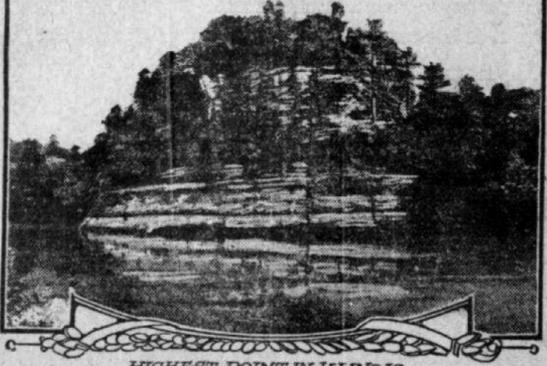


STARVED ROCK A MONUMENT



HIGHEST POINT IN ILLINOIS

IN purchasing Starved Rock and its surrounding acres for a public park, the state of Illinois has done more than preserve the scene of an Indian tradition. It has made permanent a monument of the earliest recorded history of the upper Mississippi valley. The park includes the site of the oldest fort and permanent European settlement in the valley and part of the site of a great community that even now would rank with the largest cities of the state. The old and all but forgotten Kaskaskia and its suburbs were larger than the present city of Alton, larger than Freeport, twice as large as the nearby city of Ottawa.

When it is recalled that only a century ago the stockaded Fort Dearborn that had been Chicago was a scene of desolation it is difficult to turn the mind back still another century and more to the beginning of Fort St. Louis, on the Illinois river. Perhaps that is why the Indian legend of a later date has become known, while the recorded history of the place has been forgotten and Fort St. Louis has become Starved Rock.

It was in the summer of 1673 that Joliet and Father Marquette entered the Illinois river at its mouth after a trip down the Mississippi from the Wisconsin. They were on their way back to eastern Wisconsin by way of Chicago and stopped only three days at the Indian village of Kaskaskia, which stood on the flood plain of the Illinois, across the river and a short distance west from a great white rock, forest capped, that rose sheer from the water at a height of 125 feet. The village then contained 74 lodges and nearly ten times that number of families. The lodges were permanent structures, not the tepees of the western nations. The Indians were Kaskaskias, a tribe of the Illinois tribes, whose village was larger than that of the Peorias, another Illinois nation, who lived near where the city of Peoria now stands.

The great rock above the village did not attract special attention. It was one of many rocks and, moreover, it was the Indians that interested Marquette, whose report contains the only first hand account of the voyage, since that of Joliet was lost in the St. Lawrence river. To these Indians Marquette endeavored to return late in 1674. Winter and sickness caught him on his way. He and his companions built a cabin on the bank of the Chicago river at what is now Robey street and remained there until the spring, when they descended the Desplaines and Illinois to Kaskaskia and there established the mission of the Immaculate Conception of the Blessed Virgin.

On the meadow between the river and the present city of Utica Marquette raised an altar and displayed four pictures of the Virgin before 500 chiefs and old men, 1,500 young warriors and perhaps 4,000 women and children, a large audience to be gathered there nowadays. Soon after Easter he and his two companions made their way back to Lake Michigan by the Kankakee and St. Joseph rivers. On the bank of the lake Marquette died.

Alouez was Marquette's successor at the mission of the Immaculate Conception. He found at Kaskaskia 351 lodges. Before the coming of La Salle in 1679 he left the place and La Salle found a deserted city. The inhabitants had gone hunting farther west. He went on to Peoria lake, built Fort Crevecoeur there and returned, leaving his lieutenant, Tonty, at the fort. It was not until this return voyage that the great white rock caught his eye. It must have impressed itself on his mind as he sat in the deserted village across the river, resting on the journey northward. Here was a fort that was no Crevecoeur, a lofty rock, inaccessible except at one point, and there only by a narrow and difficult path, out of arrow range from the other rocks and the bluff a quarter of a mile away. So he sent word to the Tonty to examine the rock and to remove thither from Peoria lake if he thought it well to do so.

