

SATURDAY EVENING, SEPTEMBER 7, 1901.

MONSTER HOPFIELD OF 368 ACRES

How the Bearly Blossoms Are Gathered in California and Shipped to England—This One Crop Is Worth Over \$100,000.

With beer rapidly becoming the universal beverage and increasing its devotees every year, the culture of the hop is becoming an important industry. In England, where more beer is consumed per capita than in any other country in the world, not excluding even Germany, 1,550,000 acres are fit for hop culture. An acre has the same amount of hop land as for cultivation, but America grows all her own hops and exports 65,000 bales to Great Britain. But even this is not enough to keep John Bull's throat wet, and Great Britain imports an additional 50,000 bales annually from Europe. Of the 55,000 acres which grow hops in this country, 7,500 are in California—twice as many as are grown in any other state in the union—and California has the doubtful distinction of owning the biggest

temporary thatched huts and in quaint little wigwams made of green willow boughs. All is life and activity and outdoor joy for a fortnight, for a month, for five weeks, and then the beautiful acres of lofty vines are stripped to the ground, the blossoms have all been plucked and carried away to the dryers, and the excitement and its transient population suddenly vanishes. The biggest hopfield in the world is a mile across the level plain from the railroad station where a conspicuous group of red buildings, their elevator turrets projecting high above the roofs of the drying kilns form a landmark visible from all parts of the Pleasanton valley. Stretching away or half a mile in one direction for three-quarters of a mile in another are accurately aligned in rows of seeming telegraph poles, always forty-two feet apart each way connected on top with heavy wire. Pasted at right angles across these larger wires



A FOREST OF GREEN VINES.

single hop field in the world, an area of 368 acres at Pleasanton, where half a million vines grow under one wire, covering the country as far as the eye can reach with a canopy of pale green vines and blossoms whose heavy odor is almost oppressive. It is one of the sights, early in September, before the picking season begins, to walk in these fragrant forests of hops. The entire product of the Pleasanton hop field, amounting last year to 2,800 bales, worth from \$35 to \$40 a bale, is about \$110,000 for the crop, is annually sent to London direct, for a certain famous manufacturer of pale ale. So highly do he value these hops that he regularly pays from 2 to 4 cents a pound more for them than the market price for other hops from the same locality. Two big locomotives drawing a special train with the whole Pleasanton crop aboard take these hops across the continent to New York, whence they are carried in an Atlantic liner to England. Possibly the

are smaller ones nicely arranged six feet apart in parallel rows, so that hundreds of acres are covered as by the mammoth meshes of a coarse screen. Such is the view of that portion of the hop field which has been denuded of its vines. There are bewildering hundreds of these twenty-foot poles blending in the distance into dense masses, and more than 1,000 miles of heavy wire in that enormous network. The up-to-date hop yard is a model of improved methods of culture and curing. The hop roots are planted six feet apart in accurate rows, making a total of 1,310 plants to the acre. Every ten years the roots are grubbed out and renewed, though the old ones will produce fairly well for twelve or fifteen years and longer. In February men go through the field and grub off the spreading upper roots and then "hill up" the earth around the main root. About the first of April wagons with elevated platforms, somewhat resembling



WHOLE FAMILIES PICK.

same Atlantic steamer and some of the same freight cars form the line of transportation by which the choice hops from Pleasanton come back to America as expensive imported English ale and beer. But so it is with various other products of American soil. The people of this country are slowly awakening to the situation, but it will take years for them to learn to save themselves the cost of that double freightage half way around the world. The American hopfields employ about 240,000 men, women and children as pickers alone, for there are 72,000,000 hop vines to be stripped and the crop in a good season is worth \$16,000,000. The picking must be done by hand within the short month of September when the blossoms are at their best. This means the sudden mustering of an army of people for the harvest. The mild climatic conditions that favor the development of the hop and the pleasant valleys where alone it will grow, combine to make hop-picking something of an autumn delight, for the work is neither difficult nor arduous and the pay is fair. From the country side, from the cities and from the distant mountain regions come individuals and families and groups to the hop fields, forming a picturesque settlement. They dwell in tents and in

but very much larger than those used in repairing trolley wires for street rail-way systems, go slowly through the plantation and fasten strings at regular intervals of six feet along all the cross wires, leaving the other ends of the string dangling over the little mounds from which the future hop vine is to spring. Afterward the lower ends are fastened to little iron pegs driven near the hop hills. Something like a million and a half of these little iron pegs are used in the Pleasanton field and no less than 35,000 pounds of string. To complete the stringing requires the work of 150 men for five weeks. Then the field is a wonderful maze of perpendicular threads. There are vistas and narrow avenues and dense forests of these strange white strings dividing the field into narrow alleys as far as the eye can reach. They are the improved hop poles that California has introduced. Their use, instead of the primitive willow poles, has resulted in the growth of a ton and a half of hops to the acre, where but a ton could be obtained by the old method. About the 10th of May the vines begin to come up so that they can be started on the string. Unlike all other vines the hop winds spirally from right to left. If started the wrong way it will not stay on the string.



