

FARM AND GARDEN NOTES.

ITEMS OF INTEREST TO THE FARMERS.

First Few Days of the Pig.—Raising Chickory. Isolation for Milk and Cream. Farm and Garden Notes.

SHEARINGS.

When the sheep's feet seem to be tender apply a mixture of pure lard or vaseline with one-tenth part of acetate of copper well ground with it. This will destroy whatever poison may affect the feet through the effects of impure matter in the land. Decaying matter of any kind, especially if it is wet, will quickly rot the sole of the feet and cause lameness, which if neglected may have serious results.—American Farmer.

ISOLATION FOR MILK AND CREAM.

Milk is sure to absorb any odors with which it is brought in contact. Cream and butter having a greater proportion of fats absorb odors even more quickly than milk. This fact emphasizes the necessity of keeping both milk, cream and butter out of reach of foul odors of any kind. This can hardly be done while the milk is kept where the odor of cooking vegetables of all kinds can reach it. Almost any kind of odor from cooking, when combined with butter-fats, soon becomes exceedingly offensive, as in the fat the character of the odor is greatly changed.

KEEPING COMMERCIAL FERTILIZER.

Most farmers in purchasing commercial fertilizers buy only what are needed for immediate use. This is partly to escape losing the interest on investments not in use, but mainly because there is a popular idea that fertilizers deteriorate by exposure to the air. If they are kept from becoming wet they will be as good the second year as the first, except that absorption of moisture from damp air will make the mineral harder into lumps which make it difficult to drill. The best way to keep any surplus of mineral fertilizer is to scatter it from time to time over the stable manure heaps and apply it with that. Both the stable manure heaps and phosphate will be made more efficient by this combination, as each kind of fertilizer will supplement the deficiencies of the other.—Boston Cultivator.

BURYING STONES.

The only way to get rid of loose stones on farms where they are numerous is to bury them. Years ago it was a common practice to pile the stones in great heaps, usually if inside the field, around some big tree, which the stones would kill after a few years, or beside the fence in the corners of the fields. Almost always after a few years the stones will be found in the way where they have been placed and have to be moved again. Burying the stones disposes of them permanently. In many places where the land needs underground drains making the stones into underground conduits is the best disposal that can be made of them. A well-laid stone drain will never fail to carry water if its outlet is kept open.

FIRST FEW DAYS OF THE PIG.

During the first few days the pigs should be confined to the farrowing pen, or at most, allowed to run in a small, dry lot. They will do better to be confined to the lot until they are at least three weeks old. Just as soon as the pigs show a disposition to eat they should be encouraged in so doing. A small place should be cut off from the lot, so as to allow the pigs, but not the mother, to enter, and in this little lot should be a shallow feed trough. If the pigs are getting plenty of milk from their mother, as they will, provided she is a good brood sow, there is nothing better for them than soaked grain. Dry, hard corn will soon make their teeth sore. An abundance of this soaked grain should be provided, but what is left should be removed at least twice a day and fresh grain put in. If a little sweet skim milk can be given it will add to the growth of the pigs. This may be continued until weaning time, when a decided change in the feed becomes necessary. This is the most critical period of the pig's life, and on his management at this time largely depends his future usefulness. If checked in his growth, he will probably not recover soon enough to give the best results, whether kept to grace the breeding herd or to fill the pork barrel.—Mississippi Experiment Station.

RAISING CHICKORY.

It seems that the farmers in Western Nebraska are following the advice we gave to farmers generally some time ago, and are turning their attention to raising chickory. It is the best substitute for coffee known, and in many parts of Europe is preferred to coffee. All real "French coffee" has more or less chickory in it, and those who have grown accustomed to the mixture prefer it to pure coffee. Very much of the coffee we use in this country is adulterated with chickory, and substantially all the "coffee extracts" have chickory in them.

We import about 10,000,000 pounds of raw chickory every year, and about 500,000 pounds more "burnt, roasted, ground or otherwise prepared." The manufacture of chickory has become so important in this country that the manufacturers secured a duty of two cents a pound upon the manufactured product, while the raw comes in free. The Nebraska farmer gets all the

way from three to eight tons an acre of chickory roots, and the price ranges as high as \$10.50 a ton. There is a good market for it, and it will be quite a while until we raise enough to meet the home demand.

