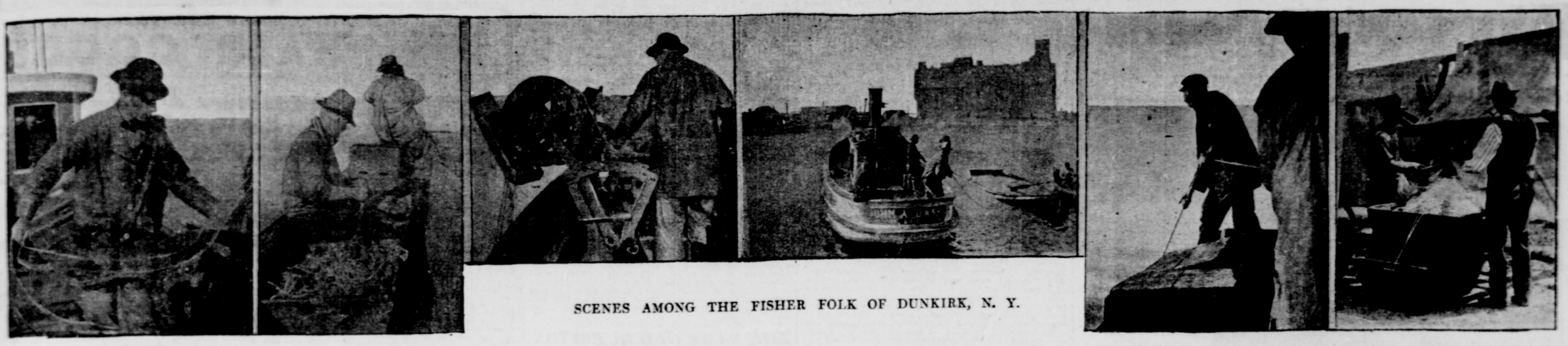

SCENES AMONG THE FISHER FOLK OF DUNKIRK, N. Y.

BID DEFIANCE TO THE CANADIAN CRUISER.

AMERICAN FISHERMEN READY TO FIGHT SEIZURE BY PETREL IN LAKE ERIE.

Dunkirk, N. Y., Sept. 12 (Special).—"That Canadian cruiser will never take my boat," said the fishing tug captain, determinedly. "Never! Not so long as I live!"

He stood at the end of one of the three long, low tumbledown piers which creep out from the curving shore line toward the breakwater which protects the harbor of Dunkirk from the occasional and fierce gales of Lake Erie. He had been talking with a Tribune reporter about the iniquity of the Canadian revenue cutter Petrel in seizing the fishing tug Kittie D. and firing on the Silver Spray for fishing beyond the imaginary line which divides the lake into Canadian and United States waters.

He was tall and straight as a ramrod, this young captain. On his clean shaven face was a fresh water tan. His eyes were as blue as his flannel shirt, and they looked straight into yours, never shifting. In every line of his figure—and few of the lines were hidden by his scale flecked clothes—was strength and determination. He was, in other words, typical of Young America.

"They'll never take my boat," he declared again. The boat, a single decked tug, with pilothouse, galley and engine room forming a continuous and only deckhouse, was tied at the wharf end. The top of the pilothouse alone showed above the pier floor. The swarthy captain reached over and patted it, as though it were a living thing. It did live for him, that dirty little fishing tug, which must be nameless, for obvious reasons, and it made his living besides.

"You have fast engines, then?" suggested the reporter. "You could run away from the Petrel?"

"Not so as you'd notice it," he returned. "She'll do her nine miles an hour, but that's all, and it's not enough."

"Then perhaps you'll stay so far away from the line that there will be no possible chance of suspicion against you?"

"I'll fish to the line itself—yes, I'll lap over it if I want to—but they won't get my boat." His face was grim.

"How do you expect to escape?" the reporter asked.

"I'll fight."

"Fight?" the reporter repeated. "But the Petrel is armed with a 16-pounder and could blow you out of the water."

"The cruiser isn't going to blow anything out of the water as long as there is salvage in it to tow a prize into Port Colborne with a whole hull," said the captain. "He'll try to board us."

"She carries twice as many men as you do," was suggested. "What chance would you have?"

"Chance!" His scorn was mighty. "Did you ever see the day when five Americans couldn't lick twice their number in a sea fight? I've got other things than fish nets aboard and every man can shoot to the mark. I've got a bundle of hickory clubs for short range work, and I can hook up the boiler for a stream of scalding water that will give those uniformed 'Tommies' blisters to heal."

Ask any of the Dunkirk captains, old or young, if they will submit to capture by the Petrel without a fight; the answer is about the same. Most of the captains say they are not going to fish on the other side of the line, but they are not sure that that will save them from the Petrel.