But this establishment was not to be easily made. There were troubles with the Indians and the French assistants, and it was three years later that La Salle and Tonty began the fortification of the rock. The only approach to the half-acre area of the summit was protected with earthworks and a palisade, and within the palisade were built cabins after some of the forest growth had been removed. Civilization took its stand in the midst of the wilderness.

At the foot of the rock, on the level bank of the river, a bowling alley was laid out for the Frenchmen. Around this were other shelters, of French and of Indians. The fort had become a suburb of Kaskaskia, or, as the French called it, LaVantum, across the river. This town of the Kaskaskia Indians was added to by arrivals of other tribes, especially those of the Illinois nation. The original settlement was west of where the Utica bridge now crosses the river, but the additions spread to the east along the

low bank of the stream. Including the Indians gathered about the foot of the rock, La Salle estimated the population at one time to be 20,000 persons, 4,000 of whom were warriors.

Grain Abounded in Broad Fields. To supply this city, the largest community of Indians that has been recorded in the Illinois country, there were broad fields of grain, for the Illinois were a farming people and the rich flood plains of the Illinois needed little tilling. Tracts of land were granted to a score of Frenchmen. The river provided fish; in the swamps downstream were water fowl; the prairies were dotted with buffalo.

The population lessened or increased from season to season. La Salle died, murdered in far off Texas. The mission was removed to the Mississippi river in 1700. Despite the exhortations of Father Gravier, the inhabitants of Kaskaskia fled to this new sanctuary from the Iroquois. Hence the new Kaskaskia on the Mississippi, which became the first capital of Illinois. The rock was left deserted except by the garrison and the traders. In 1702 the garrison was withdrawn and twenty years later Charlevoix, passing down the river, saw only the rotting palisades. Of the 20,000 Indians none remained. But the story runs that Tonty, white haired and feeble, was carried back to his rock to die among a few wondering red men and be buried in the swift water below.

The old fort still served as a stronghold for the Peorias. In 1722 these Indians were besieged on the rock by the Foxes and their allies, but the siege was raised. In 1769 at Cahokia came the murder of Pontiac, leader of the Potawatomes and Ottawas, by a Kaskaskia Indian, and the revenge of the Potawatome nation. The Kaskaskias and the other Illinois tribes were massacred. A few Peorias were trapped on the rock and there, starving, defended the single approach. One dark night those remaining made a sortie and about a dozen—accounts differ as to the number—accounts recall them except bits of bone, pottery and flint that are plowed up on the site of the ancient city, and the silent rock standing unchanged through the centuries and breasting the flow of the river.

Digging to Muska. It would seem that the old principle, which has said to have been so often applied in war and in peace and which has a deep psychological basis, that tireless muscular labor is more easily and regularly performed and in a sense guided by the rhythm of musical sounds, has been successfully applied among the laborers on the Panama canal. One of the "bosses" of work gangs has gained distinction by outdistancing all his rivals in the amount of work done on account of his cleverness in developing and leading songs that inspire his men with energy and cause them to forget fatigue. Singing at work has become general all along the line, it is reported.

Hearing and Smell of Fishes. Fishes smell well and hear acutely. The senses of smell and hearing depend mainly on internal nerve and brain structure, the external apparatus in different animals being helpful and contributory but not essential. The fact that fishes have no external nose and ear formations does not prevent their internal mechanism from operating. In some fishes the swim bladder performs a part in the communication of sound, and certain fibers in the front part of the head perform another part. Their smelling apparatus also is well adjusted for practical use. A fish has no external organ of smell, but it will turn up its nose at an offensive bait.

Young Girl's Narrow Escape. A young blind girl had an exciting adventure with an unruly cow in her home at Moseley street, Burton-on-Trent, England, recently. The animal, having escaped from the driver's control, entered the house by the back door, and the young woman, imagining the intruder to be a human being, called out: "Who is it?" Then, realizing that something was wrong, she walked past the animal and got safely outside; the cow, meanwhile, rubbing round the rooms, breaking the furniture and smashing crockery to fragments.

