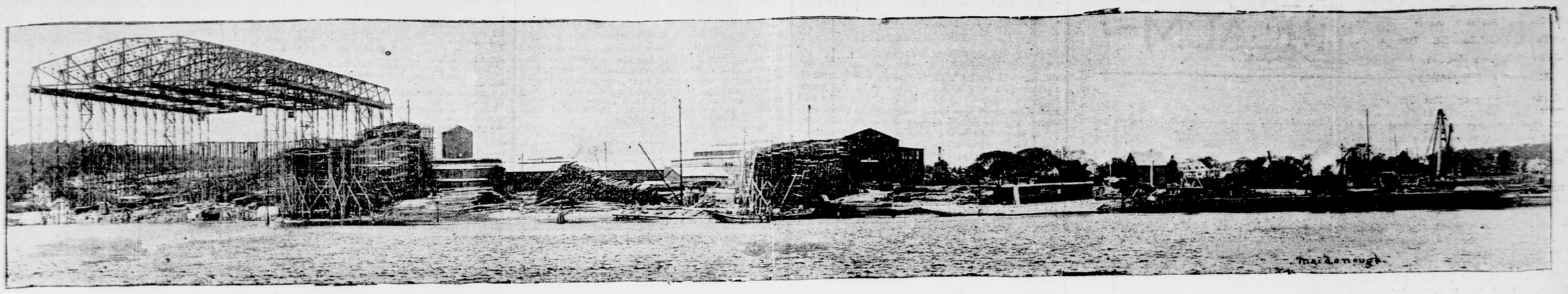
AT THE FORE RIVER SHIP AND ENGINE COMPANY'S YARD SEVERAL WARSHIPS ARE IN COURSE OF CONSTRUCTION.



ON THE FORE RIVER WATER FRONT.

The vessels from left to right are the New-Jersey, the Rhode Island, the Lawson, the Des Moines, the Lawrence and the McDonough.

A GREAT SHIPYARD.

PLANT OF THE FORE RIVER SHIP AND ENGINE CO.

ITS MODEL ARRANGEMENT AND THE MACHINERY IT HAS—THE FIRST LAUNCHING.

Boston, Aug. 16 (Special.)—America has been proud of her sailing ships ever since the colonists founded a merchant marine with trim craft which they hewed out of the mighty forests along the New-England shore. With the development of steam and the spirit of hurry which lately has come over everybody and entered into almost everything, they seem doomed to be driven from the seas and placed in the obsolete class, along with the horsecar, the spinning wheel and the tallow dip, things at which to wonder when encountered. The sailing ship, with towering masts, wide sheets of flowing canvas and a tangle of rigging, was picturesque. She was beautiful to a degree which the trimmest yacht cannot approach. Men of sentiment sorrowed when they thought how much the republic owed to this wind driven creature, now, apparently, in its last days.

While most of the vessel owners of the country pushed their money into prosaic steam craft, which could be counted on for just so many knots an hour regardless of weather, a few have realized that the sailing craft has not outlived her usefulness. It is due to these few that there has been a new activity in the building of sailing ships. For a full generation Massachusetts, formerly the great shipbuilding commonwealth of the country, has been comparatively idle in almost every branch of the industry. With the new lease of life to the sailing ship the State has again taken up on a truly modern scale the trade which was responsible for so many of her fortunes.

A few weeks ago on one of the arms of Boston Harbor the largest sailing vessel in the world was launched. She slid from the ways with her seven masts standing and without a quiver from her four hundred feet of steel hull. She is the Thomas W. Lawson, and she can carry 8,100 tons of cargo, which will give her a displacement of 10,000 tons. She is typical of the modern sailing vessel and threatens to revolutionize the ocean carrying trade.

But enough of the sailing ship and her regeneration. For the purposes of this article she must serve as an introduction to one of the most interesting of modern shipyards, that of the Fore River Ship and Engine Company, at Quincy, Mass., the yard where the Lawson was built. Eighteen years ago the yard was founded in a small way at the head of navigation on Weymouth Fore River, but the present plant is a development of the last two years. The yard encloses ninety acres of salt meadows, and fronts on a fine launching beach of hard pan. There is a direct outlet to the ocean through Hull Gut.