"She ain't particular about no line," said Captain Clyde Jones, who commanded the Kittie D. "I was a couple of miles this side of it when he picked up my boat."

The Tribune reporter found Captain Jones crushing ice in the fishhouse of Desmond Brothers, at the end of the Centre-st. wharf. He is just as much a captain as he ever was, and the ice crushing turn can in no way be considered a punishment, but until the Canadians return the Kittie D. he will walk wharf beams instead of the quarterdeck.

"It was July 3," the captain began, when urged for a detailed account, "and a mist had settled down on the lake. We all ran out of here for the morning fishing, taking our time from the harbor, so as not to run over the line. We had just finished setting our nets when the mist lifted suddenly and we saw the Petrel coming down the line. There were a number of tugs in sight, the Mischler, the Grace and the John Desmond being nearer the line than the Kittie D. They turned on a full head of steam and headed for Dunkirk as soon as they sighted the cruiser.

"Certain that I was in American waters where I had every right to fish, I made no attempt to get away. The Petrel came rushing up to the Kittie, and Captain Dunn sung out that he seized me for fishing in Canadian waters. We were not ready for a fight, and there was nothing to do but follow him to Port Colborne. I was sure I'd get my boat back when the government heard about the way it was taken. We kicked to Washington, and kicked hard, and they have twice demanded the return of the tug and rig, which is worth about $4,500, but it's more than two months now, and she is still in the hands of the pirates."

In the neighboring city of Erie, out of which sixty or seventy fishing tugs are regularly operated, feeling runs high over the Petrel's action against the Silver Spray. The Spray came into port one afternoon a few weeks ago with her hull and deckhouse scarred with Canadian bullets. Captain Shaw and one of the crew narrowly escaped injury.

It was the old story of fishing on, or near, or beyond, the imaginary line, though the Silver Spray, it seems, had not begun to fish when the Petrel held her up. Rather than risk a long struggle in the International courts, Captain Shaw took to flight. The Silver Spray was not built for a fishing tug, but for a passenger packet on the Niagara River. She has clean lines and powerful engines. It was no trouble at all for her to run away from the police boat. That the Petrel would fire on him did not occur to the captain, and it surprised all of the other tug men. Most of them have armed their tugs and promise to return shot for shot.

The trouble which the Lake Erie fishermen are facing is of old standing. Ever since the Petrel came on the lake to care for the Dominion's interests, five or six years ago, there has been more or less conflict. The Kittie D. is not the first boat to suffer seizure. The Grace, which managed to escape from the early July mixup, was captured once. She was clearly on the Canadian side of the line, and it cost her owners $1,800 to get her back. Every year the Dunkirk and Erie fishermen lose thousands of dollars' worth of nets. Last year the cutter took nine hundred nets, some of which were four or five miles long. The nets are taken to Canadian ports and sold for a fraction of their value. When the Petrel has been particularly active there is no market and the nets are given away.

The line which causes all the trouble extends from Southeast Shoals, off Point Pelee, to Middle Island. This gives Dunkirk fishermen eleven and two-fifths miles on the north course and thirteen and two-fifths miles on the north-northwest course. The line is not marked in any way. The fishermen know the speed of their boats, and measure distance by this. It is very easy, however, for them to lose reckoning and get further into the lake than they intend.

The Petrel comes out in the morning from one of the Canadian ports. Her captain steers a certain course so many minutes, and calls it the line. He heads the cutter down the lake, and tells the wheelman to keep her on the course. The tug fishermen say that members of the Petrel crew like to slide over toward the American shore, as it increases their chances of making a capture, with possible salvage money for them. They sight a fishing tug at work and call the captain. He finds the Petrel on the course he ordered followed, and, believing he is still on the line, acts accordingly.

Until this year the fishermen have considered Captain Dunn of the Petrel a very fair man. He has slipped up to many of the vessels of the fleet with this greeting:

"You're on the wrong side of the line. Better take up your nets and go home."

The fishermen would obey and that was the end of it. This easy treatment did not stop poaching, however, and that was what Captain Dunn was there for. He determined to be more severe, and the Kittie D. and the Silver Spray cases resulted. It is said the Canadian Government is going to give him a more speedy boat.

Manager J. Dibble of one of Dunkirk's largest fish companies has a remedy for both fishermen and the government. He holds that the fishing is just as good on the American side, and that the tugs would not cross over if they knew where the line was.

"Mark the boundary line," he says. "Run a chain of spar buoys from one end of the lake to the other. They could be five miles apart, for it is easy enough to see two and a half miles on this lake in ordinary weather. The lake is not too deep and the expense would not be excessive. With the line marked the boats would have no trouble keeping on our own side."