The Parasitic Female. The parasitic female is found among the rich, the poor and the middle class. She contributes nothing to her race, her home or the world's work. She impoverishes her race because she bears no children. She means nothing in her home because all its duties are performed by others. And she contributes absolutely nothing to the world of art, science and industry. She lives off of others, and like all parasites, animal or vegetable, she weakens the vitality of those on whom she fastens herself.—McCall's Magazine.

GOOD CROPS FOR PIGS

Interesting Report of Experiments at Arkansas Station.

Result Shows Pork Can Be Profitably Raised by Feeding Rotation and at the Same Time the Soil Can Be Improved.

In many sections of the country pigs are allowed to run and are fed corn or grain in addition to the food they can gather. In regions where corn is not abundant and is not sufficiently cheap for this purpose there has been considerable interest in studying forage crops suited to pasturage for pigs.

In connection with this the effort has been not only to learn what green crops are relished by pigs and would produce satisfactory gains in weight, but also to arrange the crops in such succession as to furnish food throughout the season. Several experiment stations have been working along these lines with reference especially to the conditions and practices of the south.

An interesting report of experiments in fattening pigs on a succession of forage crops has been published by the Arkansas station. Rye, red clover, sorghum, peanuts, and sweet potatoes were the crops used in the test. They were grown on a worn soil—a sandy loam deficient in vegetable matter—which in a good season would produce about twenty-five bushels of corn to the acre. The pigs were confined in a movable pen while grazing. A grade Poland-China sow with five pigs was turned into the rye March 23. The rye had been sown the fall previous and was about six inches high. The sow did not relish the rye and was given some corn in addition. Comparatively little rye was eaten, and after a week the pigs were put on red clover, which was in its second year. The pigs grazed over it twice. They were fed some grain in addition. The sow remained with the pigs until the middle of May and a record was kept of all the food she consumed.

Toward the end of July the pigs were put on sorghum which had been planted about the middle of April and was headed out and in bloom. They showed a preference for the sorghum heads and toward the last would not eat the stalks, which had become rather hard. Late in September two of the pigs were put on sweet potatoes and three on peanuts. The sweet potatoes were not relished, and the pigs did not make satisfactory gains on them. After two weeks they were therefore put on peanuts with the

other pigs. They grew very rapidly on peanuts and continued on this feed until the ground froze in December. They were then fed all the soaked corn they would eat until they were slaughtered, January 3. During the test the pigs had grazed over one-fourth acre of clover, one-fourth acre of sorghum, and two-fifths acre of peanuts, making in all less than one acre. The fact that the pigs were in perfect health during the test indicated that the crops were well suited to them. In addition to the forage crops the pigs were fed some grain until they were five months old to insure rapid growth. They were also given a mixture of charcoal, salt, ashes and slacked lime.

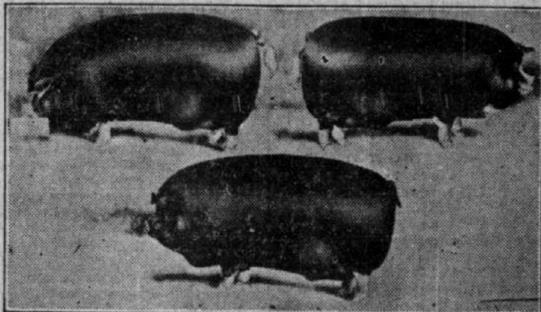
At the close of the test the pigs weighed 1,215 pounds, the average weight being 243 pounds. During the seventy-two days on which peanuts or sweet potatoes were fed the average daily gain per pig was 1.31 pounds. During the thirty-one days on which corn was fed the average daily gain per pig was 1.15 pounds.

The total value of the grain fed the pigs and the sow (while she ran with them) was \$10.61, and the value of the green crops was \$4.50. The rent of the land was assumed to be \$3, making the total cost of fattening the pigs \$18.11. The average cost of producing a pound of pork was 1.5 cents. No estimate was made for the labor of tending the pigs since, in the author's opinion, it was too small to take into account.

The pigs were slaughtered at the end of the trial January 3. They were valued at \$3.25 per 100 pounds, making their total value \$39.48, and a profit of \$21.37. Nothing is said in regard to the quality of the pork.