WORKING IN THE GLARE OF THE SUN.

A HOP FIELD TYPE.

The Oddest Telephone Office in the World



SENDING OUT A MESSAGE.

A MERCURY WITH A CUE.

What is probably the most curious telephone office in the world is maintained by the San Francisco Telephone company. This office is a branch and is located in the heart of San Francisco's extensive Chinese section. It was made necessary by the fact that the Pacific states and Sunset Telephone company has more than 250 Chinese subscribers in San Francisco and as many of these subscribers do not speak English at all, or at best imperfectly, the telephone girls who deal with the general public found themselves unable to cope with the foreign tongue. The result was the establishment of the Chinese exchange, by means of which all the Chinese business is handled. For instance, if you desire to talk with a Chinese silk merchant or with the cothurn Chinese consul, Mr. Ho Yow, you call for 125 China, or whatever the number may be instantly a mellow voice with an oriental accent and a charming inability to

pronounce the letter "r" answers you and gives you, swiftly, and with never a mistake, the number desired. The principal stores in Chinatown, the restaurants and the clubs—mostly gambling resorts. It must be confessed have the convenient telephone which apprises them of custom or gives warning of raids. All are individual lines and over most of them Chinese is spoken entirely. The manager of this unique branch of the system is Loo Kum Shu. He has six operators under him, all Chinese men—the only men employed as operators in San Francisco. The Chinese hello boys are Chin Soy Sing, Albert Buo, Bing Gay, Chin Li, Chin Sing and Wie Park. Three operators are on duty during the day and three during the evening, and one stays all night. The little Mongolian Mercury who carries the messages is Yick Chun. The custom of the Chinese requires that

all visitors and customers who call to use the telephone must be entertained while waiting for the public telephone booths. Tea and tobacco are furnished at the company's expense for this purpose, and when the operators are not answering calls, they are brewing scented cups of amber liquid. A change is shortly to be made in the Chinese station and then Chinese girls will be substituted for the male operators. The increasing volume of oriental business demands larger quarters, which have already been purchased, and the company finds that girl operators serve its purpose better than men. Every little while a difference of opinion between an operator and a subscriber is settled at arm's length out of office hours. This mode of arbitration disturbs the equilibrium of the service and never happens when the operator and the subscriber are of different sexes.

Rough, with hundreds of minute, hook-like tendrils, the creeper clings to its support and keeps growing upward until it gets a hold on the top wire. From the 12th to the 15th of July the vine begins to blossom. During that period and on to the end of July the male hop vine, one of which is planted for every 100 female or productive vines, scatters its almost imperceptible dust-like pollen, or bees carry it to the neighboring blossoms, which are fertilized and strengthened. Instead of the cone-shaped flowers, the male vine has little grape-like bunches of small brown seeds, which burst open and scatter the pollen in the air. In Europe male vines are not used, and the hops are not so powerful. The picking season commences between the 5th and 10th of September and lasts from three to five weeks, according to the size of the crop. An average good crop is 1,500 pounds to the acre, and land producing such hops sells for between \$300 and \$500 an acre. Weeks before the picking season the superintendent engages his men. They are not deserting the field when they are most needed, the companies generally have a rule by which promissory checks are issued to the pickers for forenoon work and negotiable slips for afternoon pickings. Then, if the picker deserts or is discharged for cause, he forfeits the forenoon payments that would eventually have been made to him at the end of the season. Pay is by the pound, and is based on the prevailing price of the hops. Check slips are issued daily, and the afternoon papers are readily converted into money of its equivalent. The average pay is 85 cents for every 100 pounds of hop blossoms picked. A general average picking is 125 pounds a day, which means about \$1.06 in money. But the large number of children brings the individual average for the season down to eighty-three pounds or 70 cents a day. The biggest pick ever made on the ranch in one day was by a 15-year-old youth, who picked 458 pounds of hops in a single day. His record pick brought him \$3.80, which is the most that an individual could hope to make in a day. Some families come to the hop fields and work as a unit and make \$10 a day right along. Notable in many things, this Pleasanton hop plantation employs something but white labor and permits no intoxicating liquors on the premises. The result is that a superior class of pickers is attracted to the place and not a few women and young girls of apparent refinement are to be seen among the 800 persons constituting the harvesting force, which in heavy seasons sometimes reaches a total of 1,500 or 2,000. The picking force is divided into sections of about 200 persons each with one weigher and one field boss for each section. Each picker pulls down a vine and plucks off his hundreds of little light blossoms into a large open basket. As the basket is filled it is emptied into a scale. This in turn is carried to the scales, weighed and receipted for, and tossed up on the wagon to be taken to the kilns. The bags look bulky and heavy, but the blossoms are very light. It is the duty of the field boss to see that no dirt or leaves are plucked with the flowers, and as a double precaution each bag is tagged with the picker's number, so that any carelessness or attempted cheating in weight is quickly discovered at the kilns

