

The Democratic Sentinel

RENSSELAER, INDIANA.

J. W. McEWEEN, PUBLISHER.

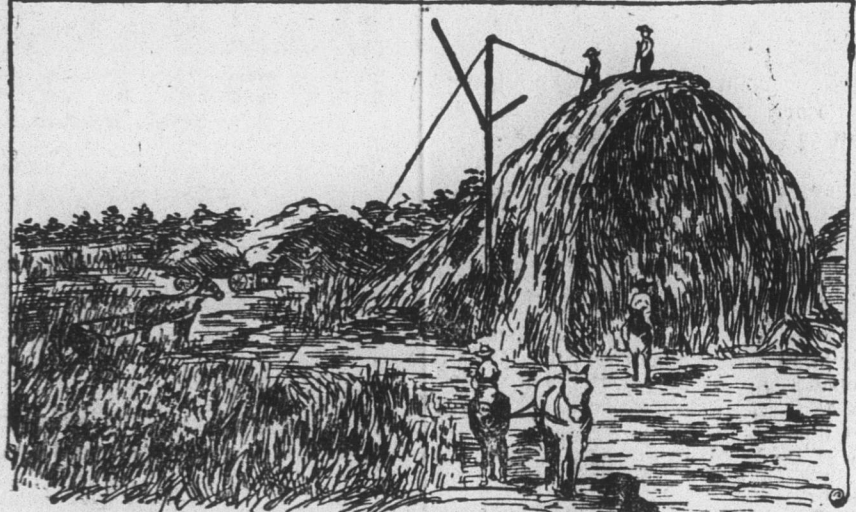
LAND IN AN ARID BELT

ITS VALUE GREATLY INCREASED BY IRRIGATION.

The Wonderful Progress During a Decade—Over 17,000,000 Acres Under Irrigation Ditches and Upward of 13,000 Artesian Wells in Use.

Worthless Acres Redeemed.

The most remarkable fact in the history of the country to-day, is the development of the Pacific West. Formerly dependent for its prosperity on its minerals and shunned by agriculturists on account of its arid lands, it has changed all this by its achievements in irrigation and now mining camps and desert acres are converted into fertile fields, gardens, and vineyards. Though known from the dawn of civilization and employed on this continent by races that have vanished forever, irrigation is to us something of a rediscovery. Its use among us is very recent. Where a decade ago were sun-scorched plains and valleys, with no sound of animal life, but here and there a mockery of vegetation, are now a large and thriving population, prosperous cities and towns, lands worth for cultivation from \$500 to \$1,000 an acre and a wealth of fruit production



AN ALFALFA FIELD IN THE CALIFORNIAN DESERT. (Harvesting a rich crop made possible only by irrigation.)

without a parallel in the world. Twenty years ago no one in America knew how to utilize water on a large scale for irrigation. A few colonies in different parts of the arid zone, a few settlers in isolated valleys, were making experiments. A decade ago some 2,000,000 acres of the arid region were irrigated, and since then the progress of irrigation has been a march of triumph.

In 1886 the area under water ditches was 5,500,000 acres and by 1891 it had increased to 17,177,843 acres, of which 7,998,000 acres were under cultivation. The difference between the area under water ditches and cultivation is due to the fact that years are required to settle the country and prepare the soil after the irrigation ditches are formed. Of the large acreage under ditch in 1891, 4,500,000 acres belonged to California and a little over 3,000,000 to Wyoming and Colorado, each. California had 3,500 artesian wells and Colorado 4,500. Some of these wells yielded 4,000,000 to 5,000,000 gallons of water daily, capable of irrigating a section of land. Judging the present by the past, says Charles H. Shinn in Popular Science Monthly, there will be from 30,000,000 to 35,000,000 acres under some irrigation system by the close of the decade and the actually cultivated area may be close upon 20,000,000 acres.

Irrigation in California. In the matter of irrigation California has had a larger and more extensive experience than any other division of the arid belt. In Merced County is the greatest corporate irrigation enterprise in the United States. The company has expended \$3,500,000 on a 50-mile canal from the Merced River, with 150 miles of lesser ditches, and has enough water to irrigate 600,000 acres. Colonies are springing up along the line of the canal and thousands of acres have



THE TRIUMPH OF IRRIGATION IN CALIFORNIA.