Before the shipyard came the land was used for farming, and the newness of the plant is shown by several gardens which are flourishing in parts on which buildings have not been erected. In the small towns surrounding and in the pleasant country districts the one thousand four hundred workmen now employed by the company have found ideal homes. Most of them are Americans and a happier colony does not exist than these shipbuilders. After the launching of the Lawson a bearded old man in greasy blue jumpers, who had been hammering on the wedges which started the big schooner sliding toward the water, approached The Tribune correspondent.

"That was a bully fine launching, wasn't it?" he cried, his mouth broadening into a lasting smile and his eyes dancing. "I've been launching ships for thirty years now, but I never have seen one which went off like that."

"You men seem very happy over it," the correspondent remarked.

"Of course we're happy," he responded quickly. "You see, this is the first big launching from the new yard. If anything went wrong it would mean bad luck for the yard. There would be a series of accidents and all sorts of trouble. It's as bad working in a hoodooed shipyard as it is to sail on a hoodooed ship."

He told how he had moved his family from Philadelphia, where he had been employed by the Cramps. "Sorry to leave the Quaker town? Not much!" he said. "This is a bully place for the workmen. For the first time in my life I am able to live in the country. I've got a garden and there is a big yard for the kids. You should see those kids! Lord, how they play, and healthy—why, they're getting so healthy that the house will hardly hold them."

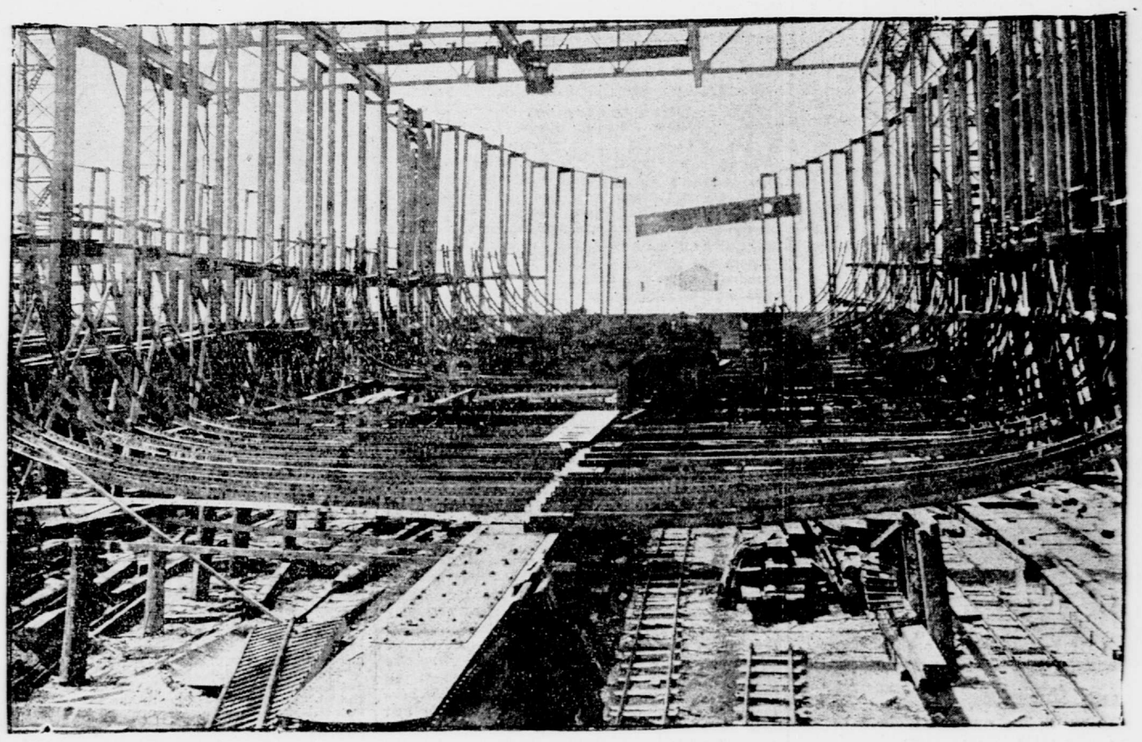
This spirit of content with their surroundings is one of the most striking features of the men of the Fore River Yard. Besides, they are proud of the plant, with its improved electrical appliances and the clocklike routine with which the work goes on. In laying out the works it was planned to have the raw material enter at one end of the yard, pass through the successive shops and came out at the building beach or outfitting basin without any doubling on the trail or the slightest unnecessary handling. With this idea in view, the office building, which was floated down the river from the old works, was placed furthest away from the water. Next to it, but far enough away not to be troublesome, are the forge and annealing shops which receive the raw material.

