mous men on historic occasions. It was not, in the present case, that fire or thef: threatened the Washington relic-although it must be admitted that there is a possibility of loss by either of these means so long as it remains in its present depository. However, the destructive agent that recently aroused some of the nation's most prominent ficials to the peril of the Washington will is nothing less than the ravages of time. Until

speeches delivered by some of our most fa-

perts it would be necessary to remove the will to Washington for the interim while the work of restoration was in progress, and the county officials at Fairfax who had the say in the matter refused flat-footed to allow the document to leave Virginia.

It looked for a time as though this might block the whole plan, but finally the officials of the library of congress, who have on their staff a manuscript surgeon almost as skillful as the one at the state department, offered to send this wizard to Fairfax Courthouse and have him carry on the work there. This was done and the outcome has been as satisfactory as though the work of rejuvenation had been conducted in the well-equipped plant at the national capital. However, there were many handicaps and not the least of these was found in the necessity for transporting to Fairfax a heavy press and other paraphernalia needed for the intricate piecing of the torn and ragged pages and mounting them on the cardboard mounts, one of which has been provided for each page

Unquestionably the gratifying success which has attended this attempt to restore the Washington will to the appearance it bore one hundred years ago has been due in no small measure to the aid afforded by a number of blank sheets of paper made especially for George Washington and watermarked with his name. When the government officials first inspected the torn and tattered will with a view to applying their ingenious "first aid" treatment they at once realized that an inordinate amount of piecing and patching would be necessary and they were in a quandary where to obtain material that would match the original, for, of course, the will was written on very distinctive paper, and to patch it with ordinary paper of presentday manufacture would have resulted in only partially concealing the wounds made by time and careless hands.

There was a long search for paper that could be used with confidence that no person examining the restored document without the aid of a magnifying glass could tell where the original left off and a patch began. Finally the officials discovered in a second-hand bookstore in Washington a number of sheets of the writing paper which General Washington had manufactured especially for his personal use and this paper was used wherever new tissue had to in the locality, or suddenly becomes be grafted on the original document, with the result that the appearance of the original has been simulated so as to defy detection. Each sheet of the will has been so backed or mounted upon "crepeline" that it will stand any reasonable amount of handling and the ink of the will has been "set" so that there is little danger of further fading.

However, for all that the precious document has been put in condition to stand another century of strenuous existence if need be, it is not likely that it will ever again be called upon to suffer such neglect or abuse as in the past. The county officials who are the custodians of the will appear to be aroused to the necessity of giving it more intelligent care than it enjoyed in years gone by. To that end the pages of the will have been bound in the form of a book with handsome red levant cover and a special fireproof, burglar-proof steel safe, made specially for the purpose under the supervision of the government officials will henceforth be the repository of this relic

The attention which this restoration of the will is receiving is expected to result in the visits in future of considerable numbers of tourists and sightseers to Fairfax Courthouse, the Virginia hamlet where the will has its home-the more so since this historic spot can now be reached by trolley from the national capital. The county seat of the county where Washington lived and died has many picturesque landmarks not the least interesting of which is the old courthouse in which Washington's will was probated and which presents today the same appearance that it did on that historic day more than a century ago. The will is not kept in the courthouse but in the office of the clerk of the court, which occupies a separate building. The work of restoring the Washington will, had it been entrusted to any manuscript surgeon outside the government service-and there are only a few such in the country-would have cost \$200 to \$300 at least and it is probable that several times the latter sum might have been ande out of one-inch lumber, three strong. demanded for the service for, which the government made no charge.

#### денененененененененененененене

times larger than life size. Another find was an inscription of Sennacherib to the effect that he had "builded a house to the God Ninib." This presumably refers to an extension of the temple at the east corner, of which little now remains, but the temple well built by Sennacherib is intact.

The Temple of Assur is shown to have been of vast extent. The excavations reveal a courtyard surrounded by rooms and two immense halls. The excavators found here fragments of enameled brick dating from modern Assyrian times and showing markedly the influence of Egypt. These bricks depict battles, prisoners and soldiers on march and the destruction of fortresses.