(A watering ditch in the famous Kern region, where hundreds of thousands of acres have been turned by the agency of water from arid into fertile lands.)

been planted. In the Kern region private capital has done an enormous work. Seven hundred miles of large irrigating ditches have been dug in this country, which contains more than 6,000,000 acres. Thirty large canals have been taken out of Kern River, the most famous of which is the Calloway, 80 feet wide on the bottom and 120 feet wide at the top. It irrigates 200,000 acres through 65 laterals, of an aggregate of 15 miles. Another irrigation enterprise of Kern County is that of two San Francisco capitalists. It embraces 27 main canals, with an aggregate length of 300 miles, besides 1,100 miles of permanent laterals. It can water 600,000 acres.

Twenty years ago the value of such land was less than a dollar an acre. To-day there are hundreds of acres of alfalfa, and orchards of peaches, apricots, prunes and almonds. Cotton, sugar beets, the sugar cane of Louisiana, tobacco, corn, cassava, and a multitude of the products of the temperate and semi-tropical regions thrive there and can be cultivated as staple crops. In other States the value, nay, necessity, of irrigation is appreciated. In Montana, Idaho,

Kansas, Utah, New Mexico, Arizona, Texas, Nebraska, Washington, Nevada, Oregon and the Dakotas several million acres are under irrigating ditches. In 1891 Montana had 1,250,000 acres; Idaho, 1,200,000; Kansas, 990,000; Utah, 735,000; New Mexico, 700,000; Arizona, 650,000; Texas, 359,000; Nebraska, 200,000; Washington, 175,000; Nevada, 150,000; Oregon, 125,000; South Dakota, 100,000; and North Dakota, 2,500. These States have 5,486 artesian wells, making with California, Wyoming and Colorado a grand total of 13,492.

Indian Corn.

The typical plant of the new world is maize, or Indian corn. The early adventurers and settlers both in North and South America found in it a delicious food, easily cultivated, apparently indifferent to soil or climate, yielding in abundance twice that of any other grain, with much less labor, and susceptible of preparation for the table in many forms. The white settlers found it the food of the Indians and made it their own, and for four centuries it has been the best known, as it is the cheapest and most nutritious, of the food supplies in the western hemisphere. And yet, after these centuries of knowledge, it has not obtained great favor in Europe. The potato, another plant indigenous to America, early became a popular European food, common to the tables of the rich and poor, and the chief support of the poor in Ireland, but corn, a much more nutritious food, and quite as easily cultivated, has never been widely adopted. Our most persistent missionary efforts have accom-

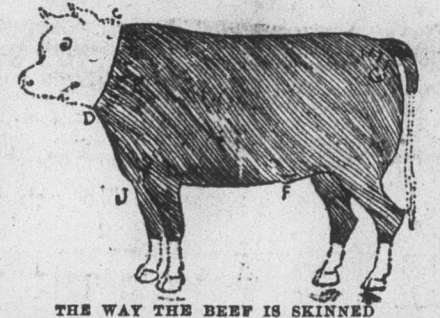
NOVEL ARMY RAFT.

MADE OF INFLATED OX HIDES AND VERY BUOYANT.

The Useful Invention of a Russian Army Officer—The Hides of the Bees Slaughtered to Support an Army on the March Utilized as Boats to Cross Streams.

Substitute for Pontoons.

A Russian engineering journal publishes some details describing a novel method of crossing rivers upon rafts

