stocked public library. The Bloemfontein raadzaal, or council chamber of the legislature, is a handsome edifice, designed in the Greek style and costing almost a quarter of a million dollars. The buildings in the city are substantial and prepossessing, for near by are great beds of freestone, admirable for building purposes. The presidency, where President Steyn resides, is also a very palatial building.

The Orange Free State is not a for-

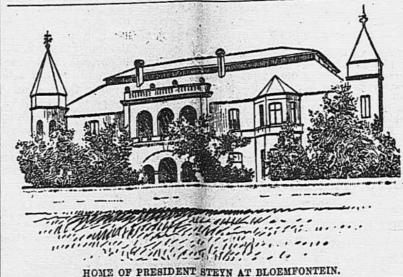
est country, for, like the Transvaal, it is very sparsely wooded. The only



BOER FORT AT BLOEMFONTEIN.

mountain ranges in the State are the Stall Mountains, which lie in the eastern portion of the republic. Practically all of the plains are well adapted for pastoral purposes. On the Basutoland border there is a golden strip cept the powerful Basutos have dis- of land, thirty miles broad and 100 miles long, which is considered to be The Free State is divided into the the best bit of grain producing soil in

tion, and with scarcely any cultivafontein (of which we give several il- tion, will raise seventy to eighty the Modder River and about 800 oats, maize, barley and Kaffir corn Free State was annexed by Great tle, horses, Angora goats, ostriches Britain in the forties, and continued a and sheep can live and flourish on the



There are three kinds of regular it was granted independence. The inhabitants then established a government of their own and had progressed satisfactorily until their President. Kruger into an offensive and defen-

sive alliance against England.

Government schools. One is the town school, another the ward school and the third the paripatetic school. Mr. Steyn, was led by President At Bloemfontein there is a very fine college, known as Grey College, where That the Boers have for months and

higher education is carried on.
The vast majority of the Free even for years been anticipating some | Staters are members of the Reformed |

Dutch Church. In fact, this is the established church of the State. Even the finiest village has its devout congregation, and the Government contributes each year \$40,000 for the support of its Dutch religious insti-

The climate of the Orange Free State is perhaps the most healthful in all South Africa. It is both drier and colder than that of the neighboring colonies, due to the fact that the veldt of the Free Staters is so high above the sea level.

The constitution of the Orange Free State is founded upon that of was adopted on April 10, 1854, and gave to everyone living in the country before the date of its boption the right all times of danger. Every male inhabitant of the State between sixteen and sixty years of age is, under this law, subject to the call of the field cornet. The number that were found available for the last call to arms is said to have been 23,000.

MASON AND DIXON'S LINE. Relics of the Famous Boundary Between

Pennsylvania and Maryland. The bill introduced in the Maryland Assembly by Senator Moses, of Baltimore, appropriating \$5000 with which to restore Mason and Dixon's Line, is wakening much interest. The State of Pennsylvania has already voted a ike amount for the purpose.

The line between the property of Lord Baltimore and the Penns aroused many disputes and much bad feeling in early times, and the King and his counselors in England could find no way of stopping the quarrels, which frequently ended in bloodshed. Finally, in 1767, two famous English astrono-



AND RICHARD PENN, AND SOUTH SIDE, BEARING ARMS OF LORD BALTIMORE.

mers, Charles Mason and Jeremiah Dixon, made the survey and ran the line which established the boundary between Pennsylvania and Maryland. The work cost \$171,000, but it settled all trouble from that time to this. The line runs along the southern border of Franklin County, and for

132 miles every five miles planted a stone bearing on the Pennsylvania side the arms of Thomas and Richard Penn carved thereon, and on the Maryland side the arms of Lord Baltimore. The intermediate miles were marked by stones, upon which were cut the letters "P" on the north side and "M" upon the southera side.

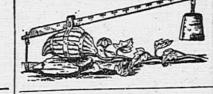
A very few of these old milestones are now standing. The one shown in the cut is now at its old position at Highfield, along the Western Mary-land Railroad. Most of them have been destroyed, and even stolen. A farmer in Washington County, Maryland, has two of them in use as doorsteps at his house.

A Queer Church. At Santa Clara, Cal., there is a Baptist church which was built of lumber made from a single giant oak tree. Under its branches the first Baptist service in that region was held, in 1853. When it was decided to build a church edifice it was thought best to use the site of the original meeting place. With appropriate ceremonies the great tree, whose shade covered an acre of ground, was consecrated for its new purpose. Workmen then cut off the tree twenty feet from the ground. This big stump was partially ollow, and was allowed to stand for the church tower. A tapering steeple was built on top of it. The upper part of the tree trunk



and its huge branches were sawed up into lumber for the main body of the church. When the church stood completed a substantial building, thirty feet wide by seventy feet deep, 1200 feet of lumber remained unused. A more sturdy building could not be im-

A St ash That Lifted 5000 Pounds. An interesting agricultural experiment is related in Success, from which this picture is taken. A harness or basket of strap iron was placed over the squash in such a manner that, in order to grow, it would be compelled to lift any weight that might be placed on it. Harnessed in this manner, on



August 21 the squash lifted sixty pounds; August 31, 500 pounds; Sentember 11, 1100; September 31, 2015; October 18, 3120, and October 31, 5000 pounds.