English Shire Mare and Colt. (By G. T. BARROWS, England.) | lay of some of the breeders, and the The Shire horse is essentially the tenant farmer, or the farmer whose English farmer's own. Across the land is only rented, has all the beneborder the Clydesdale holds sway. It fits of his rich proprietor's patronage. is flattering to the English breeder to | The old country may have oldknow that America and Canada are fashioned ways, but the farmer now taking more Shires than they knows when he is well off and he knows that to raise Shire horses suc-England today is being constantly cessfully is to have a bank balance,

# IS SCIENCE

neither of the gelding or the stal- No Man Is Fully Equipped for Task Unless He Understands Anotomy of Animal's Foot-

Advance Being Made. By WM. J. KELLY. Formerly the ordinary blacksmith,

who knew very little about the underlying principles that should govern horse shoeing, was called upon to shoe horses. As a result very much of the work done was inferior and such work re-acted in many instances against the usefulness of the horse that was

The advance that has been made in this branch of blacksmithing during recent years, has been very great. The work of shoeing horses is so variable in its requirements that no

small degree of skill is required on the part of those engaged in the busi-

It would perhaps be correct to say two or three horse breeders are gath- that no horse shoer is fully equipped for his work who does not understand considerable about the anatomy of the horse's foot. He should also be able to detect defects in the animal's locomotion and should know how to shoe the horse in such a way that the evils arising from these defects will be lessened or overcome entirely.

Chickens With Turkeys.

It is downright cruelty to chickens to confine them with turkeys, as many of them will be killed by the larger

have ever done before. scoured by American buyers for the and to have no haunting fears from a disastrous season.

SHIRE HORSE ESSENTIALLY

Animal Has Improved Vastly in Recent Years, in Uniformity of Type, in Feet, Action, Pasterns and Quality of Hair and Bone.

**ENGLISH FARMERS' OWN** 

right kind of Shire horses. The English Shire horse has improved vastly of recent years, in uniformity of type, in teet, action and HORSE SHOEING has vastly better pasterns and quality

of hair and bone. The farmer's brood mare-the rent payer-is a real feminine type, namelion appearance. She is always mated to a stallion of great masculinity, possessing good, wide, strong feet, and is naturally a free mover, with flat, sound bone, of strong consittution and as big as possible.

In the large studs the greatest care is taken over the matter of suitable stallions selected. Very few traveling stallions are to be found without a veterinary surgeon's certificate of soundness.

If anything, some of the farmers who have found breeding a rapid means of acquiring wealth, are inclined to get quality at the expense of weight and substance. Shows are the best advertisement that the English tenant-farmer has for getting rid of his wares to the landlord or the rich breeder.

Shows in an English summer are as plentiful as sparrows. They are held | ness. upon the slightest provocation, where ered together

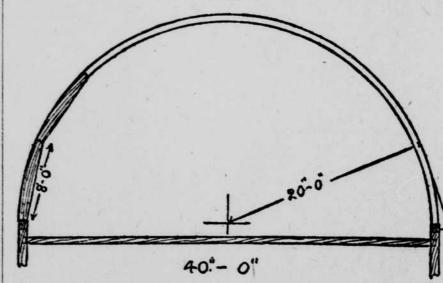
One of the most gratifying features of the Shire horse breeding in the old country, is that the rich man settles prominent as a breeder of first-class animals. He spends no end of money

on buying and maturing. These often fall into the hands of the farmer cheaply, and very often the farmer sells back their offspring

at considerable prices. Shire service is cheap in England,

when one considers the enormous out- birds.

## PRACTICAL ARCHED ROOF BARN



The accompanying plan of arched | placed about two feet centers. Nail inside straight. These should be three rafters.

roof will not need any bracing, pro- on outlook like shown on plan for corviding it is built on a wood frame. If nice. You can make them out of twoplaced on a concrete wall it would inch by eight-inch the same length. need to be fastened to the wall in which takes a little more lumber, and some manner. This arch could be we do not consider they would be as

ply thick, using eight pieces. These It would be better to use a 3 by 8 will be a trifle shorter than eight feet. inch or a 3 by 6 inch bolted on to Cut outside to circle of 20 feet radius. underside of ridge to fasten track to. It will be a little stronger by leaving as this would bring the load on two or

Apples for Home.

