

# CHICAGO'S \$45,000,000 DRAINAGE CHANNEL

WITH the completion of the great drainage canal, the taxpayers of Chicago can reckon the enormous sum of \$33,000,000 they have put into this big ditch, a possible incidental expense of fifteen millions farther along. It is a monument to the engineers of the people to secure pure water, and yet it is estimated that out of 2,000,000 people residing in Chicago, 1,800,000 have never seen the canal, of whom a large proportion do not know where it starts or where it almost passes understandingly. It is a gigantic work that has been ac-

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plished—and the labor done shows that it is possible to construct the Nicaragua Canal 50 per cent. cheaper than was anticipated. It was a little something for the engineers to dig a ditch through sand for the construction of the Suez Canal. It was heroic for the workers to face fever and malaria at Panama, the Erie Canal was quite a bit of work, but in cost, in magnitude, in difficulties to overcome, the drainage channel of Chicago is not rivaled by these.



BEAR TRAP DAM, LOCKPORT.

ably more than 100,000,000,000 people to consume it. It is spread flat over the surface of the earth to the depth of one inch, it would cover Illinois, Minnesota, Wisconsin, Iowa, Missouri and a good portion of Nebraska. Could it be attenuated to a depth of three and a half feet, a row boat could travel over it for more than 800 miles. If a fire engine, throwing 1,200 gallons of water per minute, were to attempt to pump the channel dry, it would be occupied over 800 days in doing so. In continuous depth it is the largest channel in the world constructed by man, over 40,000,000 cubic yards of material having been taken

out of it, of which over 12,000,000 cubic yards is rock. More than 100,000 men have been employed in its construction, the largest number of men at work at one time being 8,000. The possibility exists of developing along the channel a water power equal to 21,000 horse power. Public sentiment at present is against utilization for mechanical purposes, but the power which can be developed would be sufficient to illuminate every street and alley in Chicago with electric light. Less than two score of lives have been lost in the construction work, and no wages have been paid of less than \$1.50 per day for labor. Between \$6,000,000 and \$7,000,000 worth of land was purchased by condemnation or otherwise for the right of way.

The history of the construction of the canal is interesting. After years of preliminary surveys and figuring, precedent necessarily to such a gigantic undertaking, earth was first broken in the great waterway on Sept. 3, 1892, on the Lemont rock cut, and the day has since been celebrated as "school day" on each succeeding anniversary. Since then the contractors have cut through twenty-eight miles of solid earth and rock, making a canal approximately 160 feet wide. If the earth, loosed were dumped into Lake Michigan, into forty feet of water, it would make an island a mile square, rising eight feet above the surface of the water.

The river or channel, no great discoloration of the water will take place. The inhabitants of the Valley of the Illinois, those of Joliet, will not suffer an effect from the waters of the channel. The old picture which was drawn of Joliet overcome by fumes from the stream of the channel is a false one. The water will be entirely pure when it passes through Joliet and enters the Illinois River. In fact, it is believed that it will be purer than the water now in the Illinois.

An element of the construction of the canal was the effort systematized to control the large number of workmen employed, and maintain peace and order throughout the sanitary district. A force of sanitary police was enlisted, a uniformed, organized body, which did excellent work in preserving the peace and enforcing the laws. It will be readily understood that this great body of workmen, not of the highest order of intelligence at best and surrounded at the start with a hundred and one low dives and saloons which sprang up in the canal towns and settlements, were a bit hard of management. But there never was any serious trouble on the channel, not a strike of any consequence or a riot. Pay days brought the usual grist of drunkenness and slight affairs, but no trouble as serious as was anticipated by the city police ever occurred.