Then come the machine shops, which are connected with the outfitting basin by a railroad; the mould loft, the pattern shop, the plate yard for the storage of structural steel, the rolling mill, and, on the water front, a monster ship house, which just now shelters two battleships in course of construction, and the outfitting basin. Every department is placed just where it will best prevent confusion and save time and power in handling. The whole yard is made a concrete thing by a system of electric railroads and traveling cranes which can handle the heaviest pieces used in the construction of a steel ship.

In every department there is something at which to wonder. It may be a bit of newly patented machinery which does the work of a dozen men in half the time, it may be the individual motors with which all machines are equipped, doing away with belting and saving an enormous amount of power, or perhaps it is a group of skilled workmen at some particularly interesting task.

A tour of the yard begins with the noisy forge room, with its eight steam hammers. The largest is one of the three big hammers in the world—weighing twenty tons and having a power of 250 tons. It is said to be the only one in the shipyard which is large enough to do all the work required on a battleship. It can flatten out a chunk of steel or crack a hickory nut, so perfectly can its force be controlled. The waste heat from seven furnaces is utilized by the boilers which supply steam power to the hammers.

A forging that is beaten into shape in the forge



A DAY'S WORK AT FORE RIVER.

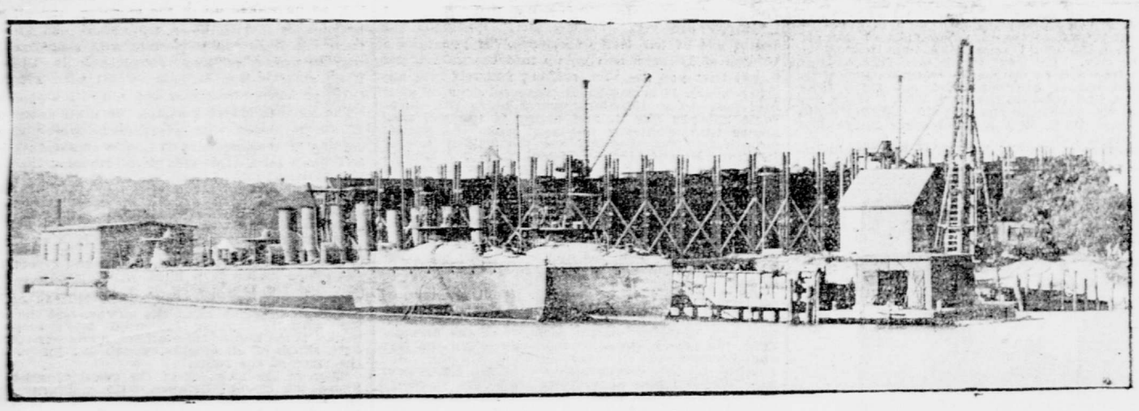
The frames and keelplates of the battleship Rhode Island were set and bolted in eight hours.

the back end of the ship tool house is the bending table, where frames are given their proper shapes on a great iron table perforated with holes.

The most striking feature of the waterfront of the Fore River yard is the monster ship house which just now shelters the frames of the battleships New-Jersey and Rhode Island. It is 150 feet high, 490 feet long, and has a width of 325 feet. If it were inclosed, the end section would measure 40,500 square feet. The length is shortly to be increased to 800 feet, which will give a ground area of six acres. It is of skeleton steel construction and carries powerful cranes a hundred feet above the ground. These steam burden bearers pick the material as it comes from the tool house and carry it to any part of either ship faster than a man could walk.