F. E. Gunther, manager of the Co-Operative Fish Company, thinks the United States Government should keep a cutter at the end of the lake.

"There is $1,500,000 invested in this industry," he said the other day, "and we need protection. The Canadians are crowding us more and more each year. The only vessel the government has in these waters is the old Michigan, which is generally chained up to a wharf in Erie. She is fifty-five years old and would not dare go out in a stiff gale. The Ohio State Fish Commission put a steamer on the lake to guard its interests, and I notice that the Petrel does not bother them any more. All we ask for is our own half of the lake—there are herring enough in it for any one—but we do not want that half cut down to a quarter by some cross grained Englishman."

So the matter stands—a sort of armed truce. The Petrel is watching the fishermen, and her crew are telling what they will do when they get their new boat. The fishing tugs are fighting shy of the line and are ready for trouble. The State Department, through the Consul General at Ottawa, is putting up an active defence for the Kittie D., but has been unable to prove her seizure unjustified.

HIS YACHT WON 73 PRIZES

Commodore Pryer, of New-Rochelle, a Veteran Sailor.

The yachtsman who sails on Long Island Sound and makes New-Rochelle finds an imposing house on his starboard and a picturesque expanse of land on his port as he enters Echo Bay.

Good New-Rochellians are proud of the antiquity of the place. The stone monument erected in Hudson Park by the Westchester County Historical Society in 1899 to commemorate the landing of the Huguenots at the place in the park to which the name of Bonnefof's Point was given hbears no date of that landing. The lovers of historic lore will tell you that the Huguenots went there in 1688, gave the city that was to be the name of New-Rochelle, and left a legacy of good fellowship and good work to their descendants.

Echo Bay is an objective point to those who sail the Sound, and the light from Execution winks directly over at New-Rochelle, although Larchmont claims the same intimacy with it and has its yacht club there, although younger than its neighbor club at New-Rochelle. But Larchmont cannot claim the godfathership of the Cup defenders, for the house that the yachtsman sees is the home of C. Oliver Iselin, aptly named All View, and the big white buoys that have been so often planted just out in good water beyond Premium Point have successively been the moorings of the Vigilant, the Defender, the Columbia and the Reliance. The old-time residents of New-Rochelle will tell with pride how young Iselin sailed in his little boat named Dare Devil. He is regarded as the sailor lad of the family of which New-Rochelle is justly proud.

The yachting interest of New-Rochelle is not confined to a few. The New-Rochelle Yacht Club was organized in 1885, with Charles Pryer as commodore; J. H. Ryley, vice-commodore; E. C. Sterling, rear commodore; P. J. Krackel, secretary; Eugene Lambden, treasurer, and Henry A. Gouge, measurer. Their clubhouse was in the little stone building on Echo Island, and Newbury D. Lawton, Henry A. Gouge and others who are well known as boat sailors were enthusiastic in obtaining members. Mr. Pryer had the sloop Curlew as his flagship; Mr. Ryley sailed the sloop Madeline, Mr. Sterling the schooner Leona, Mr. Lambden had the Gracie L., and Mr. Lawton dared wind and weather with the sloop Arab. The Atlantic Yacht Club was in close affiliation with the New-Rochelle, and many of its boat owners carried the flags of the new club, among them J. Rogers Maxwell, with the Shamrock.

The progress of the club was rapid, and within a year from its organization it had a new house on Echo Island. The officers were the same as in its initial year. Things began to be lively at Echo Bay, and yachtsmen bound up-Sound or down-Sound found pleasant company at New-Rochelle, a good anchorage. The regattas of the club were well sailed, and had a list of entries that show up well in the racing records, even in the present days of big boats and big sails.

While there were other clubs on the Sound, there was never a rivalry that harmed the New-Rochelle. Its membership of over three hundred now takes pride in its clubhouse, at Harrison's Island.

The return of Commodore Pryer to office, which he held from 1885 to 1888, and again in 1901, shows how he has been appreciated, and his flagship Eurybia, while a contrast to some of the recently built boats, still shows that she deserved the confidence of her owner. She can hold her own to-day in a piping blow and a rough sea, when the cruises are made under his command.

The Eurybia was launched March 31, 1888, and was designed by Philip Ellsworth and built by John F. Munn. She made her first test of speed in a run of the Atlantic Club, on the following Memorial Day, running away from all of her class, and making Ellsworth, Munn, and her owner happy. She won all the prizes in her class in all her races, except at the New-Rochelle regatta, when she was dismasted, towed to her anchorage, and the club signal displayed upon a boathook, fastened to the stump of the mast, when the boats came in.

Her last race was sailed in June, 1901, against six class competitors, and the old boat won by over a minute and added the seventy-third piece of silver to the collection in the treasure closet and sideboard of her owner, at his ancestral home known as the Cedars, at Larchmont.