Chickory is a plant of the dandelion family, and will grow anywhere that dandelions do.—American Farmer.

HOME-GROWN CELERY.

We know many farmers who have grown to like celery, and who buy considerable amounts every fall and winter, but without a thought of growing it themselves. They keep from planting celery under the impression that its cultivation, and especially the blanching of the leaves, is a difficult operation. Celery used to be grown much more extensively than now. The deep trenching that was once thought necessary is now considered injurious, as sudden showers in summer will fill the trenches with water and half bury the young plants in mud before they have fairly begun growing. It is much better to plant on level surface, and blanch the stalks by excluding light with boards set against the rows of celery on each side. The soil needs to be as rich as it is possible to make it, and with plenty of water so that the growth shall never cease. If there is any stoppage of growth, the celery will be tough, stringy and lacking in the nutty flavor of celery grown from start to finish as quickly as possible. Coarse stable manure must not be used for celery. No matter how much water the celery has, the manure will at some time heat and cause the celery to stop growing. That will make the celery tough, no matter how well grown it is otherwise. The best material for celery is nitrate of soda, which will furnish nitrogen in available form without heating.—American Cultivator.

FARM AND GARDEN NOTES.

You can always find a ready sale for really good horses.

The first essential to profitable stock raising is a good animal.

If a horse eats too fast, scatter his grain over a larger surface.

It is easier to keep a team in good condition than to make it so.

A good grooming is as refreshing to a horse as a good bath to a man.

A little wheat bran and oil meal can take the place of oats and corn once a week.

With colts, as with other stock, liberal feeding and good care will produce liberal returns.

The farmer who has the care of young colts should make up his mind not to let them lose a pound of flesh at weaning time. The colt should pass his first winter in the best of condition, and without a hitch in his growth.

Old fences and hedges are a constant menace to the orchard. They are the breeding places of insects and of fungi. A hedge is a good ornament when rightly taken care of, but when it is in near proximity to the orchard it may cost many times more than its value as an object of beauty.

Some farmers, who seem sensible in most things, handle their orchards as if they did not know that any trees were growing there. They plow, grow crops which impoverish the soil, or use the orchard for pasture, as if trees were no more to be considered than fence-posts. No wonder their trees become discouraged.

Between the tree rows of a young orchard there is no better crop than currants or gooseberries, two or three bushes in each interspace. After five or six years grow nothing there, as a rule, and all the time keep the soil open by frequent manuring and tillage. Then let it grow up in blue grass; it at least forms a nice bed for the fruit to fall upon.

Judge Wellhouse, the great apple grower of Kansas, sows red clover in his orchards when they come into bearing, and rolls this down twice a season with a large roller on which are several knives of a stalk cutter. The clover stand is kept up by yearly re-seeding, and the fertility of the land is well cared for, so far as nitrogen and good physical condition go.

Should the pruning of an orchard be neglected for two or three years, it will not do to take out in one season all the growth that should be removed. Rather two or three years should be taken to rectify the mistake or neglect previously made. A sudden severe pruning kills many of the roots, and is sure to be followed by a very abundant and some troublesome growth of suckers.

Go over the orchard frequently and know that everything is well with the trees. The possibilities of orcharding are only to be measured by the ability of the man. If there are drawbacks in the nature of soil, climate, altitude, lay of the land, etc., and no doubt such drawbacks do exist, they are only of minor importance, and to the thoroughly competent fruit-grower such obstacles are really an aid. They put a handsome premium upon special knowledge and fitness for the work of growing and marketing fruit.

Lightning and Trees.

Cedars and fig trees are rarely struck by lightning. The beech, the larch, the fir and the chestnut seem to be peculiarly obnoxious to the "bolts of Jove." There are trees, however, which appear to attract rather than to repel the lightning flash. The trees generally enumerated in the category of those which the lightning is most apt to strike are the oak, the yew, the elm and the Lombardy poplar.—Ram's Horn.

For the last fiscal year Uncle Sam's navy cost \$26,202,155.

A FORTUNE FOR INDIANS.

RECEIVING INDEMNITY FOR LAND WORTH A KING'S RANSOM.

Recognition Won at Last by Chief Pokagon After a Marvelous Struggle Lasting 63 Years.