The \$33,000,000 expended on the drainage channel is a large sum; it is fully two-thirds of the cost of cutting a ship canal to connect the great lakes with the Mississippi, navigable to all steamers plying between New Orleans and St. Louis, when plans for changes



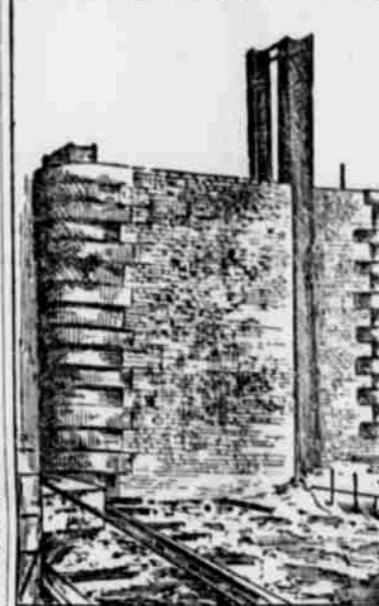
LOOKING UP THE CHANNEL.

luted by the time it reaches the great river it will make the Illinois far cleaner in appearance than the Mississippi is now, and so far as the fears of residents of St. Louis and towns in Central Illinois that the drainage channel will bring disease and death to them are concerned, eminent scientists have declared that fish will live in the drainage canal throughout its entire length. With the lake pouring into the Chicago river channel at a speed of one and one-fourth miles per hour fishermen may cast their lines from any of the docks along the river, which will be filled with pure, clean lake water.

The channel offers a picturesque way for light water craft from the lake to Lockport that can be equaled nowhere so far as safety is concerned. The journey down the stream through the beautiful Valley of the Desplaines is extremely odorless, none of the foul features of the old State canal are present. Engineers claim that for the first time in nearly forty years fish can live in the Chicago River. Some people do not know that fish cannot live in the river at present. This is true. The

river is so nasty, so filled with sewage poison that even the toughest of fish will not approach it.

Some, however, say also that it will be possible to see the bottom of the Chicago River, something the present generation of citizens has been deprived of. From the Illinois Central's bridge at the mouth of the river to the end of either branch no glimpse of the river's bottom is now possible. Within the coming year it is believed all of the secrets of the depths will be revealed. Instead of having a bottom of mud, the river will replace that with



SECTION OF WATER GATE.

sand. The coagulated masses of sewage will disappear. Where there has been no current there will be a rapidly running stream, sweet and pure. The mass of filth which has accumulated at the stockyards will disappear. The foul air which has infected the district about the yards will be replaced by pure air. While the sewage will be immediately perceptible at the mouths of the sewers where it enters

the river or channel, no great discoloration of the water will take place. The inhabitants of the Valley of the Illinois, those of Joliet, will not suffer an effect from the waters of the channel. The old picture which was drawn of Joliet overcome by fumes from the stream of the channel is a false one. The water will be entirely pure when it passes through Joliet and enters the Illinois River. In fact, it is believed that it will be purer than the water now in the Illinois.

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## GOING ABOUT INCOG.

### MONARCHS SOMETIMES HAVE STRANGE ADVENTURES.

Amusing Stories of Royal Personages Who Have Divested Themselves of All Signs of Their Rank and Traveled as Common People.

Many amusing stories are told of the adventures of royal personages when they have divested themselves of what may be called their official dress and assumed the guise of ordinary mortals. And none loves more to tell these tales of misadventure than the royalties themselves.

The Czar still recounts the story of an experience he had some years ago in Scotland. It was in the early days of his cycling enthusiasm, and he was riding in company with Princess Maud. When the royal cyclists were walking with their machines up one of the steep hills near Hainfoor they overtook an old Scotchman, who wished them "good-day" and seemed disposed for gossip. The young pair entered into the spirit of the adventure and chatted merrily about their cycling until they reached the top of the hill. Before they remounted the garrulous old man looked wonderingly at the machines and said: "Weel, weel, they're grand things for you toon lasses and laddies." When they had got out of hearing the royal pair literally laughed until they cried, and the Czar even yet answers to the name of "the toon laddie" among his cousins.