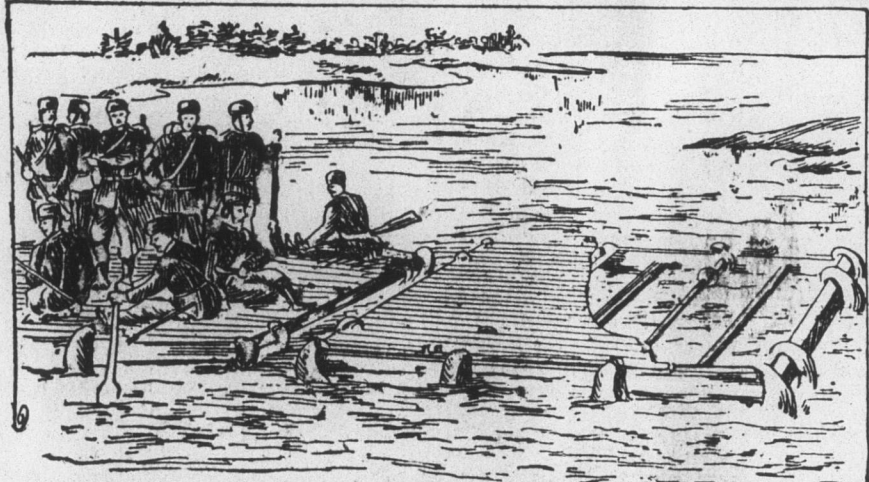


THE WAY THE BEEF IS SKINNED

supported by inflated ox hides. Some interesting experiments were recently made by the Russian military authorities which showed that the system will be of great service to an army in the field.

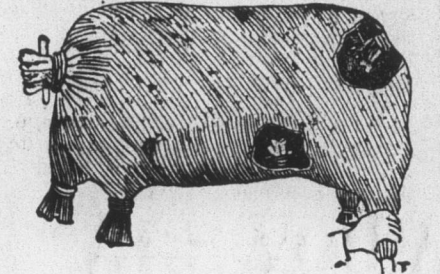
Leather bags made from ox hides are each susceptible of supporting a weight equal to two or more men upon the surface of the water. Doves of cattle that accompany an army to be slaughtered for food furnish a ready supply of hides necessary in the construction of floating rafts. Although the subject may be somewhat technical, it seems interesting to know how it is possible to make these air sacks in the field. When the ox is killed the head is cut off close up and a slit made in the skin of the chest. Then the skin is cut above the knees and the legs unjointed at the knees. The skinning commences at the neck and by means of incisions at the proper places and taking out the internal organs during the process the hide is generally drawn off intact. To close the openings of the hide, small slits like button-holes are made through both thicknesses near the edge. Then the hide is turned, the hair inside. Wooden pegs are put through the slits and the openings wound with several turns of beef tendons, which are held in place by the pegs. The skin is again turned, the hair outside. Before closing the last opening a hollow bamboo peg is introduced in the leg and the hide inflated with a bellows or the mouth.

The raft timbers are 1 1/2 to 12 feet in length and 2 to 3 inches in diameter. The inflated hides, four to eight in number, are tied to the corners of the raft. Figure 3 represents such a raft transporting Russian troops. Our locks are made to support the oars. The raft is floored for transportation of infantry and artillery. An air sack made of ox hide weighs about twenty-five pounds, and can carry a weight equal to the animal that it was taken from. A raft sup-



RAFT CONVEYING SOLDIERS ACROSS A RIVER.

ported by four hides will carry ten men and rise six inches above the water. With six hides it will carry twenty men and project three to four inches above the water. Four of



AN INFLATED HIDE.

these men can do the rowing. The hides can be used as soon as made into air sacks, but to preserve them any length of time they should be well salted and dried for three or four days in a ventilated shed and the fresh side coated with a mixture of tallow and tar.

These inflated hides are so buoyant that a large number of soldiers and pieces of artillery can be transported across rivers and other bodies of water, and at much less labor and expense than is involved in carrying a heavy pontoon bridge.

SLAVERY DAYS IN NEW YORK.

The Captain of a Successful Trader in Live Freight Was Four Times Mayor.

On the turn from the seventeenth to the eighteenth century slave-dealing was an important and well-thought-of industry, or, in the more elegant phrase of one of the gravest of New York historians, "a species of maritime adventures then engaged in by some of our most respectable merchants." The Dutch are credited with having brought the first cargo of slaves to the northern part of America—from their possession on the Guinea coast to the Virginia plantations—and, according to Harper, a regular part of the business of the Dutch West India company was providing African slaves for use in the American colonies. The profits of the business, even allowing for the bad luck of a high death rate, was so alluringly great that it was not one to be slighted by the eminently go-ahead merchants of New York, and the fact must be remembered that as a business slave-dealing was quite as legitimate then as is the emigrant traffic of the present day. Young John Cruger has left on record a most edifying account of a voyage which he made out of New York in the years 1698-1700, in the ship *Prophet Daniel*, to Madagascar for the purchase of live freight, and the sentiment of the community in the

premises is exhibited by the fact that the slave-dealer Mr. Cruger was elected an Alderman from the Dock Ward continuously from the year 1712 until the year 1773, and that subsequently he served four consecutive terms as Mayor. In addition to the negro slaves there were many Indian slaves held in the colony.