Chief Simon Pokagon of the Pottawatomie Indians, has just had a claim for \$118,000 due his tribe allowed by the government after the continuous efforts of a generation. It is in payment for land in southern Michigan, northern Indiana, and Illinois, ceded to the United States in 1833; vast tracts in the peach and celery belts, the corn and wheat lands and corner lots in Chicago, a territory now worth a king's ransom, says The Chicago Times-Herald.

The Pottawatomies were the first Indians christianized by Pere Marquette, and the whole band, numbering over 5,000, were baptized and have always remained devout Catholics. In 1795 Mad Anthony Wayne conquered them and brought them under control of the United States.

The remnants of this once powerful tribe are still domiciled on their old hunting grounds half a day's journey from Chicago, across the lake a few miles from Benton Harbor. They were a tribe of the Algonquians, speaking one of the rudest dialects, practicing one of the most savage war rites and dominating the whole region about the southern end of Lake Michigan.

In 1838 a tract was assigned the tribe in Missouri, and the St. Joseph band was driven away beyond the Mississippi by United States troops. Most of these are now in Kansas, where 1,400 heads of families became naturalized citizens, with individual holdings of real estate. They have a mission and flourishing school.

Sixty families resisted removal. They loved the St. Joseph, near which the bones of Marquette had once reposed. They pleaded with the government for a reservation on their old hunting grounds. A small tract was assigned them in the southwestern corner of Michigan and for a pittance they gave up the valley of the St. Joe, the rich soil of the Kalamazoo and the shore of the great sea water.

They are there to-day, about forty families of them, numbering 270 souls, having diminished one-third in two generations. The number is yearly growing less so rapidly that another generation will witness their extinction. They are good Indians now, but civilization does not agree with them.

When the government made the last treaty with the tribe in 1833 Simon Pokagon was 10 years old. He saw the war spirit broken, he saw the rich hunting grounds occupied by the white man, and the remnant that resisted removal retreat to Van Buren and county, some of them buying small farms and others building their lodges on government land. They claimed the same annuity given to the migrating members of the tribe. The missionary declared that they should have it in justice, and in the hope of securing it they mortgaged their little farms and built a church and a priest's house. Other people now own most of the farms, but they still have their church and patient priest. They have Simon Pokagon, too, their chief. Pokagon is a good and great Indian. If he had lived a hundred years ago he would have been renowned, like Pontiac and Shabona. He puts enough wisdom and capacity into the ruling of his little band to lead great tribes. Ever since reaching manhood he has fought for the rights of his people. In 1869, they being reduced to great straits, he accepted, under protest, the sum of \$39,000 in full payment for all claims. A man of less courage and ability would have let the matter rest there, but Simon Pokagon went on fighting another thirty years, to have his claim at last conceded. The grant of \$118,000 will give nearly \$3,000 to every head of a family. This will lift them out of debt, purchase farms long ago lost, and secure peace for the remnant of a brave race.

Pokagon is the last of the great race of chiefs—himself one of the greatest in that he recognized that the full acceptance of civilization is the only hope of the red man from utter extinction. He talks with the intelligence of the trained white man, and with the vigor that would have won him distinction in national councils. He is the sort of man to have on the Indian commission. It is more than likely that a few years will see all this sum of money dispersed, the number of the settlement still further reduced by death and the rest sunk again in hopeless poverty and debt. The chief has instructed the white man far more than his own people. He has written for The Review of Reviews, and Forum, he has delivered addresses at schools and met committees in Washington, and everywhere he has presented the Indian question in a clear fashion, sparing neither white man nor red. But even he, wise and forceful as he is, is not able to stem the tide of extinction that is rapidly sweeping his poor little tribe out of existence. In a few years Pokagon will be no more, and fifty years hence there will be a legend in Michigan that the warlike Pottawatomies once dwelt near St. Joseph.

Boiled Chief's Head.

One of the innumerable little wars that England carries on with savages has just taken place on the River Niger in West Africa. It concluded with the eating of a human head by the native allies of the British.

A chief named Katsheba had built himself a stronghold on a tributary of the Niger, from which he made raids into the territory of the neighboring king, who was under British protection. Katsheba was of immense size and fearful appearance. He lived a life of utter depravity. A British expedition of 150 men was sent after him, and smashed his stronghold. Lieutenant Festing, who commanded the expedition, writes: "The robber prince, Katsheba, an immense man, was killed just outside the town, and then the brutal instinct of the natives came out. They cut off his head and sent it to the king I was helping. He, if you please, had it boiled, and his muntshis (low native followers) ate it. The king subsequently sent the skull back to me, and it was handed to the doctor for disposal."