Boat sailer as a lad, and boat sailer as a man, the commodore glories in the Eurybia, although she has been outbuilt and outclassed by the modern flyers. To him she may not be a racer under the timekeeper's watch, but she can wait, when the cruise begins, till the last of the fleet has crossed the line and then be at destination with sails furled to take the time when the first boat comes in.

Under his leadership the club does well. Conservative and careful, he is enthusiastic in maintaining the dignity and prestige of the club. There are hearty welcomes, and the enjoyment of rare old vintages at his ancient house. His library is his pride, and his membership in many clubs keeps him busy when he tires, for the time, of looking at his collection of antique coins, antique furniture and curios of rare value. His yachting cap is always ready for use, and the yacht which he loves, with its story of comfort, speed and safety, is the first in commission and the last one out of commission when the seasons come and go.

CHARLES PRYER.
Commodore, New-Rochelle Yacht Club.

CHARLES PRYER'S YACHT EURYBIA.

A LONDON WORKHOUSE.

Hard Work and Slim Diet for the Inmates.

"London workhouses are under the jurisdiction of the Local Government Board, and that body has seen fit in its wisdom to draw the line which separates young men from old men at one's sixtieth birthday," writes an inmate of one of these houses to "Chambers's Journal." "I shall treat chiefly of the young men, quorum pars fui.

"There is no stone breaking done in the Princes Road Workhouse, as in most other places of the kind, the only task works being grinding nine pecks of corn on a mill per day and picking four pounds of oakum. Not all of the men adjudged to the latter task can finish it, and, so far as my observation went, very few, indeed, were able to empty their mills before bedtime. I had one day on a mill myself; and, with my utmost efforts at the cruelly monotonous work, I succeeded in turning out only five pecks. It is an exercise that can be confidently recommended as a cure for obesity, only that is not a common complaint among the inmates of a workhouse. Like every other contrivance of the sort, devised to measure up to a man's full strength, there is a knack in it which, if the operator is lucky enough to hit upon it, will enable him to come off successfully; but even then it is work which, as the men pithily express it, 'wants doin'.' The secret of oakum picking is, I believe, much more easily compassed, it being not so much a matter of sheer strength and endurance as of patience and ingenuity. The taskmaster—the officer who has the power of making your life miserable or tolerable in the workhouse—can see at a glance whether a man is trying to do his level best on the corn mill; and if he finds him really unable to finish the allotted task, he puts him next day on something else more within his strength—that is, if the mill, on its part, fails in its chief function, which is to drive its sole bodied manipulator out at the gate. All the other work is of a general kind—sawing and chopping wood, scrubbing floors, cleaning stairs, passages and windows, and painting, all of which are carried on under the supervision of the lynx eyed labor master.

"The dietary scale for the young men is as follows: On three days of the week there is a meat dinner of five ounces of boiled beef, with a thin, white gravy, potatoes and four ounces of bread. On Monday dinner consists of a pint of pea soup and six ounces of bread; on Wednesday and Saturday, six ounces of bread, with a piece of cheese and an onion, and a pint of an unheard of species of soup, made of oatmeal and a few vegetables. In both kinds of soup there are always placed a few small cubes of left over meat of the toughness of gutta percha, and absolutely tasteless, which I make bold to hold responsible for the prevalence of nightmare in the young men's dormitory on the nights following the soup dinners. On Friday perhaps the best dinner of all is served, a round of suet pudding, which, in my own case at least, eased the qualms of an ever besetting hunger better than ever did the meat (beef, never mutton), which was almost always tough and cartilaginous, and devoid of all natural flavor.

"Breakfast consists of six ounces of bread, with a pat of butter and a liberal pint of tea, except on Tuesdays and Thursdays, when a basin of good oatmeal gruel takes the place of the tea, to the disgust of many, who will not touch the 'skilly,' as they contemptuously call it. Supper or tea consists of the same allowance of tea, bread and butter as at breakfast, on three nights of the week, cheese taking the place of butter on three other nights, and Thursday night being reserved for the discussion of a thin beef or mutton broth (with six ounces of bread), which the men scornfully designate as 'fly water' and is the theme of endless jesting. In this menu the bread and butter are invariably good, so are the tea and the gruel; the cheese, generally good, comes too often (five times a week); the potatoes are often poor, and the meat, at its best, is innutritive and insipid to a degree not at all due to its qualities as it comes from the hands of the butcher.