and the offender fined or discharged and deprived of the value of all his morning checks, no matter if it be his last day of the season. The system insures honest service. From the field the sacks of hop blossoms are drawn to the kilns and loaded on a big open elevator and carried to a porous floor, where the hops are distributed to a depth of sixteen inches. Twenty feet below is a furnace, the heat from which rises and passes through the bur-lap and on up through the hops, the open and lofty ventilator acting as a chimney. On top of the furnace is placed about forty-five pounds of sulphur, which is ignited by thrusting into it a red-hot horseshoe. The sulphur fumes and the heat pass through the hops for three or four hours. Drying and bleaching lasts about twelve hours, the hops being turned over during the last hour to complete the tempering. After this treatment the side of the drying-room is raised, and men with great push-hoes of wood, shove the dry hops out into an enormous car on an elevated track, along which the load is conveyed to one of the cooling houses. From 3 1/2 pounds of green hops, the blossoms dry down to one pound of marketable hops. In the dry state the blossoms are fluffy and light. Whole warehouses filled with them and awaiting their turn to be simply a mass of unglue, leathery stuff, into which a man sinks and disappears as readily as though he had fallen into water.

At the end of each of the cooling houses is a press for forming the hops into solid bales securely sewed up for shipping. Each bale weighs about 195 pounds. At Pleasanton 100,000 pounds of hops can be handled at the kilns in a day. There are six elevators, two for each kiln building and twelve kilns, each supplied with a furnace. The kilns are thirty feet square, and each one is fitted with a system of sprinklers by which water may be turned upon the room in an instant. As all the buildings are of corrugated iron and as hops are not inflammable, there is no fear of fire. Hops have a thousand uses besides the common ones of making malted drinks and light bread. When made into a compress and heated they form an efficacious hot application for the body. Mixed into a decoction with oat meal and water they are beneficial for ulcers. Made into a bath they relieve some internal diseases. Placed in a pillow they induce sleep. Steeped and drunk as tea they are good for the blood and for fever. The root of the hop is sometimes used as a substitute for sarsaparilla. The young shoots, when cooked as asparagus or greens, make a palatable bitter relish. Hop buds make a good salad. Green hop vines pressed into a mass and allowed to ferment make good cattle feed. From the fiber of the hop vine are made strong ropes and textile fabrics.

A Cowboy Gallant Gives a Lesson in Street Car Etiquette

At last a strenuous champion of women, who are forced to stand in street cars while horrid men take refuge behind newspapers and keep their seats, has arisen and boldly proclaimed the fact. The individual in question is something of a Carrie Nation, and his name is F. M. Tomlinson. He arrived in Minneapolis yesterday from Chicago. He is an old-time cowboy, and hails from Henrietta, Texas. When he gets on a rampage in behalf of woman's rights, he is like a Texas steer in a stampede. Mr. Tomlinson began work in Minneapolis immediately upon his arrival. He conceives that the town isn't as bad as most cities in making women stand in street cars, but he says there is room for improvement. It was on a crowded Como-interurban car inbound from the state fair that Tomlinson led his first crusade to-day. He carried the war right into the enemy's country and provided all the women on the car with seats. When Tomlinson swung aboard many women were clinging

limply to the straps, while as many men stolidly kept their seats. Inflicting his lungs, Tomlinson suddenly roared out: "The gentlemen will please stand and give the ladies their seats." Then, to lead weight in his words, Tomlinson stepped into the car so that every one could get a good look at him. He is over six feet tall, and as his pistol pocket had a suspicious bulge, the men gradually—some good-naturedly, others grumblingly—relinquished their seats. "When one man suggested that Tomlinson had 'had too many,' the reformer exclaimed: "Shut up, you tenderfoot," and the man subsided. At almost every block where the car stopped, the passengers were advised from the platform: "Here comes two ladies. Two more gentlemen rise and give the ladies their seats." a command which the men made haste to obey. All traces of ill-feeling had departed when Tomlinson finally left the car, and everyone bade him a hearty "good-bye."