"Trolley Heart."

This is the name of a new disease which has made its appearance in Brooklyn, N. Y., and the following is a newspaper account of the pathology of and remedy for the disease, as given by a physician who was interviewed on the subject: "Trolley heart is rather an indication that the nervous system is a little out of gear than an ailment by itself. All you need is to have your nervous system toned up a bit. You see, it comes from running the trolley cars at full speed one minute and stopping them short the next minute, and keeping up that alternation for a ride of two or three miles. The worse time for it is the rush hours at night. Then all the cars are behind time, and the motorman are trying to catch up to the time table and everybody is in a hurry to get home, and a group of people are standing on every corner waiting to get on the car. The motorman starts the car at full speed and the sudden rush forward causes a shock to the nervous centre about the pit of the stomach, which makes a sudden effort to adapt itself to the situation. Then, just as soon as the nerves have been regulated to top speed they receive another wrench as the motorman stops the car short to let more passengers on. Thus there is a sudden strain, a sudden relaxation, and then another wrench on the nerves. It's like catching a boy by the scruff of the neck and shaking the life out of him. Apply this quick alternation of sudden starting and sudden stopping to a man whose nerves have been at high tension at his work all day and you get a wreck. The proper way for a man to go home after his work is calmly, evenly, smoothly, not by starts and jerks. That's the way the trolley heart is started. Why, I have a patient who was the best husband and father in the world until they put in the trolley. After a year of it he was attacked with trolley heart, and when he'd get home at night he'd be in such a state of nervous irritation that his family couldn't stand him."

Cloth Windows.

Windows of cloth instead of glass sounds like an impossibility, and yet it is a reality, and the employment of such a substitute is an acknowledged success. It is not ordinary cloth, but such as is transparent, through which light comes just as through glass. To all intents and purposes this cloth window is similar to the sheets of glass, and lasts ever so much longer, while still having just as good an appearance. Now, the remarkable feature of this new fabric is that it never leaks, does not break and is nearly one-third cheaper than glass. A large skylight composed of the new substitute for glass, which has been in constant use long enough to show its worth, remains in perfect condition, not one cent having been spent on it for repairs.

The material has many advantages claimed for it, chief of which is that by its employment in train sheds, freight houses, large auditoriums and public buildings having skylights of large area, the light weight of the material permits of a simple, inexpensive and light form of skylight construction. The joints are made water tight by a special method used with this material. The translucent fabric consists of a transparent material spread over steel wire cloth, with twelve meshes per inch, which gives the panels a flexible and elastic quality permitting its adjustment to any shape that the roof structure may take, owing to the expansion or contraction of the framework. The fabric is strong and is made in panels 18x36 inches in size, and can carry a weight of over 400 pounds per square foot.

A! White Cats Deaf.

"Though I had often heard of it, I never was fully satisfied that all white cats are naturally deaf until recently," said a scientific gentleman who devotes considerable of his time to experimenting with the lower order of animals. "I was aware that Professor Bell, in his original experiments in connection with the telephone, had ascertained and stated that his experience with white cats was that they were all either deaf or very deficient in hearing, and that other experimenters in the same direction had reached similar conclusions. To satisfy myself I recently secured in all twenty-three white cats, and experimented on them, one at a time.

"In every case I found them stone deaf. In carrying the experiment further, I found that white dogs and white horses are deficient in hearing, and that many of them are entirely deaf. So are white rats and white mice. I am confident I do not overstate it in regard to white cats, though I have only experimented with twenty-three, and, of course, can only speak positively in regard to them. I don't hazard much, however, when I make the bold statement that all white cats are deaf."—Washington Star.

The Belgian government has commenced extensive reconstructive works on the docks at Ostend. The cost of the undertaking will foot up nearly \$20,000,000.

NOTES AND COMMENTS.

President Cleveland, in accordance with the act of Congress authorizing him to prescribe the kind of ribbon to be worn with the medal of honor awarded to soldiers for distinguished gallantry, has prescribed a silk ribbon one inch wide and one inch in length, with red, white and blue stripes.