For convenience in hiring, the law was passed November 30, 1711, that "all negro and Indian slaves that are let out to hire within the city do take up their standing in order to be hired at the market house at the Wall street slip." Probably the alarm bred of the so-called negro plot of 1741 was most effective in checking the growth of slavery in this city. Certainly the manner in which the negroes charged with fomenting this problematical conspiracy were dealt with affords food for curious reflection upon the social conditions of the time. After a trial that would have been a farce had it not been a tragedy, Clause was condemned to be "broken upon a wheel," Robin to be hanged in chains alive, "and so on to continue without any sustenance until he be dead;" Tom to be "burned with a slow fire until he be dead and consumed to ashes," and so on. However, everything depends upon the point in view. In that strong, stomachic time judicial cruelty to animals met with universal approval, and, as to slavery, the worshipful Sir Edward Coke but a very few years earlier had laid down the doctrine that pagans properly could be held in bondage by Christians, because the former were born slaves of Satan, while the latter were servants of God.

A Strange American Island.

The strangest bit of land north of Florida lies quite near ruined Fort Caswell. This is Smith's Island, or Bald Head Island, which, by reference to a map, will be found to project near the Gulf Stream than any other land on this continent. The result is that it is sub-tropical, the palm tree reaching a height of thirty feet or more, and growing in profusion, while the olive and myrtle are abundant. A greater peculiarity is that frost does not affect vegetation on the island. The island is about four miles long and three wide. On it is a lighthouse, built in 1817, and a life-saving station. Extending across it is a heavy earthenwork, built by the Confederates in 1861, now a vast line of sand bank. The place is a hunter's paradise six months in the year. The island was recently purchased for \$25,000 by a Chicago man, who will build a hotel and use the great forest of live oak and palmetto for a game preserve. This island is a bit of Florida anchored off the North Carolina coast.

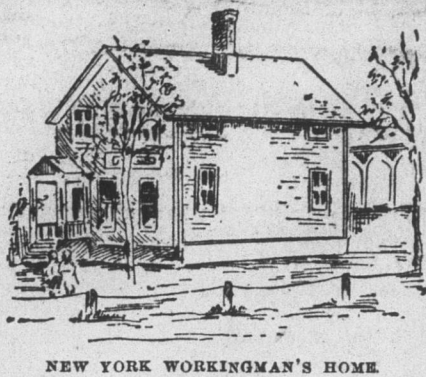
For two centuries wrecks have occurred along this stretch of coast, and looking seaward there are many signs of partially submerged blockade runners which came to grief. Money is frequently exposed by the washing away of the beach. One night in 1864 a party landed there, and digging a hole, hid in it \$175,000

MODEL HOME FOR WORKMEN.

New York Shows a Dwelling at the Fair which Costs but \$1,000.

Down in the southeast corner of the World's Fair grounds, near the confusing display of wind-mills, and almost under the shadow of the intramural, stands a modest little structure which the average visitor would be apt to overlook. A sign extending half way across the front informs the passer that the building is the New York State exhibit of a model workman's home.

The model home is two stories high, the upper rooms being cut into a trifle by the roof, but not enough



NEW YORK WORKMAN'S HOME.

to cause any inconvenience. It covers a lot 26x28 feet. It rejoices in the luxury of a front entry and a side porch and is provided with a bath-room and plenty of closets. The walls are all painted, and they can be washed with perfect freedom. There are outside blinds, a gable roof, and a brick chimney, and all this plenitude of possession may be had for the moderate sum of \$1,000. The ground floor contains a sitting-room and a kitchen, front hall, and a bath-room. This latter is located here for economical reasons, as the drainage can be united with that of the kitchen. The parlor has an open fire-place and an ornamental mantel. The floor is covered with pretty rugs and the furniture is tasteful and serviceable.