Trade Secrets Lost Long Ago

Although marvelous strides have been made in almost every branch of knowledge in the last 100 years, secrets known before the beginning of that period have been lost. For instance, thousands of years ago the Egyptians used to embalm the bodies of their dead kings and nobility so perfectly that the bodies are in wonderful preservation to-day. The valuable secret is lost, and modern science cannot recover the lost knowledge. We can, of course, and we do embalm bodies, but only for temporary preservation, and, comparatively speaking, in a most unsatisfactory manner. Bodies which are embalmed nowadays will not be preserved for more than a few years at most; very many of the bodies the Egyptians embalmed before the birth of Christ are still so well preserved that the lines of their faces are as clearly marked to-day as when they were first embalmed. Sheffield turns out the finest and hardest perfect steel the world produces, but even Sheffield cannot produce a sword blade to compare with those the Saracens made and used hundreds of years ago, and the Saracens never possessed the machinery we have, nor had the advantage of knowing so much about metals as we are supposed to know. There are a dozen different methods of making artificial diamonds, but none of the stones produced by these methods compare with those made of old French paste, the secret of which is lost. It was difficult for even a person with expert knowledge of diamonds to tell that they were artificially produced, whereas most of the modern artificial diamonds can easily be detected. People do not know how to put stones and bricks together as the ancients did, and consequently the buildings raised

nowadays are really mere temporary structures and will be by no means when the ancient buildings of Greece and Italy, which were built thousands of years ago, are in as good condition as they are now. The secret is not in the bricks or the stone, but in the cement and mortar, neither of which essentials can the moderns make as the ancients made them. In modern buildings the cement and mortar are the weakest points; in buildings which the Romans and Greeks raised thousands of years ago the cement and mortar are the strongest points and hold good while the very stones they bind together crumble away with age. We cannot, with all our science, make such cement and mortar. Modern chemists cannot compound such cements as were commonly used when the great nations of to-day were still unborn. Now and again it happens that searchers after antiquities come across fragments of fabrics which were dyed thousands of years ago, and they are astonished by the wonderful richness of the colors of the cloths, which, despite their age, are brighter and purer than anything produced nowadays. Modern artists by their colors ready made and spend large sums of money on pigments with which to color their canvases. The pictures of modern artists will be colorless when many of the works of ancient masters are as bright as they are to-day. Just as the secret of dyeing has been lost, so has the secret of preserving the colors of artists' paints. Yet the secret was known to every ancient artist, for they all mixed their own colors. Look at any letter, five or ten years old, and you will probably notice that the writing has faded to a brown color and is very indistinct. Go to any big museum, and you will find ancient manuscripts,

INDIAN CAMP ON PHELPS ISLAND

A Family of the Shakoee Band That Finds Lake Minnetonka a Congenial Home.

Phelps Island has had one camping party that has had an uncommonly large number of visitors and the visitors have shown the keenest possible interest in the campers. The camp is not a mere summer-time affair, for it has been located in the same spot for about a year, although last winter saw but one of the present campers there. It is an Indian camp and is situated on a point on Cook's bay just opposite to the Baptist assembly grounds. Nearby is a wild rice marsh that is just yielding its harvest. The campers are Indians belonging

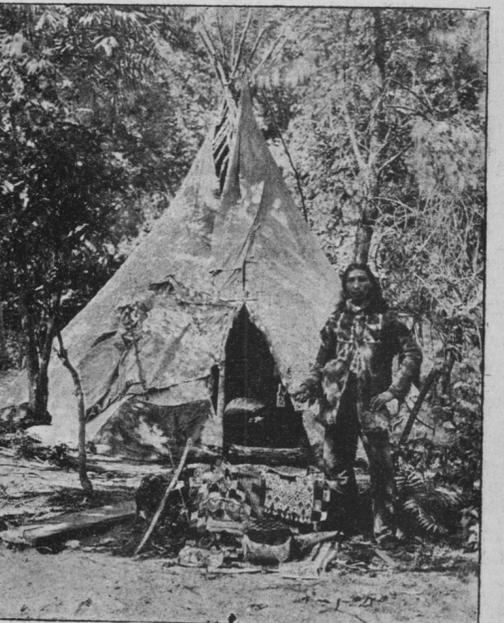
to the amiable towards visitors and they will at least answer questions by "yes" or "no," grunts, or signs. One is shrewd and unerring in her bargains and knows all about the value of money; the other shows some uncertainty on this point and frequently refers to her companion. The wares of the women are birch bark baskets and small canoes, moccasins and patchwork quilts. The former have no interest in themselves, although they will serve the purpose of souvenirs. The moccasins are well made but the embroidery is done in crewels and coarse beads instead of fine beadwork in which the