When pigs are fattened on forage crops the manure remains scattered over the soil. This, together with the fact that clover and peanuts are plants which increase the nitrogen in the soil, is a great advantage. In the opinion of the author red clover, sorghum and peanuts were the crops best adapted for rotation, since they were cheap and easy to produce and their season of maturity convenient. With the above rotation of forage crops only 6.5 bushels of corn was required to produce a pig weighing 243 pounds at ten months old.

The experiment shows that under the conditions existing in that region pork can be profitably produced by feeding a rotation of forage crops, and that at the same time the soil can be improved. The importance of using good stock instead of scrubs is urged. Alfalfa, oats and cowpeas are briefly spoken of as forage crops which might also be valuable for fattening pigs. Work at some other southern stations has shown chufas to be also well adapted to this purpose.



Three High-Grade Poland China Hogs.

GUARD A TILE OUTLET DRAIN

Live Stock Do Considerable Damage Unless Some Provision Is Made to Protect Opening.

Considerable damage is apt to be done by stock tramping on or about it, where the outlet of the tile drain



Protected Tile Outlet.

comes into the open, unless some provision is made to protect it. Drive a few stakes at suitable distance from the outlet and stretch barbed wire over them.

RAISE CHICKENS IN ALABAMA

Splendid Results Secured by Giving Plenty of Fresh Water, Ventilation and Feed.

(By J. L. BROWN, Alabama.) I have splendid results with my chickens and I want to tell how I do it. First of all, I always keep before them plenty of fresh, clean water, so they can have it at any time of the day. Hens drink frequently when they have the chance, and often they are half famished by not being able to get it when they need it.

The next thing is to have a good, perfectly dry and well ventilated roosting house with the floor as clean as the kitchen—no dampness, no bad smells, no dust from day to day. In the morning I give my chickens a mash of corn meal slightly wet, and in the evening, just before going to roost, a feed of corn or oats. For green feed I give them oats or rape or cabbage, and I certainly do set the eggs.

Soil for Strawberries.

Strawberries do not need lime; in fact, they seem to thrive best on acid soils. An experimenter goes says he finds that strawberries do best for him where he cannot start clover without a heavy application of lime.

FARM NOTES

Bank barns are usually dark and damp. Gypsum makes a good absorbent for barn floors.

There is no animal more unprofitable than a poor sheep. The cheapest way to feed young pigs is through the sow.

Milk vessels should not be allowed to become dry before washing. In order to have good-sized sheep grow them rapidly while young.

It is poor practice to run valuable colts in large bunches at two years old.

The real dairy cow turns her food into milk and butter-fat instead of meat. You can hardly push pigs too fast, providing you use the right kind of food.

It is the income from each sheep that should determine the value of the flock. Strong, vigorous pigs when a week old will care for themselves, barring accidents.

Soot dusted on melon plants when the leaves are wet with dew discourages insects. Dandelion green are a fine thing for the chicks. And it helps to get rid of the worst lawn pest we have.

Fancy points do not count so much. Utility is first, last and all the time when it comes to keeping cows for profit. Cows that are well cared for and well protected are not seriously affected in their yield by the cold weather.

If you are doing much hauling be careful not to overload the teams when the mud is deep or the roads slippery. A strain may quickly ruin the best horse you've got.

Don't be one of the farmers who put the little things off till tomorrow. There is no gain, while the loss at the end of the year would buy some pure-bred hogs or a Shorthorn bull.

Culture of Rhubarb.