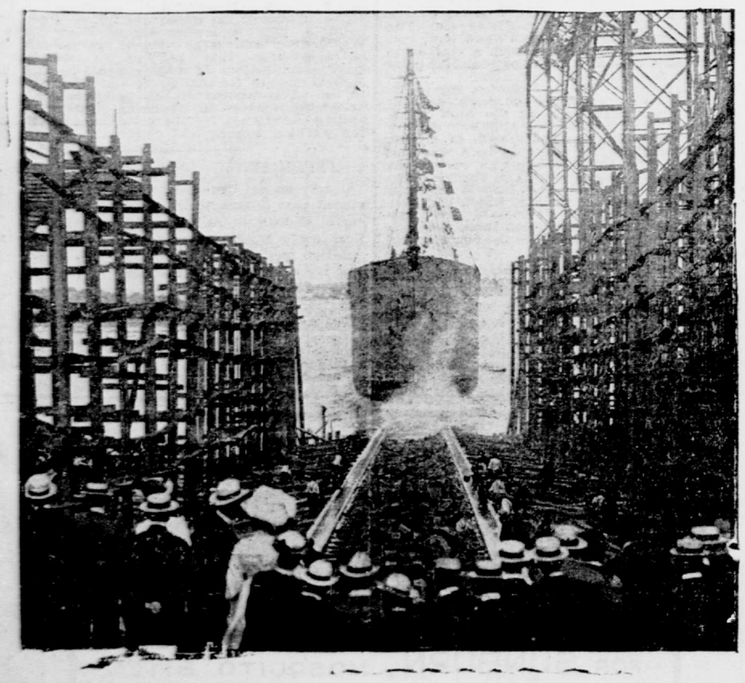
When the material passing through the whole division has become a finished ship, and the finished ship is launched, it is towed to the outfitting basin. Here there is a folding jib gantry crane which moves on tracks along the edge of the wharf. Boilers, heavy plates, engines and masts can be put in shape without moving the vessel, a great advantage over the shears and other devices used in most shipyards, which are fixed in one place and require the moving of the ship.

The vessel which will follow the Lawson from the Fore River ways is the protected cruiser Des Moines, which will be launched shortly. She is designed for service in Southern waters, and with a length of 265 feet will be particularly efficient where mobility is a first requisite.



TORPEDO BOAT DESTROYERS LAWRENCE AND M'DONOUGH.

The nearly completed cruiser Des Moines in background.



THE LAUNCHING OF THE SEVEN MASTED SCHOONER THOMAS W. LAWSON.

CAUGHT AT THEIR TRICKS.

TWO PARTIES OF ANGLERS HAD BEEN PLAYING THE SAME GAME.

Rochester, N. Y., Aug. 16 (Special).—The town is laughing at the ludicrous outcome of a fishing trip taken by a dozen well known young society men to the Manitou waters the other day. The bass and pickerel were running well, and large catches had been made. These twelve sportsmen resolved to take a try at luck. They divided up into two parties, six in a boat, and each side put up a bet of $10 that it would return to the hotel at a given hour with the larger catch. There was a bit of a gale on the lake, and the fish were striking poorly, when one boatload saw an aged angler pulling for shore near by them. He was hailed, and held up a fine catch of pickerel, weighing, altogether, with several bass and perch, about forty-five pounds. There were several big fellows in the lot, and the eager occupants of Boat No. 1 hit upon a brilliant expedient. Dickering followed, and finally the veteran fisherman exchanged his catch for six one-dollar bills, each member of the party putting in the same sum.

"Wait," they whispered exultantly when the old man had pulled away. "We'll make those jack spots in the other boat feel like thirty Canadian pennies."

The aged fisherman, knowing the waters thoroughly, instead of departing for home, sought a sheltered cove and caught five more pickerel, which weighed about twenty-five pounds. By chance he met the party in boat No. 2, and, fate hovering around with suppressed laughter, they had a flash of genius like that which animated boat No. 1, and the old fisherman sold the catch for $2 50. Then he went back and fished for an hour longer and caught a nine pound pike.

"Wait," said boat No. 2; "wait, and we'll make the other gang feel like a counterfeit note in the fist of a Treasury expert."

The two boatloads met on the hotel plazza, and boat No. 1 crowed loudly and exuberantly with joy. They had forty-five pounds of fish. Boat No. 2 was chagrined; it had only twenty-five pounds. Just then the aged angler appeared around the corner dragging a nine pound pike. He was a just and square man, and he went up to the spokesman of boat No. 2.

"Here," he said, "the string I sold to you fellers wa'n't quite so good ez that I sold to the other fellers, so I'll throw to you this here nine pound yaller pike fer half a dollar."