Transparent, Primate, Red Astrachan, golden rule. Oldenburg, Chenango, Sweet Bough, Porter Maiden Blush, Fameuse, Fall Pippin, St. Lawrence, Wealthy, Hawley, McIntosh, Jonathan, Hubbards- and Michigan will meet competition ton, Grimes Golden, King, Wagener, from the reclaimed lands of Louisiana. Yellow Bellflower, Northern Spy, Rox- A distillation plant is also in operabury Russett, Newtown, Pippin and tion. A party of expert agriculturists Winesap. In selecting varieties for recently inspecting the region were the home orchard, at least one tree of convinced that the crop can be grown each should be secured, provided in limited quantities at a good profit. space can be given. If the family is Peppermint oil was imported into the of good size and ground available,

Neighborhood Exchanges. The difficulty of exchanging tools and labor with neighbors is in the personality. Some men will expect to use borrowed tools all through the favorable weather and then return

to be of much use to the owner. In The following choice varieties of borrowing labor this kind of neighbor apples cannot be beaten for the home | will work the hired man half to death orchard. They cover the entire ap- and then in returning the labor spend ple season from late July to May of half his time telling stories. In exthe succeeding year and include both changing labor or anything else pick dessert and cooking kinds: Yellow out a farmer who will practice the

New Mint Region. Peppermint growers of New York United States during the fiscal year two trees should be bought at least of to the extent of 1,238 pounds, worth \$6,416, while the exports of American

Breeding Pens. Most breeders are willing to sell their last year's breeding pens for less than half what you would have them in a damaged condition too late to pay for the same quality in pul-

peppermint oil amounted to 161,811

pounds, worth \$288,318.

NEW OFFICE OF THE CLERK OF THE COURT AT TAIRFAX WHERE THE WILL IS NOW PRESERVED

within the past few months the public at large lid not know of the wherezhouts of the Washington will, if indeed it even knew of the existence of the paper. However, the officials of the state department and the library of concress knew its resting place in an obscure county courthouse in Virginia, and whereas they realized the futility of their ambition to ever get permission to transfer it to Washington, where it ought to repose as a great national relic, they still had sufficient interest in it to keep a watchful eye on it, so to speak,

COURT HOUSE WHICH APPEARS

NOW JUST AS IT DID 100

SEARS AGO

INTERIOR OF FATREAK

Some months ago it suddenly came to the ears of these interested parties that the willlong known to be in a poor state of preservation-was in imminent danger of going utterly to ruin. Obviously quick action and heroic measures were necessary and thereupon there was inaugurated that project which has lately witnessed the complete restoration of the will by means of a miracle of manuscript surgery and document restoration carried on by the greatest experts in the country in this highly specialized line of work.

Persons who are at all conversant with the care with which Uncle Sam fosters and safeguards all the important state and private copers of historical value that are in his keeping-for instance, the Declaration of Independence which is never even exposed to light-may naturally marvel that so priceless a trophy as the will of Washington should have been allowed to fall into decay. The explanation is found in the fact, above noted, that the will is not and never has been in the possession of the federal government. It was filed for probate in the year 1800 at the county seat of the county in Virginia where Washington resided and in that state it has remained ever since. A century of wear and tear might be expected to play havoc with almost any document and at times during this cycle the Washington relic saw some rather rough handling for so fragile an object. During the

Civil war, for example, it was carried to their services were allowed to take a hand to Richmond for safe keeping and came near being lest entirely in the confusion that attended the fall of the Confederacy.

UP

However, the worst experience of all came only a few years ago and resulted from an error of judgment on the part of the custodians of the will, who supposed that they were acting for the best. It had come about that as a result of the handling of the will the pinning together of the 23 pages and the wear along the lines of the creases in which it had been folded almost every one of the sheets was completely severed through the middle. The persons in charge of the will realized in a vague sort of way that something ought to be done and they finally hit upon the plan of sew-

ing together the severed sections of each sheet. prominent men interested in all existing mementoes of George Washington heard what had been done they were all but ready to weep. As though it were not bad enough to

handlings of the sewed sheets had caused the their way through the paper and ultimately the pages were literally in shreds. All the while the relic was on display in an ordinary wooden box with a glass cover which permitted the will to be constantly exposed to the light while on exhibition at the county seat of Fairfax county and which would probably have faded out the handwriting entirely had not the document been penned with an

attempt to sew delicate

sheets of paper, it trans-

pired that subsequent

exceptional quality of ink. It was at this juncture that the government officials who volunteered

save the wreck. The work of restoration was placed in the hands of a federal expert who has made a life work of the saving of damaged papers and manuscripts. He devoted weeks to the work and what he has wrought is little short of a miracle. In so far as the casual observer can detect the will is in practically the same condition as it was when it left the hands of its distinguished author. It is only when a page is held to the light that one realizes that, technically, the document is but

FAIRFAX COURT HOUSE VIRGINIA, WHERE

WASHINGTONS WILL WAS

PROBATED

a ghost of its former self. All sorts of obstacles were encountered in connection with the restoration of the will. It was at first planned to have the odd salvage work undertaken by the department of state, the maunscript surgeons of which branch of When the government officials and other the government had already worked wonders with the Constitution of the United States, the Declaration of Independence and other documents. However, in order to get the benefit of the skill of the state department's ex-

perfectly preserved. It is constructed of two or three layers of bricks set in asphalt and

> cations out of the ruins of works constructed by his predecessors, as the excavators found brick with a four lined inscription of Heriglissar, in which this ruler, whose inscriptions have hitherto been missing, describes himself as "the accomplisher of good deeds."