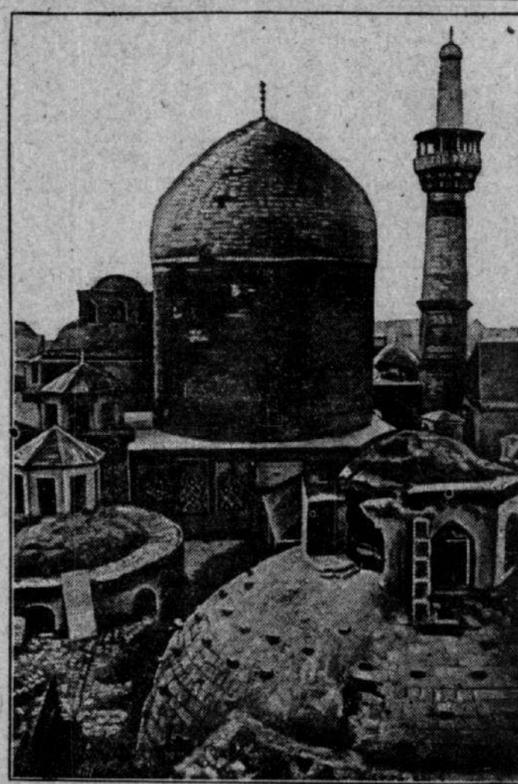
Is the rhubarb failing to make a satisfactory growth? If so, it likely needs manure. Apply plenty of manure and top-dress with nitrate of soda at the rate of 150 pounds to the acre. Subsequent dressings of nitrate may be needed to obtain the best results.

Care for Young Hogs.

If young hogs are kept in close confinement, fed heavily on corn alone, they will most likely develop a leg weakness, as they require nitrogenous foods, in which skim milk should take a large part, in order to grow good, solid bones.

Things Queer and Curious

Mosque Damaged In War



When the Russian troops invaded the province of Khorassan, in northeast Persia, they attacked Meshed and bombarded the famous and historical mosque containing the tomb of Iman Riza, son of Ali and founder of the Shiites. The golden dome of the mosque was badly damaged by the Russian shells.

SHIELDS FOR THE POLICE



During the great Liverpool riots of 1911 the hooligans of that city armed with broken bottles, brickbats, iron fragments and other missiles, inflicted severe damage on the police. One citizen, who was serving as a special constable, invented a device to protect the officers from such attacks, a shield of peculiar shape with a slot through which the constable can see where he is going without exposing his face. The shield has received the general approval of the Lancashire constabulary.

YIELD OF STRANGE TREES

"I find nothing more interesting than nature's odd ways in trees," said a man whose hobby is trees. "Thus in Madagascar is found the traveler's tree, so called because it provides a supply of pure fresh water on demand to the thirsty wayfarer. The body of this tree rises to a height of about 30 feet, at which height leaves radiate from opposite sides of the stem. These are of great length and stand on a leaf stalk some six feet long, spread out like an immense fan.

In the dry season, when all seems arid and parched, the traveler has but to pierce one of these trees just at the point where the fanlike crest has its beginning on the stem, and out of the wound will flow pure, fresh, cool water. The tree has other uses. From the leaves are formed thatched roofs of the houses of the dwellers on the east side of the island. The outside

MONKEY USED IN HERALDRY

A list of the animals having a place in heraldry would embrace not only all the well known beasts, but many weird and impossible creatures, such as unicorns, griffins and dragons. But, so far as is known, there is but one instance of the monkey's admission into the select circle.

Three monkeys figure in the Leinster coat-of-arms. They stand with plain collar, chained. The motto is "Crom-a-boo," which means "To Victory." This device was adopted in the year 1316 by John Fitzthomas Fitzgerald, and an interesting story attaches thereto.

It appears that when the earl of Leinster was an infant he formed one of the residents of Woodstock, now pertaining to the Marlborough family. There was a fire in the castle, and in the ensuing confusion the child was overlooked. When he was remembered, those who dashed for the nursery found it in flames. The child was, however, soon found in one of the towers, clasped in the arms of a big ape, which, with considerable courage

bark of the tree is laid for flooring and the leaves again, when beaten flat, serve not only for tablecloths but for plates.

In Venezuela there is a vegetable wonder called the cow tree. It grows where scarcely another vegetable thing thrives. Its leaves are leathery and crisp, but by making incisions in the trunk a peculiar grayish fluid resembling milk exudes, sweet and of a peculiarly agreeable, balmy odor. It is a puzzling thing to a stranger in that land to see the trunks of these trees bristling with plugs, as he will a nut from the kernel of which the natives produce butter which, so African travelers aver, much resembles butter made from cow's milk, and which will remain sweet for a year or more.