And then there was a tableau, and then there were several bottles opened in quick and uninterrupted succession. As for the the aged angler, he is wondering yet "what in thunder made them durn dudes all holler ter wunst fer?"

TO THE CARDINAL FLOWER.

Tell me, dainty Cardinal, bending o'er the brook,
Does it mirror back your face? Is that why you look?
Or is it because you're shy? Will not meet a stranger's eye?
Dainty flower, please reply, are you vain or only shy?
Do not be afraid to say. If you prinked the livelong day,
Still you would be dear to me, for I love you loyally.

VACANT LOT FARMING.

SUCCESS OF THE "POTATO PATCH" PLAN IN PHILADELPHIA.

When the early morning trains on the Reading Railroad pass a certain well kept farm on the outskirts of Philadelphia, the men and women who are coming reluctantly from their own farms and suburban places to city offices crane their necks in eager interest. They comment on the condition of the potatoes and the growth of the corn. A stranger looking out of the car window sees a piece of land divided off like an old fashioned patchwork quilt—here a square of potatoes, there a strip of onions, and between them a patch of corn. The laborers are even more unusual than the manner in which the garden is laid out. A stout old German woman, resting in her wheelbarrow, pushes back her calico sunbonnet to survey the passing train. An Italian toils near her, wielding a hoe in place of the usual pickaxe, and a whole family of Irish children have established themselves under a neighboring tree.

If the stranger makes inquiries of his neighbor in the car, he will be told that this is one of the farms of the Philadelphia Vacant Lots Cultivation Association. If he questions further he will probably find his informant well acquainted with the work, for the average Philadelphian feels a personal interest in an experiment that has succeeded so well.

The work has indeed passed the experimental stage. The association was organized in 1897, during a period of industrial depression, to aid men who could obtain no work. Similar associations were started in a number of Eastern cities, following the plan of Governor Hazen S. Pingree, who had established gardens in Detroit in 1894, while he was Mayor of that city. Some of these were intended to give only temporary aid and were discontinued when industrial conditions became better. Others were failures from the beginning. A few, among which is the Philadelphia association, lived and strengthened. Each year this association brings more land under cultivation and assists a greater number of families toward self-support.

The first year twenty-seven acres of land were cultivated, and the ninety-seven families who had gardens raised nearly $6,000 worth of vegetables. In 1901, the fifth season, 632 gardens, covering 150 acres, were worked by 600 families. The association expended that year something over $4,000 and the value of the crops, calculated from carefully kept records of each garden, was $30,000. This means that for each dollar expended over $7 worth of vegetables was raised.

Plots of land in and about the city, varying in size from one thirty-second of an acre to eighteen acres, are loaned by the owners to the association. These tracts are divided among the people who apply for them. The unit of division is one-quarter acre, but more or less may be given, according to the needs of the applicant and his ability to do the work. No garden is larger than one acre. The land is ploughed, harrowed and partially fertilized by the association. Seeds and young plants are also furnished, but the worker must provide his own tools.

Superintendent Powell and his assistants are always at hand to give aid and advice to the amateur farmer, who is sometimes handicapped by his inexperience. One man, determined not to let undue thrift stand in the way of success, scattered paris green with so lavish a hand that his potato vines died in company with the bugs. In despair, the gardener of a year sought Superintendent Powell. As a result of their conference, sturdy green corn leaves pushed their way up between pathetic rows of blackened potato vines a few weeks later, and a new crop was started on its way.

The money to pay running expenses is contributed by Philadelphia men who are interested in philanthropic enterprises. It has been suggested that by charging a slight rent the work could be made self-supporting. This does not seem wise, however. The profit of the individual farmer is so slight that he can ill stand its reduction, and most of the applicants for land are so poor and have so little confidence in themselves that they refuse the gardens rather than take upon themselves the slightest financial responsibility. The assistance given is free from the disadvantages which attend much charitable work, for it is useless to the recipient unless he adds thereto his own labor. It is an assistance that strengthens rather than weakens.