It is a misdemeanor to knowingly pass plugged money or to destroy United States currency in any way.

HOW PLANTS ARE BRED. | nishes the pollen and the silk of the

HYBRIDIZATION PROCESS NEITHER DIFFICULT NOR MYSTERIOUS.

Professor Galloway Describes Experiments by the Agricultural Department at Washington-Seeking a More Nutritious Corn-New Forms of Fruit. THE breeding of animals is

well understood and has

been practiced for years. much of the breeding of plants," said Professor B. T. Galloway, chief of by the wind from adjoining rows of the Agricultural Department at Washington. "It is true, nevertheless, that the breeding of plants has been carried on with most satisfactory results, mostly by private parties, but with little attempt to determine the principles involved. The possibilities in the breeding of plants are just as great as in the breeding of animals. We find all through nature a constant effort on the part of the plant to improve. There is a constant progressive tendency in all organism, animal as well as vegetable, and in the question of breeding man only takes advantage of these conditions and uses them to his own interest. The fact is that most of the improved forms of plants we have to-day are derived in a more or less spontaneous way, and have been propagated by people who have discovered them and have taken advantage of the improvements. Nature has been made to do the work unassisted. As I say, most of our cultivated fruits and plants at the present time were developed by nature, and are therefore to be put down as accidents.

"Emphasis should be placed upon the fact that plants are not fixed entities," continued Professor Galloway. "I am aware that this is the general impression, but plants are exceedingly plastic and can be modeled within certain limits to meet almost any desire. Looking at plants from that standpoint the wide field and possibilities in developing new forms will be seen. The process of hybridizing plants, as this is called, is neither difficult nor mysterious, it being simply necessary to understand the general structure of the flower to be used. Flowers have sexual organs, the stamen and pistil, the former being the male, are usually several in number. The very numerous small, yellow, powdery grains of pollen, which constitute the male fecundating elements, are born in sacks, and when the portion of the flower which bears them, known as the anther, matures it bursts and the pollen is exposed. A quantity of this pollen must be transferred either by natural or artificial means to the stigma of the female organ in order to insure fecundation. The pistils, which are the fe-male organs, occupy the center of the flower and are surrounded by the stamens. The upper portion of the pistil is usually somewhat swollen and more or less rough. It is on this portion of the pistil, known as the stigma, that the pollen must fall to produce fecundation. In the majority of plants the stamens and pistils are produced in the same flower, as in the orange, tomato and our common fruit trees, but in certain plants they are produced in different flowers on the same plant, and in others on different

"The most important feature in the work of crossing is to exclude from the stigma all pollen except that which it is desired to use. In the manipulation of orange flowers mature buds nearly ready to open are selected, and the tips carefully pried apart until the stamens are exposed. The pollen is then transferred to the pistil of the flower selected, and a manila paper sack or a gauze bag placed around it to prevent foreign pollen entering. The hybridizing process can be carried as far as the experimenter pleases. It consists of taking the pollen from the stamen and transferring it to the pistil. Where the two organs are found in the same flower it is necessary to destroy the stamen before it matures to assure that pollen from it does not interfere with the experiment. We have also carried on extensive experiments with pineapples, and have succeeded in getting crosses with certain important varieties in order to develop forms for which there is a demand. It is possible to produce plants and fruits to meet any demand. We are now working to develop a pineapple that has qualities different from anything we now have.

"These experiments I have referred to have been on the seacoasts of the the lighthouse, whose diameter at the country. Aside from these we are carrying on extensive experiments in It is inhabited by three persons. It the interior in the crossing of wheat, lies nine miles off the Cornish coast corn and other cereals. This year we and fourteen miles southwest of Plydid extensive work in Nebraska with corn. We have been trying to develop varieties that will have greater food value than those now in existence, and the surgical history of the Civil War, the food which the new varieties contain to be in different ratios from that the same time. One had his leg from which we now possess. There has the knee down carried away, but he been considerable talk of the possibil- rode ten miles to the hospital. Another ity and desirability of increasing the nitrogenous contents of corn. That raving maniac. While a third was is one of the things wanted. The ni- shot through the body, and, though trogenous contents of corn are low he did not shed a drop of blood excompared with other cereals. If it ternally, dropped dead from the shock. can be increased, even by a small percentage, it will make its food value much greater. "The experiment is being conducted

something in this way: We find that there is a marked variation in the nitrogenous contents of corn not only in different varieties but in the difthe same stalk but in different ears. the trustees of the church from buildferent grains of the same variety, on The nitrogen could be increased by crossing two varieties having other characteristics and value with high nitrogenous contents, and by selection of the ears and grains obtain a variety with higher percentage of nitrogen. By selection and by crossing corn known to possess high nitrogenous contents forms can be developed that and Puerto Rico by one New York will, if the experiment is carried far firm. The sweets preferred are chocenough, result in materially increasing the value of corn.