"And now I will describe briefly the work I had to do on this diet, premising that I could eat very little of the meat, and dared not eat much of the cheese, from fear of indigestion. After a week of paint scraping I was put into the boiler house as stoker's mate, or drudge. My first duty in the morning was to sweep down the tops of the two boilers, and then, descending from that torrid region, to sweep and mop up the boiler house floor; and, finally, to sweep the roadway as far as the dust bins, which I had to keep tidy at all times. In the course of the day, while incidentally shining brasses and carrying off and drenching hot ashes and clinkers whenever the fireman cleaned out his fires, I had to keep him constantly supplied with a large barrow of coals, to the amount of from one and a half to two tons a day, which I had to break up to the requisite size in the coal hole before wheeling away. Twice a day I had to clean the engine which runs the various machinery of the washhouse; and I was liable at any moment to be called away by the engineer to light the smithy forge, to clean out choked gullies, drains or pipes, turn the grindstone, or cut and drill holes in ironwork—in short, to help him in any of the multifarious duties of his office. By the close of the day I could have welcomed what was unattainable in that place, a quiet corner for undisturbed rest.

"Now, to a man who has been inured to manual labor, perhaps such work would not seem hard, if he was adequately fed, or at least could readily assimilate the workhouse fare. But if a man has never done such work, or is in delicate health, or suffering from some sharp stroke of misfortune, his case is indeed pitiable. No matter how he suffers in mind or body, or his bones ache with rheumatic twinges unavoidable in such a factory of draughts as the many cornered, many corridored workhouse is, he has no time to attend to his sensations, but, while his strength and spirits are ebbing surely away, is carried on dumbly through the weary routine of his life like a veritable beast of burden. But a whole volume of description would not explain to the outsider the peculiar loathing that is entertained by the initiated for 'The House.' Analyze the feeling, and you will find most of it unreasonable; but it is there, nevertheless, deep seated and inextinguishable."

WOMEN WHO DRINK.

England Seems to Have More than Enough of Them.

"But in order rightly to understand," says Lady Henry Somerset, writing about London in "The North American Review," "we must leave for a moment the fields and flowers and the birds and beasts, and go into the dingy city, and pass the courts and the alleys and the pawnbrokers' shops and the old clothes shops; we must go down into the kitchens where the rats share the damp darkness with the inhabitants, and then walk out again into the dusty street; and then we shall begin to understand what is the centre of attraction to the dwellers in the narrow court and gloomy slum. At the corner of the street there is a public house, and, if we watch the swinging door for a moment, we shall be able to realize why it is that in England there are more drunken women than in any other nation, and how it is that the brewers have made larger fortunes than can be amassed at any other trade.

"Between the hours of 1 and 3 o'clock you will see in this squalid district from one hundred to two hundred women enter the drink shop with little babies in their arms, and as those women crowd into that public house and stand to drink, they will often give the baby a share of the liquor, and the little mouth will greedily suck the spoon or the glass that has in it the taste of gin. Between those hours, too, you will see a hundred and fifty or two hundred girls, with tattered clothes, torn pinafores, some almost shoeless, all ragged, all dirty, all dishevelled, entering with jugs to carry away the drink to their miserable homes. As many boys under the age of fourteen or fifteen will be there, too, making, perhaps, a total in one afternoon of five hundred children. I remember on one occasion standing in front of just such a public house (and if you look down the street, you will see that there are twenty more), with an American, and when she saw the women going into the public house, some of them respectably clad, she said: 'Are they going to hold a crusade meeting there, as they did in America twenty years ago?'

"It seemed to her inconceivable that women were going there to drink; but to us it has become a commonplace, and those who know anything of the social life of the people in England have long realized that children are drunk for the first time in their mothers' arms, or cursed with the appetite before they are born. In their earliest association, the public house stands as the most prominent factor in their existence, and has stored their minds with the impressions of everything that is vile and bad.

"But there is another picture of our social life of which I have to speak before I go back again to the country farm, and, in order to bring this before the minds of those who are interested in social problems, I must ask them to go inside a large London drink den. There you will find that the finest houses are supplied with a great number of entrances, six, eight, or ten, and each of these entrances leads into a separate small bar, and, if you are inclined to sit for a moment and ask for a glass of lemonade, you can watch those who pass in and out.

"A young girl, well dressed and of respectable parentage, will come in, accompanied by the young man to whom she is engaged, and they will call for a glass of spirits or beer, and sit down to drink as a matter of course. A middle aged woman, who has known better days, draws her mantle about her, and looks round to see if any one has noticed that she has crossed that threshold; her face is pale and drawn, and she has anxious lines round her eyes. Employment is hard to get, and she is going to try to forget how difficult it is to live, as she carries in her thin, trembling hand a glass of neat spirit to the further corner of the bar. Then there are a middle aged man and his wife, who ask for beer, a woman with a baby and a young husband; the baby cries, and the mother dips her finger in her glass and rubs its lips. A little noise in another bar tells us that there a different class has assembled, and there we see the ragged denizens of the slums; but every class is represented, and among them women are prominently to be found.