There are but two conditions attached to the taking up of a garden: First, the garden must be cared for, and, second, no one may trespass on another's land. A careful oversight is kept over each garden and a timely warning given when the weeds are getting thick. Land not well cultivated is taken away from the negligent worker and turned over to one whose garden stands sponsor for his industry. In some cities it was attempted to have the men in the fields at a fixed hour and to require a certain amount of work each day, but this was found impracticable. If left to themselves to choose the time and manner of working, the old men can work a little, rest a little, and work a little more, with an occasional pause for gossip with an old crony who is smoking a pipe in the shade; the women are able to get in occasional hours of fieldwork between the dishwashings, and the workingmen can come out after supper.

It is for such people as these that the association exists. However prosperous industrial conditions may be, there is of necessity a large number who can obtain only uncertain employment at best. There are others who can find no work. These are the incompetent—the old, the sick, the unskilled. They are pushed steadily toward the workhouse, if not the prison. It is the aim of the association to make these men and women self-supporting. In some cases the garden is a needed addition to a limited income; in other cases it stands between a family and starvation.

An old man over ninety potters about his little patch in the fresh air and sunshine. At first glance it seems as if he could do little work, yet every evening he carries a basket of fresh vegetables home to his widowed daughter and her three children, with whom he lives. He is counted no burden, but a help, in that household. Near by a boy of fourteen has his garden for the third year. His mother earns enough by sewing to pay the rent, and this youngster feeds the family. He often appears with his two little sisters at 4 o'clock in the morning. At 4 in the afternoon they are back at work, and sometimes stay until 9 at night. It is hard work for children, but better for them than loitering in the streets that are their playground.

The majority of the farmers are Americans. The Irish come next in number. There are a number of Italians, some Poles, a few Swedes and three or four Russian Jews.

Most of the farmers raise general crops—potatoes, corn, cabbages, peas, beans, onions, lettuce, radishes. Others make a specialty of one vegetable. A man who has a place to store his produce can raise enough potatoes to supply his family for the entire year. A few sell their produce. One man plants his entire garden to beans. Each morning he fills his pushcart and starts out on his route. By a succession of crops he can supply his regular customers for the entire season. One week he made $14.

An interesting crop is that of an old Englishman. In the spring he picks up from the dumps near the large hothouses the carnation clippings that have been thrown out. These he roots in pots, and later transplants to his garden. During the summer he keeps the buds picked off, and in the fall sells the plants to conservatories for winter blooming. He receives from $5 to $10 a hundred, according to the condition of the plants. One year this man, seventy-two years old, cleared $150 from his fourth of an acre.

The association tries to get work of a permanent character for the gardeners. A number of them have passed from cultivating vacant lots to renting small truck farms, on which they raise vegetables, poultry and Belgian hares for the city markets. Others have obtained places as farm help, while one or two have rented farms of considerable size.

The direct result accomplished by the society is the utilization of waste land and waste energy—the turning of non-producers into producers. But a crop is grown in these gardens which may not be reckoned in bushels nor calculated in dollars and cents—a crop of health, of physical and moral strength.

"Each year," said Superintendent Powell, "we have saved the city of Philadelphia more than we have spent. We have saved it in the expenses of the police courts and jails."

A man who has a garden for which to care has less time to hang about saloons. He has an object round which his thoughts and plans may centre. An example of this is the case of a colored man who asked for a plot when the land was being apportioned the first year. He was old, partially paralyzed, and very drunk. It is the policy of the association to give land to any one who applies, regardless of his apparent worthiness—whether a man keeps his garden or not depends upon himself. The superintendent explained the conditions and assigned a plot to the man, who made many wordy and incoherent promises. The next day he appeared in a comparatively sober condition, but his right arm was useless, and he worked slowly and awkwardly. The next day he was too drunk to work at all. So it went on, almost constant drunkenness, varied by occasional spasms of industry. Nevertheless he managed to keep the garden. Gradually it became the intoxication which was intermittent, while the habit of working grew upon him, and exercise brought strength to the useless arm. He still has his garden, and each year he finds respectability more delightful.

This twofold crop is being cultivated with varying success throughout the country. The chief difficulty lies in obtaining land. The New-York association was so handicapped in this way that it gave up the work after a few years. The Boston association, too, was unable to continue, because it had to rent land. Often that which might be obtained free is unsuitable. The cost of cultivating small lots widely separated is too great. The character of the soil must be considered. The uncertainty of tenure is a hindrance. In spite of these difficulties the work is carried on with good results in many places. One of the most successful associations is at Columbus, Ohio.