in corn and the plant is one of the dier's uniform. As we have before casiest in the world to cross, owing to mentioned, the Germans have found the fact that these organs of reproduct that sugar improves the endurance of tion are separate and not in the same soldiers, and issue chocolate and other flower. The tassel at the top of a sweets to the army. Jam is also good cornstalk is the male organ that fur- for men in the nold.-London Globe,

ears in the female organ. This silk is hollow, and the pollen, falling by nature upon it or placed there in crossing experiments, outers the tilk tubes at the exposed end and proceeds through to the cob, where fecundation produces the grain. When crossing experiments are being conducted the tassel is cut from the stalk where the new corn is desired and the pollen from the selected stalk is scattered upon the silk. It is customary, however, to protect the ear, the vegetable physiology division of corn or even from a distance and interfere with the plan. We have just begun the corn experiments, and hope by breeding more varieties, among other things, to extend the northern corn belt by producing hardier varie-

"With wheat we have worked longer, but in much the same way, our object being not only to increase the variety, but to produce a hardy species that will resist diseases and certain climatic conditions. We have worked to accomplish certain objects. For instance, foreigners are beginning to realize that our wheat is valuable for macaron, and our own millers and bakers have discovered that wheat grown in certain sections is valuable for crackers. It is possible by studying the peculiarities of different wheat to determine that which is best suited for different purposes, and so we are proceeding by crossbreeding to improve them.

"The possibilities of plant breeding," continued Professor Galloway, "seem limitless. The extent to which improvements can be carried is boundless. Heretofore, as I have stated, most of the work has been conducted by individuals without any parpose of establishing principles. When plant breeding is better understood it will be possible to bring definite forms of vegetable life together and produce any result desired. A strange but truthful story is related by Professor J. H. Bailey, of Cornell, of a seed man in New York advertising in his prospectus that he would furnish his customers during the next season a bran new bean with a peculiar kind of pod. This nurseryman had in his own mind decided what he wanted. It had never been produced before. He called to his assistant, an expert in plant breeding, and, by drawing, explained the kind of bean he desired. It was like a man calling a contractor, displaying his plans and specifications and instructing him to proceed and erect a house. Yes, the nurseryman had his bean, just what he wanted, and furnished his customers as he promised.

"If some of us plant breeders had lived one hundred years ago we would have been burned at the stake. There are surrounded by the he wants, breeds to produce the results desired, and when he obtains something possessing qualities that will recommend it he disposes of a seedling to some nurseryman and then resumes his work for new results. The nurseryman having the seedling possesses a menopoly of that particular variety and is permitted by the California experimenter to dispose of it as he pleases."

CURIOUS FACTS.

On a wager that he could put a collar on an ungovernable horse, a traveling man deliberately killed the animal in Main street, St. Paul, Minn., the other day, and then adjusted the collar. He was arrested.

Glass bricks are gradually coming into use. Glass will soon be used for making statues for public places. It resists the corroding effect of the weather much better than marble or granite.

The Russian photographers have a strange way of punishing those who, having received their photographs, do not pay their bills. They hang the pictures of the delinquents upside down at the entrance to their studios.

Several weeks ago a calf was born on Reuben Bairs's farm, in Thorncreek Township, Ind., and instead of the regulation hair the quadruped was enveloped in a fine coat of black wool. The calf is a fine one and is growing rapidly, and so is the wool on it. When it bass it is difficult to tell whether the sound resembles that of

The smallest inhabited island in the world is that on which the Eddystone lighthouse stands. At low water it is thirty feet in diameter; at high water base is 281 feet, completely covers it. mouth Breakwater. A very curious case is recorded in

a lamb or a calf.

lost his little finger, and he became a

There is an old church in Waukegan. Wis., which has no steeple, because of a court mandate forbidding such a construction. In 1862 a severe storm swept over the town, hurling the original spire against the house next door and wrecking it. The owner of the house got an injunction restraining ing another spire, and this order has

held for thirty-eight years.

"Candy" has been added to the rations of the American soldier. Fifty tons of confectionery have been sent to the troops in the Philippines, Cuba olate creams, cocoanut drops, lemon drops and acidulated drops. These are scaled in one pound cans of an "There are male and female organs oval shape to fit the pockets of a sol-