"What wonder, then, that as we read the annals of our English police courts, we realize that drunkenness has not only invaded the homes of the poorest of the people, but also that drinking is alarmingly on the increase among women of the wealthy and the leisured classes; that not only are destitute and degraded women committed to our prisons, who are unable to pay the fine, but that women in apparently respectable positions are continually convicted of drunkenness, until it may be truly said that scarcely a family exists but has some record of this hideous disease."

HUGE BATTLESHIPS.

Comparisons Between New American and British Vessels.

It is only a few years ago that the shipping world concluded that the limit of size and speed of transatlantic passenger steamships had been reached with a displacement of five or six thousand tons and a speed of from fourten to sixteen knots. But enormous strides have occurred since then, and a steamship of ten thousand tons and a twenty knot speed is now common. But the naval architect, the constructor and the engineer has not confined his attention to the mercantile marine, as is evidenced by the swift cruisers and the leviathan battleships. Only on Tuesday last The Tribune gave a picture and the principal dimensions of the battleship Connecticut, now under construction at the New-York navy yard, which is to be of sixteen thousand tons displacement and to have a speed of eighteen knots.

It was also stated that the Connecticut and her sister ship, the Louisiana, "are considered to be two of the most powerful battleships afloat." In making this statement, it was not intended to say that they are to be of greater displacement and speed than any other, for this would be untrue, and as proof of this a brief comparison with the new British battleship, King Edward VII, launched at Devonport on July 23, may be made. The latter is the largest ship in the British navy. She is reported to have cost $7,500,000, including armor and armament, while the limit of the cost of the Connecticut, exclusive of armor and armament, is $4,210,000. The contract price for the Louisiana, under construction at Newport News, is less than the amount for the Connecticut. But, with the cost of armor and armament added, neither will cost what the British ship will. The King Edward VII is probably the highest type of a British battleship, as the Connecticut and Louisiana will be of the American navy. The following are the dimensions, etc., of each:

Connecticut—Length, 450 feet; breadth of beam, 76 ft. 10 in.; draught of water, 24¾ feet; displacement, 16,000 tons; horsepower (indicated), 16,500; speed, 18 knots; coal capacity, 900 tons. Armament: Four 12-inch breechloading rifles, eight 8-inch breechloading rifles, twelve 7-inch breechloading rifles, twelve 3-pounder rapid firing guns, twelve 3-pounder semi-automatic, six 1-pounder automatic, two 1-pounder semi-automatic, two 3-inch field guns, two machine guns and six automatic, calibre .30.

King Edward VII—Length, 425 feet; breadth of beam, 78 feet; draught of water, 26¾ feet; displacement, 16,350 tons; horsepower (indicated), 18,000; speed, 18½ knots; coal capacity, 950 tons. Armament: Four 12-inch breechloading rifles, four 9.2-inch breechloading rifles, ten 6-inch breechloading rifles and twenty-four guns of smaller calibre.

AN AID TO TELEGRAPHY.

The wear and tear on the telegraph operator's nerves are said to be particularly severe on account of the great number of signals which he must send in the course of a few hours' work, and also because of the great rapidity with which he must work. As is well known, the various signals are made by a combination of the dot and dash, the letter "p," for instance, requiring five dots, and the letter "b" a dash and three dots. With the telegraph key now in use, in sending the five dots indicating a "p" the operator must depress and release his key five times, and thus it is estimated that in the course of sending messages in the ordinary pursuit of his work the operator is compelled to make 180,000 depressions and the same number of relaxations in the course of eight hours' work, during which time he would send about fifteen thousand words. It will readily be seen that the work is exceedingly trying on the nerves.

Much of this labor has been avoided by the use of a new invention, recently patented by Horace G. Martin. It is about the size of the Morse relay and is known as the "autoplex." It has one lever, which works from the side, there being a contact point at each side. As long as the lever is held at one side the automatic mechanism is set in motion and the dots are sent out one after the other. Upon shifting the lever to the other side, the dash mechanism is set in motion, and the dashes will be repeated indefinitely if desired. With this device a word which requires thirty-two movements is sent with twelve, and it is estimated that the operator's work is reduced by two-thirds.—(Scientific American.

KEEPING UP SUPPLY OF CENTS AND NICKELS.

MANY WORN OUT ANNUALLY, SO THEY HAVE TO BE REDEEMED—SOME CURIOSITIES IN COINS.