The house is completely furnished throughout—linen, crockery, and even clothing. It is intended for a model family consisting of one father, one mother, three children, and one baby. All the drawers and closets are full of neatly folded clothing for the model family, each piece marked with the cost; in fact, everywhere about the house are plainly written instructions giving size and use of rooms and all needful detail for workmen to read and profit by. There is only one feature of the model home which would possibly merit any sort of criticism: that is the closet system. The model wife has a rather small closet allotted to her, the model children have one a trifle larger, and the model husband has one nearly twice as large. Now, unless model workmen's wives are of a different species from other men's wives the woman would have that big closet for her dresses, if she had to render the four model children orphans in order to obtain it.

Cadi and Council.

Justice is the end of government, and every nation has its own peculiar method by which this end is achieved. In "Our Future Highway to India," an interesting trial is described. There had been a riot and one man had been hurt. The ringleaders in the riot were now put on trial, and a curious sight it was.

The cadi and council were seated around a table. An officer called the "kaimacan," had conducted us to the place where the trial was going on, and the party was accommodated on a divan. The prisoners were brought in under a strong guard, the wounded man and the doctor being at the other end of our divan. The whole place was crowded with witnesses and spectators.

A more peculiar trial was never seen, every one gesticulating, shouting and yelling. The prisoners abused kaimacan, cadi, court, and everything else, and were abused in turn. The noise went on increasing until it seemed as if the roof was about to fly off.

Suddenly there came a lull, and every one, prisoners, guards and all, commenced smoking cigarettes. The ringleader in the riot coolly took a light from one of the members of the court. After a pause, and with their lungs refreshed by the soothing fumes of tobacco, they all again burst forth in chorus, and the noise was worse than before.

I know not how the clerk to the court managed to keep his notes of the evidence, but perhaps he was accustomed to such scenes, and managed to take down a fair description of what occurred.

Though there was fresh blood on their clothes, and some long hairs were sticking to the sword of the one who had actually struck the blow, the prisoners swore they were innocent. Luckily the case did not rest on oral testimony, as an officer had been present and seen the man cut down. So far everything went to convict the culprits, but the question of provocation given and received had to be debated before the punishment could be awarded.

A Luminous Tree.

A remarkable tree grows near some springs, about twelve miles north of Tuscarora, Nevada. It is about six or seven feet high, with a trunk which at its base is three times the size of an ordinary man's wrist. Its truly wonderful characteristic is its luminosity, which is so great that on the darkest night it can be plainly seen a mile away. A person standing near could read the finest print by its light. The luminous property is due to a gummy substance, which can be transferred to the hand by rubbing, together with the phosphorescent light, while that on the leaf disappears. This luminosity is thought to be due to a parasitic worm.

Pennies for the Heathen.

Madge, aged 7, had a list of questions and answers given her by her Sunday-school teachers to learn, the first of which was, "What is a missionary?" and the answer, "One sent to teach the heathen." The list was duly learned, and she went to Sunday school full of importance that she had her lesson perfect. On her return she was asked if she had remembered the answers, and she replied, "Yes, mamma, I only missed the first, and in that I only made the mistake of a penny. I said, 'Two cents to teach the heathen,' instead of 1 cent."

SUCCESSFUL SPECULATION.

How Stephen Girard Started His Drayman on the Road to Fortune.

The advice of a shrewd business man is sometimes of more value, even in a financial sense, than direct aid.

It proved to be so in the case of a drayman who was employed by Stephen Girard the Philadelphia merchant.

One day the drayman, who was an industrious, bright fellow with a good many mouths to fill at home, was heard to remark that he wished he was rich.

"What's that?" sharply said Mr. Girard, who heard the grumble.

"Oh," said the man, "I was only wishing I was rich."

"Well, why don't you get rich?" said the millionaire, harshly.

"I don't know how without money," returned the drayman.

"You don't need money," said Girard.

The man laughed.

"Well, if you will tell me how to get rich without money, I won't let the grass grow before trying it," returned the other.

"There is going to be a shipload of confiscated tea sold by auction tomorrow at the wharf. Go down there and buy it in, and then come to me."

"I have no money to buy a whole shipload of tea with," he said.

"You don't need any money, I tell you," snapped the old man. "Go down and bid on the whole cargo, and then come to me."

The next day the drayman went down to the sale. A large crowd of retailers were present, and the auctioneer said that those bidding would have the privilege of taking one case or the whole ship-load, and that the bidding would be on the pound.