Not many months ago the German Emperor sustained a shock. Like King Leopold of Belgium, the Kaiser loves occasionally to take a solitary ramble in the country. One day last summer while at Potsdam he had wandered farther than usual, and at dusk found himself, dusty and weary, still a dozen miles from the palace. When at this stage a country woman driving a cart overtook him he greeted her politely and asked her to allow him to take a seat in the cart. The woman looked down critically at the dusty and disheveled man, and whipping up her horse said: "Not me; I don't like the looks of you." Some distance ahead a mounted patrol stopped the woman and asked what the Emperor had said to her. "The Kaiser?" she queried in amazement. "What Kaiser?" Then, as the truth gradually dawned on her she turned pale, gave a frightened look at the dusty figure coming nearer and drove rapidly away.

Ex-Queen Emma of the Netherlands and her daughter, the Queen of today, had many amusing experiences in their wanderings incovert. Last summer, when they were staying at one of the hotels in the Tyrol, the young queen won all hearts by her sweetness of disposition and vivacity. There was one young Englishman who was so overcome by her charms that he followed her everywhere in spite of a frowning mamma, and it must be said, with some mischievous encouragement from the daughter. His attention at last became so marked that one day the young girl and her mother disappeared without warning, and it was only some days after the young Englishman learned through the newspapers that the young lady he had wooed so persistently was the Queen of Holland.

Many good stories are told of the curious adventures of Queen Margaret of Italy on her mountaineering excursions. The story of how she entertained a party of tourist climbers in one of the mountain huts is well known, but few who have heard of another little adventure which befell her last summer. The Queen, whose energy is always the envy and despair of her suite, had wandered away from her attendants, and had not only lost her way but was both hungry and fatigued, when she saw a peasant's cottage in the distance. Making her way to it, her knock was answered by an old peasant woman, whom she asked for rest and refreshment. "Come in, my dear, and welcome," the kindly old peasant said. The Queen entered and insisted on helping her hostess prepare the simple meal of milk and bread. When the belated attendants reached the cottage they found the Queen and the old woman gossiping and eating with all the freedom of old friends, and it was not until some days later, when a handsome present arrived at the cottage, that the woman learned how she had entertained her Queen.

### BANGOR'S DEAL TRADE.

#### Once Prosperous Industry in the Old Maine Town Gets New Life.

Bangor's deal trade, after many years, has come back again, and to-day there are scenes along the river that recall the times when millions of Penobscot logs, sawed into thick planks, were shipped away every year to the ports of the United States and all over continental Europe—the times when prices of lumber and everything else were high, and when the Yankee wooden sailing ship was still a queen in the fleet and a winner in the race for the world's deep-water commerce. As Annie Pixley used to sing with tender regret "of the days of '49," so the Bangor sailor and lumberman sings in his heart of the days just before or those after the war, when ships were many here and business brisk.

Away back before the war Bangor did a smashing business in lumber with many ports in four continents, and after the war the business was revived to some extent. Countless millions of feet of deals were sent to the United Kingdom, and vast quantities of "3-by-9 stuff" to South Africa, while the wealth of Penobscot's clear and wide white pine was scattered all over the West Indies. Prices were for the most part good, wages high for stevedores, freights also high, and sailors' pockets were seldom empty. Times were flush in the port of Bangor in those days.

The vessels that used to come to Bangor in that time for foreign loading were among the best specimens of wooden construction ever turned out anywhere, and the fleets that used to gather at High Head docks were a delight to the sailor's eye and a satisfaction to the heart of all patriotic Americans. In recent years there have been some notable sea congresses at these same docks, but there is a vast differ-

ence between the old fleets and new. Nowadays the foreign trade done almost entirely in foreign tons, and even the foreign sailing ships are being crowded out by British and Norwegian tramp steamships carry so much at a load and go quick and cheaply.

But Bangor is shipping deals with a lot of other stuff, to foreign ports, and is glad of it, even if the news is done in foreign steamers. Year 20,000,000 feet of deals were ped, and this year the exportation is as much or more. Some of the steamers take as much as 2,000 feet; others from 1,000,000 to 1,500. One of last year's fleet carried 3,000,000 feet.