Cents and nickels wear out rapidly because they are passing constantly from hand to hand, and the immense numbers of them that pour into the Treasury at Washington are carefully sorted for the purpose of throwing out those which are too much damaged and worn to remain in further circulation. These coins arrive in bags from banks all over the country for redemption in more convenient money, and the first thing that is done is to count them. This process is performed by nimble fingered persons, mostly women, who accomplish the task with a rapidity little short of marvellous, and this is the way they do it:

The counter takes a newly received bag of cents, pours a quantity—a double handful, say—upon the table in front of her, and with two or three quick motions of her hands spreads them out so that they lie flat, no one of them upon another. With deft fingers the manipulator throws them, two at a time, from the table into her left hand, which she holds beneath the edge of the table. Her eye scans every piece, and if there is a counterfeit in the lot it seldom escapes her trained touch and sharp eye. Usually the counterfeit betrays itself by a difference in color, but if not thus detected its ring as it drops into the palm with the other coins discovers it.

When a counterfeit is found the counter with a big pair of shears cuts the bogus coin in two halves, laying the pieces aside in a little box which is reserved for this purpose. Not a day passes that a fairly large number of bad cents and nickels do not turn up at the Treasury, most of them coming from New-York and Philadelphia, where the business of making such small coins occupies the attention of many Italians and Polish Jews. The profits of the copper counterfeiting industry are small, but the pieces, being of such small value, pass without much trouble. Eventually the counterfeits, cut in halves, are transmitted to the Secret Service Division of the Treasury, under whose direction they are destroyed and melted in a furnace, to be finally sold as old metal.

The pieces that are too much worn to be of further use are thrown into a separate receptacle, and every few weeks a large consignment of them is sent to Philadelphia, where they are melted for recoinage. Quite frequently foreign coppers turn up, and they likewise go to the melting pot. Some of these foreign copper coins are of about the same size as our cents, and will pass for the latter pretty well for lack of scrutiny—a fact which on one occasion induced an ingenious person to import several bushels of Austrian kreutzers for circulation in this country. They circulate fairly well, but the author of the scheme soon found himself behind prison bars.

Ninety-five per cent of the cents and nickels are in sufficiently good condition to go out again into circulation, and for this purpose they are put up in paper envelopes and cloth bags. Bags that contain $50 in cents or more are sewed up, tied and tagged, with a wax seal over the string for additional security, the initials of the counter and a note of weight of the sack giving a guarantee of correctness. Some of the money is packed in paper rouleaux, called cartridges, one woman being kept busy all the time rolling on a round stick for this purpose little sheets of paper, each of which bears on its surface in printed letters the amount represented by the contents. If a bank cashier anywhere hands one a cartridge marked: "Five dols.; dimes; Treasury, U. S.," one may know that it is not necessary to verify the contents.

The counters are so expert that it is considered no great feat for one of them to count and do up in bags or cartridges 50,000 pieces in six hours, incidentally rejecting every counterfeit, foreign or mutilated coin.

When a twenty-cent piece turns up it goes to the melting pot, because the United States is no longer minting or circulating that kind of money; and the same applies to the nickel with the big "V," which was found dangerous, because when gilded it could be passed for a $5 gold piece. Old fashioned copper cents are used for minting new bronze cents, with the addition of some tin and zinc to make the necessary alloy, and the same thing is done with the oldtime copper half cent.

Cents are subject to more accidents than any other coins. Being of small value, little care is taken of them, and that is why the Treasury has to go on turning out new ones at the rate of 50,000,000 a year. Slot machines have greatly increased the demand for these small coins, and so have the penny newspapers and the odd prices made popular in drygoods shops. At the Treasury it is said that the cent is a barometer of business conditions. A heavy storm or a sudden coming of cold weather—anything, in short, that keeps the penny spending part of the population at home—is accurately reflected in the falling off of the cents coming to the sub-treasuries for exchange and redemption. During periods of dulness pennies accumulate at sub-treasuries, but when trade revives they begin to circulate rapidly again.

The stream of coppers flows out continually from the Philadelphia Mint, where they are made, but their history is like that of many rivers in the Western deserts, which are finally lost in the sands. Anybody who wants cents may get them by sending a check for the amount desired to the superintendent of the mint, who will ship the coin at the expense of the government.

Up to date the United States has coined 1,675,247,568 cents, 440,000,000 nickels, 429,531,384 dimes, 300,000,000 quarters, 320,000,000 half-dollars and 589,967,632 dollars.

The silver coins which are sent to the Treasury are treated in exactly the same way as are the nickels and cents. All wornout pieces are melted for recoinage, and on every $1,000 thus reminted the government loses nearly $90. The "life" of a dime is only four or five years, because it changes hands ten times while a half dollar is moved once from one person's pocket into the till of another. Take ten silver dimes as one happens to get them in change, pile them up with an equal number of brand new dimes alongside of them in another stack, and one will find that the pile of the old ones is hardly more than two-thirds the height of the new pile—so much do the pieces lose in thickness after a short time.