He then began the sale. A retail grocer started the bidding, and the drayman raised him.

On seeing this, the crowd gazed with no small amount of surprise. When the case was knocked down to the drayman, the auctioneer said he supposed the buyer desired only the one case.

"I'll take the whole ship-load," coolly returned the successful bidder. The auctioneer was astonished; but, on some one whispering to him that it was Girard's man who was the speaker, his manner changed, and he said he supposed it was all right.

The news soon spread that Girard was buying tea in large quantities, and the price rose several cents.

"Go and sell your tea," said Girard to the drayman the next day.

The drayman was shrewd, and he went out and made contracts with several brokers to take the stock at a shade below the market price, thereby making a quick sale.

In a few hours he was worth fifty thousand dollars.

A POSTPONED CATCH.

Peculiar Luck of a Maine Fisherman that Came Late.

There is a man in North Turner, Me., who will probably never cease boasting of one bit of fishing luck at

least. Not long ago he returned from a piscatorial excursion with nothing better to show for his day's labor than two wet feet. In great disgust he leaned the fish pole up against the house beside the door and disclaimed any knowledge of the fish market. The next morning his astonished eyes fell on a good fat hedgehog dangling from the hook. His "bait" of the day before can hardly be held accountable for the event.

IOWA TWIN ELMS.

Peculiar Freak of Nature to Be Found in Honey Creek Township.

Twin elm trees are not a rarity, but seldom are they found of such dimensions as the twin elm trees of which we present an illustration.



IT WAS NOT THE FAULT OF THE BAIT.

least. Not long ago he returned from a piscatorial excursion with nothing better to show for his day's labor than two wet feet. In great disgust he leaned the fish pole up against the house beside the door and disclaimed any knowledge of the fish market. The next morning his astonished eyes fell on a good fat hedgehog dangling from the hook. His "bait" of the day before can hardly be held accountable for the event.

EXACTING FATHER—"James, how are you getting along with that job of wood splitting?" Rebellious Son—"I'm making about three knots an hour."—Detroit Free Press.

EXCELLENT WRAPPING PAPER is now made from the stalk of the banana plant. The peel will go on making those who inadvertently step on it rap sideways. —Philadelphia Ledger.

"How is it with you?" asked the editor of a subscriber who was dying in arrears. "All looks bright before me," gasped the subscriber. "I thought so," said the editor; "in about ten minutes you'll see the blaze." —Oil City Derrick.

AN ORIGINAL COMPOSITION.—Teacher—"Are any of your compositions ready?" Little Girl—"Mine is." "Is it an original composition?" "Yes'm." "You may read it." "I went to a wedding and a funeral, and the bride looked lovely and the corpse looked natural." —Good News.

MRS. KINDLY—"Now, I'll give you a dime, poor man. But I hope you will not do me and get drunk with it." The Poor Man (much hurt)—"Lady, you do me a great wrong to suggest such a thing." Mrs. Kindly—"I didn't mean to accuse you." The Poor Man—"I'm glad of it, lady. Do I look like a man who could get drunk on a dime?" —Puck.

CALLER—"Why are you waving your handkerchief so wildly?" Murilla—"Since papa has forbidden Jack the house we have arranged a code of signals." Caller—"What is it?" Murilla—"When he waves his handkerchief five times that means, 'Do you love me?' and when I wave frantically in reply, it means, 'Yes, darling.'" Caller—"And how do you ask the other question?" Murilla—"We don't. That's the whole code." —Harper's Bazar.

HORSE LORE. In that portion of Genesis which tells the story of Joseph, the famine, etc., we find the first historical allusion to the horse. Prior to 1066 the horses of England were never shod. Henry VIII put a stop to the raising of inferior horses in England by having all slaughtered that were under thirteen hands high at the age of five years.

In Japan the man of "quality" never forces his steed out of a walk; if the errand is one which demands speed the rider dismounts, ties the fore legs of his animal together, and strikes off at a brisk gallop on foot.

THE TWIN ELM TREES.

The twin elms grow in Honey Creek Township, Iowa County, Iowa, and they stand below the point of junction, seven feet apart. It is 30 feet from the ground to where they unite, and the point of union is 3 feet in diameter for 10 feet. The body of each tree is 2 1/2 feet in diameter and the greatest height 90 feet.