The tramp steamers load quick and carry a big cargo, and cross the in about fourteen days. They carry men, have no repairs that can be on this side, and leave little money in the port, which is one reason why they are not liked. Sometimes as many four or five of the deal steamers in Bangor at a time, loading or waiting for cargo, and strangers are sure to see such big ships so far up a water river. Some of the steamers of 3,000 tons gross, and draw twelve and twenty-four feet of water. But the Penobscot is a river, and with the expenditure moderate sum for dredging could be made safe for almost any vessel of navy, at a distance of twenty-five miles from the head of the bay.

### Old Laces.

It was linen, embroidered and cut-work, sometimes combined with what is now known as drawn-thread work, from which the laces of to-day evolved. The cut-work was made by the nuns when practically all industries were carried on within the walls of the convent. "Nuns' work" it was called, and an old manuscript is extant which sets forth that a certain great lady was "as well skilled in needlework as if she had been brought up in a convent."

From the darned netting to the lace with light ground, such as are used now, is an easy transition; then the beautiful "stitches in the air," as distinct from stitches worked on a firm ground, was made, and the evolution of lace was complete.

It is delightful to think that the finest stitches which were employed at Venice, Alencon and Argentan, when those places were at the height of their glory in the sixteenth and seventeenth centuries, are not a forgotten art. By means of microscopes and patient toil on the part of the workers, the method of making the delicate effects has been rediscovered and is used in the factories of to-day.

Should one go into a lace shop now and ask for "a pretty winter lace," "a nice length of spring lace" or a "useful autumn variety," the seller would doubtless think the designing purchaser was a lunatic. In the reign of Louis XV., however, no such idea would have entered his head, for so popular was lace that the fabric was specialized in this manner. Argentan and Alencon—rather thick and massive laces, for those days the designers were still under the Venetian influence—were called "winter" laces; the fabrics of England and Mechlin, on the other hand, were "summer" laces.

### How They Earn Pin Money.

The English society woman does not hesitate to turn an honest penny in many ways which women of equal standing in other nations might consider infra dig, says a writer in Harper's Bazar. It is a recognized fact that many a well-born dame has traded upon that station of life in which Providence was pleased to place her by selling the entrée to the most select drawing-rooms to such of her newly rich countrywomen as desired to purchase the privilege; also, the noble lady of limited purse will lend her name to the invitations and her presence at the entertainments of the socially ambitious woman who is able to pay for the benefit to be derived therefrom. Latterly many stories have been told of some American women who have thus gained a foothold upon the social ladder of the English metropolis. Only this season it has been rumored that Miss Astor was being chaperoned by an impetuous countess of Scotch extraction, who was to be reimbursed for her time and trouble by the tidy sum of \$15,000. An easy way to pay one's tailor's bills has been devised by another member of the British aristocracy, who has allowed the aforementioned tailor to print the following advertisement in a number of fashion journals: Lady Mary Sackville writes, saying — of — street is the only tailor who has ever given her a long-waisted effect."

### Propagating Cuttings in Sand.

There are many plants purchased which could be easily produced from cuttings, and such work should be done early in the year. The Kansas Experiment Station has given this matter its attention, and has made the work understood, especially on the part of women, who have heretofore relied mostly on outside sources for new plants. It is not too soon to begin rooting the cuttings of plants in February or March, and it may be also done later. Geraniums that are from cuttings early in the season should be covered with blossoms in summer. Among the plants that may be propagated by cuttings are the coleus, geranium and other plants. They may be started in a box in a window, the box to be of any size desired and five inches deep, filled with clean sand. When the cuttings are first made they should be shaded during the heat of the day, and sprinkled several times a day until the cuttings become thoroughly established, the sand to be kept always moist and wet. Cuttings are also sometimes rooted in a deep plate filled with sand that is kept moist. It is not difficult to secure plants from cuttings with care in the work.

### Visitor to Shakespeare's House.

The annual meeting of the trustees of Shakespeare's birthplace was held the other day at Stratford-on-Avon. The committee reported that during the year more than 34,000 persons had paid for admission to Shakespeare's house, representing thirty-five different nationalities, and more than 100,000 had visited Anne Hathaway's cottage at Shottery.