Cassler's Magazine suggests the need of an ice machine of small capacity which can be sold at a low price. There is a great field for such a device, and the inventor of a successful machine of this nature will undoubtedly reap a rich reward. This is a good field for inventors to work in, for although many improvements have been made, they are usually adapted only to large plants.

The expedition sent out last spring by the Geological Survey to explore the headwaters of the Yukon and to discover if possible the source of the gold found along that river has returned with a wonderful tale of rich ore veins extending from the British territory into Alaska in the neighborhood of Forty-mile Creek, and running thence for five hundred miles in a northeasterly direction. The gold belt is at least a hundred miles wide and the geologists say that the deposits are fully as rich as those of South Africa.

The election of Mrs. Martie Hughes Cannon to the State Senate of Utah is another step forward in the progress of women in politics in this country. They have hitherto been chosen to seats in the lower legislative branches of the government in one or two of the States where they share equal political privileges with the men, but this is the first instance where a woman has been elected to the upper legislative branch. What adds a special significance to this case is that the woman ran against her own husband, and beat him out of sight.

A Kansas City paper says that a firm in that city, which makes canned soups of various sorts, was surprised to receive from Rhode Island the other day an inquiry as to the terms at which it would sell "wishbones" in thousand lots. The request has revealed to the company a new source of income, and one not wholly unimportant. Hitherto the skeletons of the numerous fowls it uses have been ground into fertilizer, but having discovered that there is a demand for "wishbones" to be used for various decorations and sentimental purposes, the Kansas City men think that by properly pushing the trade they can get more for this bone than they have been receiving for all the rest.

A yarn about living mastodons seen by Indians in the mysterious eastern part of Alaska recently went the rounds of many papers. Some of them gave it headlines indicative of more or less belief, and others cautiously made generous use of "alleged" and "it is said." Prof. George Davidson of San Francisco, not only derides the very idea that elephants pringensis still survives, but says that the tale was stolen bodily from a book by Aleck Badlam—whichever he may be—and formed one of a series that made no pretense to truth. Among the inventions of this author, it seems, was an animal, also nominally Alaskan, with long legs on one side and short ones on the other, a form of construction evolved to meet the needs of a creature that passed all its time on steep mountain sides.

If the plans recommended by Charles Payne, of Wichita, Kan., the well-known hunter and authority on wild game, are carried out, the greatest private game preserve in the United States will soon be established in Northern New Mexico. Mr. Payne has been frequently importuned by wealthy men for information as to the best location for extensive private hunting grounds in the West, and he recently took a trip through Colorado and New Mexico. His report recommends the purchasing of nearly 200,000 acres of mountain land, which now belongs to the Maxwell Land Grant Company, and which is located in Northern New Mexico. Should it be used for a game preserve, the entire tract will be enclosed with a high and strong wire fence and stocked with all manner of wild game.

Some courageous person recently wrote to ex-Governor Hogg of Texas, asking him if it were true that one of his daughters is named Ima and another Ura. Statements to that effect have frequently appeared in print, but most people supposed that they were the inventions of discourteous humorists or of political enemies. It seems at least that they were half true, for in answering the query addressed to him, the Governor says: "The name Ima was given to my daughter a few days after her birth, and the singular application of it to the old, well-established name of her paternal ancestors did not occur to any one until I had entered political life." There is no daughter named Ura, for the reason, among others, that Governor Hogg has but one daughter. His sons are named William, Michael, and Thomas.

Miss Frances E. Willard, President of the Women's Christian Temperance Association, has recently compiled some interesting statistics with regard to women's progress the world over. She chronicles, among other things, the fact that women have about succeeded in gaining admission to the General Methodist Episcopal Conference, and that they have been successful in preaching the gospel in all but the Episcopal and Roman Catholic sects. With respect to education, Miss Willard says: "Out of 451 colleges and universities in the United States only forty-one are closed to women. All the others are now co-educational, and, besides, women have 143 schools of the

higher educational standard, with 30,000 students. One-fourth of the fellowships of the University of Chicago are held by women, eleven States and fourteen colleges or universities being represented. Three women fellows have given instruction in the university this year. Of 400,000 teachers in the United States, 43 per cent. are women; in England the proportion is even greater. There are 123,955 women teachers in England. In Russia there were 500 applications for the 150 vacancies in the entering class for the higher course for women at the university at St. Petersburg at the recent examinations. Politically the progress of women is even more marked. Twenty-five States have given the educational ballot to women; one, Kansas, the municipal, and Wyoming, Colorado and Utah have made them full citizens."