CHIEF DAVID LA TROMBOISE.—Photo by A. S. Williams.

ing to the Shakoee band, and include Chief David La Framboise, his wife, his mother, his sister, Mrs. Ortery and a 7-month-old infant, John Ortery. The family has one tepee built in the typical Sioux fashion, although canvas is used for covering instead of hides as in the primitive times. Behind this tent with a floor and awnings and other tents are put up as they are wanted. The camp cooking is done in outdoor fashion over a campfire some distance from the tents, and the abundant supply of iron pots and long-handled cooking utensils are hung on pegs in tree trunks nearby when not in use. The location of the camp is a beautiful one and is very convenient to some of the best fishing grounds on the lake as well as the rice marsh. The secluded bays and small arms of the upper lake contain much wild rice which has always attracted the

Indian women formerly excelled. The birch bark instead of being embroidered with colored porcupine quills is also embroidered with crewels. This may be in part for lack of the raw materials. Even the birch bark, according to the women, has to be sought at a distance for it does not grow in any quantity about Minnetonka. The quilts on the contrary are well made and in a great variety of patterns put together in tasteful color arrangements. In most of them only a limited color scheme is used instead of a hit and miss arrangement of many colors and patterns in cottons. The pieces used are remnants secured from St. Paul shops. One of the women goes in to obtain these and to attend to other business. On her trips she always carries a basket of wares for sale and disposes of them on the street in St. Paul. Often her basket is



THE CHIEF AND HIS MOTHER.—Photo by A. S. Williams.

Shakoee Indians who have always been occasional autumn visitors to this region. Last year Chief David became so much pleased with the place that he decided to remain for the winter. He is well educated and a willing worker and has been employed in various kinds of work by different residents in his locality. He is an interesting talker when disposed to conversation. The numerous visitors during the summer who were so fortunate as to find the chief at home and to get him to talk were well repaid for their visit. The women all understand English but are less disposed to sociability. The anciently turned out hundreds of years ago. But the average glass manufacturer cannot produce anything that could at all compare with some of the commoner articles the Egyptians, and, later, the founders of Venice, manufactured; and those who still hold the ancient secret guard it so closely that it will probably die with them.

largely filled with nicely arranged bouquets of water lilies, lotus lilies and woodflowers. The baby is an interesting little chap, of large size for his age, and his light copper-colored skin is as smooth and soft as the cheek of a peach. He is very friendly with strangers, and the way to get Mrs. Ortery to talk is to pay attention to the baby and use him as a subject for the conversation. This the visitors did quite naturally, for he is the most interesting feature of the camp. He is quite a roly-poly little fellow, and his beaming smile does not seem to accord with the traditional stony stock and immobility of the Indian nature. He is not rocked in a basswood cradle, but has instead a very modern looking hammock, hung almost at the water's edge.

the writing of which is as black and distinct as if the manuscript were written the day before yesterday. The secret of glassblowing and tinting is not yet entirely lost; there are still a few men who can produce glass work equal to the things of this kind which the ancients turned out hundreds of years ago. But the average glass manufacturer cannot produce anything that could at all compare with some of the commoner articles the Egyptians, and, later, the founders of Venice, manufactured; and those who still hold the ancient secret guard it so closely that it will probably die with them. Harsh purgative remedies are fast giving way to the gentle action and mild effects of Carter's Little Liver Pills. If you try them, they will certainly please you.

TAKING THE CHANCE. Punch. Genial Doctor (after laughing heartily at a joke of his patient's)—Ha, ha, ha! There's not much the matter with you. Though I do believe that if you were on your deathbed you'd make a joke. Irrepressible Patient—Why, of course I should. It would be my last chance. G. A. R. Comrades! Remember your friends! The Minneapolis & St. Louis R. R. has made the cent mile rate \$14.82 to Cleveland and return Sept. 7, 8 and 9. Reserve your berth in tourist sleeping now. E. W. Mortimer, Post Dept. Commander, No. 1 Washington Avenue S. Carey Flexible Cement Roofing, best on earth. W. S. Nott Co. Telephone 378.