# Insurance

Small lots of ends very low

Small lots of ends very low

# CHAMBERS

the State... which he expressed... and yet he was willing... trial. He therefore announced... in this way: "You... you will give me your word... won't steal when you get to Albat... I'll see what can be done about sending you there." Judge Grover, replied to the young man, drawing himself up with great dignity, "I go to Albany unpledged, or I don't go at all."

Mrs. Sallie Marshall Hardy, who is a descendant of Chief Justice Marshall, visited the Supreme Court chambers in Washington recently, and was introduced to Justice Harlan by a functionary of the court. She was then seated under the bust of her distinguished ancestor, and Justice Harlan whispered to Chief Justice Fuller: "That little woman there under Marshall's bust is his great-granddaughter." The Chief Justice looked toward the little woman, and then said: "Tell her I am afraid the bust may fall on her." "I'm not afraid," returned Mrs. Hardy; "nothing on earth could please me so much as to have my great-grandfather's head fall on my shoulders."

An Australian, coming up on a recent steamer, fell in with two sharpers who led him into many wagers. They were so invariably successful that he became suspicious that they were "fixing" the bets, but each new proposition was so tempting that he could not resist it. At last, when they approached the Golden Gate, he counted up the remnants of his roll. "Gentlemen," he said to them, "I find I have just twenty-two dollars in American money left. Now, I will risk it all if you will let me name this last bet." The others were curious, and knowing they could not lose much, consented, and asked what his proposition was. "It is this," he said; "I'll bet you twenty-two dollars that I can yell louder than the ship's steam-whistle. Of course, I'll lose," he added, "but, by Jingo, I know the whistle can't be fixed."

Frank L. Stanton tells in the Atlanta Constitution of a couple who applied to a rural justice of the peace for total divorce. The justice called the bailiff and asked in a whisper: "What's the law on that pint?" "You can't do it," replied the bailiff; "it don't come under your jurisdiction." "We're willing to pay cash for it," replied the husband, not understanding the nature of the consultation; "I've got the money in this here stockin'." The justice looked grave. Then, adjusting his spectacles and addressing the man, he said: "You knowed 'fore you come here that 'twarn't fer me ter separate husband an' wife, an' yet, you not only take up the time of 'this here valuable court with yer talkin', but akechully perjure ter bribe me with money! Now, how much has you got in that stockin'?" "Bout six dollars an' a half, yer honor." "All right, then, I fine you five dollars fer bribery, an' a dollar an' a half fer takin' up my time with a case what my jurisdiction is out of, an' may the Lord have mercy on yer soul!"

### Why Purple Becomes Imperial Color.

Purple became the imperial color because of its enormous cost and rarity. The only purple known to the ancients was the Tyrian purple, which was obtained in minute quantities only from a Mediterranean species of shell-fish called the murex. In the time of Cleo, was so excessively dear that a single pound weight cost a thousand denarii, or about \$35 sterling. A single murex only yielded a little drop of the secretion, consequently very large numbers had to be taken in order to obtain enough to dye even a very small amount of wool. Among more than one of the nations of antiquity it was death for any one but the sovereign or supreme judges to wear garments dyed with Tyrian purple. Upon the accession of Julius Caesar a law was passed forbidding any private person to wear it.

### New Explosive.

A German has produced a new explosive. It is composed of liquid oxygen, sulphur and carbon. It has to be prepared just before required for use, and must be exploded by means of a detonator. There is consequently no danger in transport or from an outbreak of fire close to the explosive when ready for service.

### In the Horseless Future.

The following is the Chicago Tribune's prognostication: "What was the matter with that cab-driver you were called to see last week?" asked Doctor Squills. "As nearly as I can describe his case," answered Doctor Kallonek, "it is automobilousness."

### A Pin's Trail.

Jane—I understand she comes of a very old family. Lily—Yes; you can see the family trait in her very clearly. Jane—What trait? Lily—Age.—Tit-Bit