The manna tree is so called because from a sap which flows after tapping the tree in August a sweet gum is left by evaporation, which has no little food value. The tallow tree of Malabar yields from the seeds of the fruit an excellent tallow, which serves as an illuminant.

That is a wonderful tree, too, which flourishes on Fierro, one of the largest islands of the Canary group. Fierro is so dry that not even a small rivulet is to be found on it, and for that

Giant Sun-Fish of California



This monster sunfish, weighing a ton and a half, was caught off Santa Catalina Island, California, by W. N. McMillan on a relatively light rod and line. These sunfish, like the tuna and barracuda, are fighters, but clumsy and are more dangerous in their terror than in their anger.

had fought its way through the smoke and flames in order to rescue its young friend. It had carried the child to the top of one of the towers, which, its intelligence told it, was the safest place in the burning structure.

In recognition of this act of devotion the earl, when he attained manhood, actually discarded the family coat-of-arms and adopted the monkeys for his crest, and the family has retained it to this day.

SWAN BANQUET FOR HUNTERS

One of the most prolific writers on natural history in eastern England, entertained the other day, at his home, Ibis house, Yarmouth, at a swan banquet, all the veteran wildfowling and punt gunners who for years have made a happy hunting ground of Breydon Water, the vast tidal estuary near Yarmouth, which has yielded more bird trophies to the collector than any similar expanse of mud flats along the east coast. The royal bird, graced the board had been shot on the wing, and weighed 21 pounds. It was roasted, being enveloped in a

absence of water a curious compensation is made by nature in providing a tree such as is not found elsewhere. The leaves of this tree are long and narrow and they remain green all year through. The gentle mystery of this tree, as travelers assure us, is a cloud that hovers over it constantly, and condensing into water, saturates the leaves, from which the moisture drops continually and keeps the cisterns which are in excavations beneath them always well filled with water. These rain trees are few on the island, which, it is said, accounts for its sparse population.

"We have in our own country at least two wonderfully eccentric stations in trees, the soap tree of Florida, although it is not indigenous there, and the witch tree. The latter is seen see them, for the drawer of milk from a hole he has made in a tree plugs up the hole when his needs are supplied to prevent unnecessary waste of the milk.

"Three other useful trees are the butter tree of central Africa, the manna tree of Calabria and the tallow tree of Malabar.

"The soap tree was brought from Japan, where it is alleged to be a common growth. It is a prolific bearer of berries about the size of our common black cherry, and of a yellowish color. From these berries, boiled with the seeds they contain, a good soap is fabricated. In Japan the berries are used as a substitute for soap just as they come from the tree.

"The witch tree seldom grows higher than ten feet. It has numerous branches and intertwining twigs, the foliage is so luminous that at night it can be distinguished plainly a mile or more away. This tree is evidently a species of bay, and the luminous property of its leaves parasite. This consists of a gummy substance which, on being transferred to the hand, by the rubbing of leaves upon it, imparts to it the same phosphorescent glow.

FAMOUS WELL OF BEERSHEBA



At Beersheba, in Palestine, are two circular wells of fine, pure water, one of which is known as Abraham's well. Beersheba means, "Well of Oath," or "Seven Wells," and according to one story the place received its name because of the alliance formed here between Abraham and Abimelech, King of Gerar, which was ratified by a gift of seven ewe lambs from Abraham to Abimelech as a witness of the fact that the well was dug by Abraham.

"COST OF LIVING" IN 1900

Even London's "zoo" is not free from the pressing problem of the increased cost of living, for the annual report says that an "increase in the total cost of provisions is due partly to increase in price and partly to additional quantities" of certain foods. The year's housekeeping accounts included: 132 tons meat, 20,000 lbs. potatoes, 61,000 lbs. whitefish, 10 tons haddock, 1,500 pints shrimp, 7,000 sparrows, 115,000 bananas, 177 loads hay, 11,000 oranges, 22 cwt. rice, 4,000 lbs. grapes, 56,000 eggs.