The appalling extent of the famine in India is now disclosed. It prevails in nearly every part of the Empire. In the Punjab the whole vast triangle of which Lahore, Simla and Delhi are the apices is destitute, as well as some other districts—say one-half of the province. About the same proportion of the Northwest Provinces and Oude is suffering. Of the Central Provinces one-fourth is in distress—namely, the Nerbudda Valley and Balpoor. In upper Bengal distress bids fair to become serious, especially around Patna and Bagulpoor. All Berar is in want. So is Madras north of the Kistna. In Bombay trouble is more threatening in the central and southern districts, such as Ahmednuggur, Kolapoor, Belajoor, Khandesh and Belgama. Upper Burma is in some danger. Hyderabad, Gwalior, Bhurtpoor, Bundelkand, and Indore, most of the native States, are in a bad way. Some 60,000 persons are now employed on relief work, but 60,000,000 need relief. The trouble has been caused by dry weather. That made the autumn crops a failure, and has prevented fall sowing for the spring crops. There is no prospect of relief, therefore, from outside, until next fall. At least one-third of the Empire is thus affected. In the remainder there is a fair harvest, but not a sufficient surplus to supply the famine-stricken regions. Relief is, therefore, to be got chiefly from America, since this is the country that has at present most wheat to sell. The work of importing grain will be left, if possible, entirely to private trade, and so will the regulation of the market. The government will confine its efforts chiefly to employing on public works—such as railroads—and canals—as many of the destitute as possible, so that they can earn money with which to buy grain. There are many millions of farm laborers in India. In a season of drouth, like the present, there is no farm work for them to do, and they would perish like flies if some other employment were not provided for them.

Real Value of a Menagerie.

An interesting catalogue was recently published by Sagebeck, of Hamburg, and the real value of a menagerie can be pretty closely estimated by this price list. He quotes a hippopotamus at \$4,500, an African rhinoceros from \$2,500 to \$3,000; female elephants, according to age, \$2,000 to \$2,500; male elephants, with tusks two feet long, \$2,000; a pair of African lions from the Sahara only, \$1,500; a Nubian lioness, \$600; a trained group of wild animals, consisting of two pairs of Nubian lions and two male Bengal tigers, \$7,000; a female Bengal tiger, \$7,500; a pair of Sumatra tigers, \$1,500; a pair of jaguars, \$750; a female Japanese leopard, with a cub, \$300; an African male leopard, \$150; a black panther, \$400; a pair of full-grown wolves, \$50; a guu, \$600; a large male polar bear, \$300; a large brown bear, \$50; pair of zebras, \$750; an alligator, 10 feet long, \$550; a boa constrictor, 23 feet long, \$550; a Somali ostrich, \$175; a pair of Borneo apes, \$100, and a baboon, \$25.

The greatest increase in price from former lists is in the case of the giraffe, a male specimen of which is now worth \$12,200, while only two years ago such a specimen might have been had for \$300 or \$350. Scarcity of these animals, as well as the inaccessibilities of the Egyptian Soudan, are responsible for this increase in the price of the giraffes.

The City of Gold.

"The City of Gold," it is rumored, will be to the Paris exhibition of 1890 what the Eiffel tower was to the last great show, ten years since. There had always been an idea of reconstructing in effigy the Pont du Change, the Bialto of medieval Paris, and this suggested to M. Hudelhard, an imaginative journalist, the far more grandiose project of illustrating the whole history of money and the industries connected therewith. He aims, in the first place, at tracing gold, silver and copper coinage from mine to mint and from mint to mart, each step in the progress being exemplified by working models, if not by the machinery in actual use. He hopes, moreover, to extend his display so as to cover the monetary operations of all countries and all ages. The substitution of paper for specie will then be dealt with, and it is proposed to reveal the intricacies of the entire credit system as carried out in great banking establishments, though one can hardly conceive how such an object lesson can be rendered intelligible or interesting to a passing crowd of sightseers.—St. James Gazette.

The egregious underestimate of cost of the Panama Canal nearly swamped that enterprise before wholesale stealing completed the ruin.

The forts on the Meuse river, in France, estimated at \$4,500,000, cost \$16,000,000.