The work is sometimes under the direction of the Bureau of Associated Charities of the city, as in Denver and in Wilmington, Del., sometimes under a separate organization, as in Philadelphia, and sometimes under the municipal government. The ups and downs of the work in Buffalo and Detroit show that, while it may be able to control more land under this last system, its prosperity varies with the city government.

The movement has a direct bearing on the industrial questions of the day. Undoubtedly the success of vacant lot farming is a factor against the present system of taxation. A man argues: "On this little piece of land I can make my work count for something; what could I not do if I had more land and was sure of keeping it from year to year?" It seems to him wrong that large tracts of land should be held idle by speculators. After talking it over with his neighbors, he comes to the conclusion that, should unimproved land be taxed heavily, and improved land lightly, these tracts would be thrown open to him. Though he has never heard the name of Henry George, he is now one of his followers.

Even though "organized" charity looks askance at philanthropy that refuses to spend time and money "investigating" cases and gives equal chances to the "worthy" and "unworthy," and, though the land speculator is in open opposition to the movement, yet hundreds of men and women bear witness to the good which it has already accomplished.

PING PONG HELPS ALONG TENNIS.

MANY OF THE SPECTATORS AT THE INTERNATIONAL CONTESTS PLAYERS OF THE FORMER GAME.

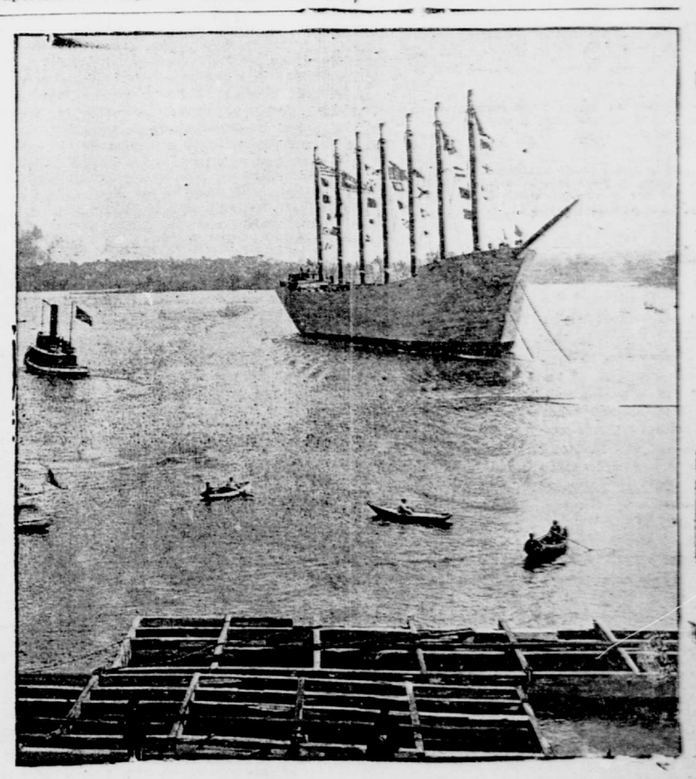
There is no room for doubt that the recent ping pong craze was responsible for the great crowd which descended on the Crescent Athletic Club grounds a few days ago for the international tennis matches. The little girl who lisped, "Oh, my! they's playin' grownup ping pong!" the woman who worried because the players did not wait for the balls to bounce as in ping pong, and about two-thirds of the men on the grounds testified to this. Many persons tried to fit the ping pong rules, which they knew so well, to the tennis matches. There is not a great deal of difference, but the misapplication caused some confusion.

"That ball was off the table!" shouted one man at an exciting point in the doubles. "I say it was off the table!" and every one who heard laughed.

Tennis is scored the same way as is ping pong, and that was a great help. Those in the grandstand and on the lawn never lost track of the score. Their eyes were trained to follow the ball, and the longer, slower tennis strokes proved much easier than the lightninglike movements of the ping pong ball. Opinion differed as to which of these sister games was most fun. Few of the ping pong fiends were converted to tennis, but many new strokes will be attempted from pointers gained at Bay Ridge.

THOMAS A. WATSON.

Founder and president of the Fore River Ship and Engine Building Company.



THE SEVEN MASTED SCHOONER THOMAS W. LAWSON, AS LAUNCHED.