Many years ago the government issued 4,500,000 bronze two-cent pieces, and of these over 2,750,000 are still outstanding. But nearly all of them, it is thought, are lost, inasmuch as it is seldom that one turns up for redemption. The same is true of the nickel three-cent pieces, of which nearly 2,000,000 are unaccounted for. Somewhere in the world are 119,000,000 big copper cents, but it would be hard to find any of them, barring the few in the hands of the collectors. What has become of them is a mystery, and the same may be said of the old half cents, corresponding in value to the English farthings. Of these half cents 800,000 were minted, and none have been returned for recoinage or are held by the Treasury. Save for a few in the possession of curio hunters, they seem to have vanished from the earth.

There is another coin, of which the government in 1804 made 20,000 pieces, but of which, as has been ascertained, not even one is known to be in circulation. That coin is the American silver dollar of the mintage of 1804. Two of these most precious of all American coins are in well known collections and are valued at $2,000 each. Speaking of these coins a well known numismatist said:

"It has been determined to the satisfaction of every numismatist that these two dollars were not coined until 1828, although they were struck from the original 1804 die. They were secretly made—although such a procedure is a penal offence—for some one high in influence and authority, who desired them for certain coin collectors. It has never been positively ascertained how the surreptitious work was accomplished, but there is no doubt that it was done.

"Why the dollar of 1804 was never seen in circulation after leaving the mint is one of the unsolved government mysteries.

"A still greater mystery surrounds the half dollar of 1804. Of that coin nearly 160,000 were struck. Not one was ever discovered in circulation. The quarter dollars of 1804 are numerous enough—so plentiful, in fact, that a fair specimen can be bought for $2, and their coinage amounted to 7,000 pieces.

"A curious thing has been discovered regarding the half dollar of 1805, which is not a rare coin, except in the case of those possessing the rare curiosity I speak of, which increases the value tenfold. This is that the figure '5' in 1805 has been struck over a figure '4,' showing that the coin was really one of the undiscovered minting of 1804.

"What became of the large issue of 1804 half dollars? No one knows or ever will know, but it is evident that all of them were not issued from the mint, and this belief that there was some reason for not desiring the coin to circulate is strengthened by the mint obliterating the date on what was left by making 1805 half dollars of them.

"There were no silver dollars issued from the mint in 1805, yet 321 were coined, and are in the hands of collectors to-day, just as they came from the die. No dollars were coined by the government after that until 1836."

THE "SPENT MAN."

"Spent man." There is aching pathos in that phrase. How did sociology ever manage to wander so far from arid intellect and come so near to damp emotion?

"Spent man" is the classification they employ at the municipal lodging house for the man whose vital spark has sunk so low that there is little hope of its ever being revived. This does not mean that the man will die. He may live many years. But he will live as the ship lives that, with no coal and no steam, drifts to meet its last storm.

What makes "spent men"? "The chief assigned cause," says Mr. Robins, superintendent of the municipal lodging house, "is child labor."

Read two of the entries in the lodging house record:

—— ——, twenty-one years old. Began work when thirteen for the Queen City Cotton Company; worked steadily for five years. Seemed discouraged. Low vitality. Worked as common laborer two days. Gave up. Passed on.

—— ——, twenty-two years old, Pennsylvania. Began work at nine, dog in glass works; steady four years; gave out; restaurant work three years; tramping since; power gone; passed on.

There are many more records like these. They confirm what Jane Addams said long ago about the connection between a certain kind of child labor and a certain kind of vagrancy. Exhaust the child. You may have to feed the adult. Exploit the boy laborer. The man tramp may explode upon.

"Be sure your sins will find you out" is an admonition which includes social sins as well as personal ones.—(Chicago Tribune.

THE X RAY PROBLEM.

Are X rays injurious to living tissues? Does the etheric current, in passing unchecked through flesh and blood, plant germs of decay in its course? A story is current that these rays have endangered Inventor Edison's eyesight and cost one of his workmen an arm. In several instances recently reported skin grafting has been resorted to as a desperate remedy for X ray baking and burning.

Röntgen's discovery has been welcomed as an invaluable aid to pathological science, and honors and rewards have been showered thick upon him. He has practically created a new world of scientific research and experiment. The tremendous impulse which he gave to independent inquiry has been followed and answered by amazing revelations of nature's secrets. Marvels dreamed of by ancient alchemists have been overshadowed and outdone by audacious modern experimenters, working on new and strange lines. Men of science are eager, expectant, radical. Disclosures that seem to assail the foundations of modern physical science—the recent revelation of the properties of radium, for example—elicit neither surprise nor dismay. There is a hectic fever of experiment in every quarter, with a strong accompanying disposition to follow after strange gods.—(Philadelphia North American.