The excavations made in Assur by Dr. W. still more important results. The complete ground plan of the Temple of Assur was laid

500 years later under Salmamassar I., who, however, reconstructed it on exactly the old

Many important finds were made by Dr. An-The beginning reads as follows: "Nebuchad- Babylonian procession street. The pavement drae. Near the door in the southeast front

#### Temples of Babylon

interesting account of the past year's excavalaid bare several hundred meters of a wall duk, the god who created me." about 35 feet thick, broken by numerous door coffin of burned clay, on the lid of which was a relief of a bearded head.

built of brick, faid in asphalt. Here were also found several fragments of tablets with cuniform inscriptions from the time of Nebuchadnegrar. This discovery enabled the excavaed some time before.

The legend proved to refer to the building feet. of the Zigurrat, the temple tower of Babylon.

The Deutzche Orient-Gesellschaft gives an gods, establisher of Esagila and Ezida, son of Nabopolassar, of the king of Babylon, am L tion work in three different parts of Babylon. When Marduk, the great lord, elevated my in the town quarter known as Kasr were head I abased myself reverently before Mar-

After this Nebuchadnezzar goes on to boast openings which were originally flanked by that he made the temple "brilliant as the day towers. The most interesting find here was a with bitumen and blue glittering bricks" and that for the same end he has had mighty cedars prepared. The inscription ends with Near the north wall of the quarter known Nebuchadnezzar's prayer that Marduk will as Sachn was discovered a system of drains, reward his plous deeds by granting him "eternal days.

Work was also carried on at the town wall built by Nabonid, the last king of Babylon, who reigned 555-538 B. C. About 400 meters tors to complete fragmentary tablets discover- of this wall were uncovered. The wall is about 25 feet thick and has a tower every 60

The main gate lies in the line of the great percar, king of flabylon, reverer of the great of the precessional street at this point is were found remains of a relief of a buil three

covered with a thick coating of asphalt. King Nabonid, it is proved, built his fortifi-

Andrae in the season April to October yielded

bare, and the history of the great building pushed back to the third millennium, B. C. This makes it the oldest Mesopotamian temple so far discovered. The temple was renewed by the King Samsi-Adad about 1800 B. C., and it was burned down

## Many Miles of Champagne

Where Wine Is Stored, Worth While.

Visit to Immense Caves at Rheims, famous jackdaw. But there are few who know Rheims as the center of the champagne trade, and the home of the most famous champagne firms Rheims is perhaps best known be in the world. If you look in the city cause of the most beautiful relic of directory you will find no less than Gothic architecture embodied in its ninety establishments for making cathedral. The town's association champagne, And these are not the with the career of Joan of Arc is an only inhabitants who are connected other link between us and it. Some with the industry, for besides twenty

the wine is stored is worth while. Thiers, Carnot, Washington, Paris, Some of them extend for miles into New York, are more than a quarter the city, and many parts are com- of a mile in length and lead to some pletely honeycombed with them. In two hundred large rooms. In these order to vary the temperature they cellars one may expect to find rows are often three stories deep under the of dusty bottles covered with cobstreet level, and one may descend to webs and spiders. But in this he will them by a fine flight of steps, some be disappointed, for every part is as operate in time of war. The tunnel hundred and sixteen, which have been faultlessly clean and fresh as conmay even remember the tale of its firms which are employed in making cut from the chalky soil. Though the stant care can make it. Here are penhagen and Maimo.

lons of champagne, or from thirteen to fourteen million bottles.

Tunnel Between Sweden and Denmark the later varieties. would probably be made between Co-

the corks used, there are almost as caves extend for more than ten miles, often stored as much as 528,000 galmany more who are engaged in the they are constantly being added to. machinery necessary for the industry. Some, the corridors named after vari-A visit to the immense caves where ous prominent men or cities, such as

> The Swedish parliament is at present discussing the projector's submarine tunnel between Sweden and Denmark. The undertaking is intended to enable the military forces of the three Scandinavian countries to co-