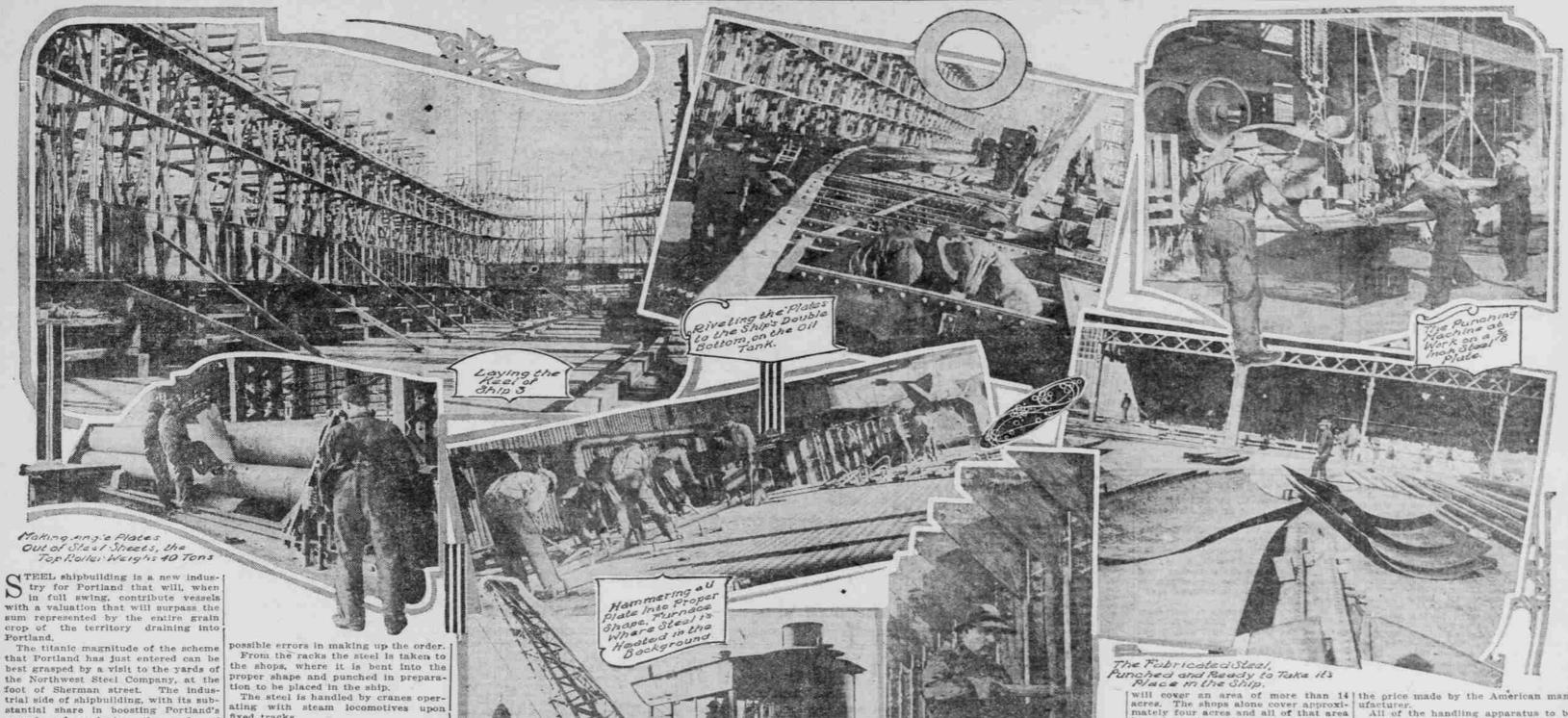
## STEEL SHIPBUILDING HERE PROMISES TO BE VAST INDUSTRY

Each Part Shaped at Northwest Company Plant by Huge Machines That Work With Amazing Accuracy-Project May Grow to Involve \$30,000,000 Annually.



with a valuation that will surpass the sum represented by the entire grain Portland.

trial side of shipbuilding, with its sub-stantial share in boosting Portland's payroll and employing thousands of workmen who otherwise might be idle, is immense and will reward scrutiny. The actual construction of the steel

terested hundreds of spectators and merits explanation. All of the steel used in the construc-

tion of the ships is received at the yards of the Northwest Steel Company rolled. None of the pieces are shaped company shops that cover some four resembles the rollers on a wash ringer, acres of ground.

400 Tons Received Monthly,
The steel comes from all over the
Chited States, from those steel miles
that offer the best price for the particthat accuracy.
When the material is ready for use
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fixed tracks. Girders Bent in Furnace.

Steel girders that need bending are taken to a furnace, where an intense ships, three of which are now under way, with others contemplated, has inare put in the furnace and heated to that temperature that allows workmen with sledges to hammer them into the proper shape,

If the steel needs to be rolled into half or quarter circles it is taken to a or punched. This work is done in the huge rolling machine. This machine The upper roller weighs over 40 tons 4000 Tons Received Monthly.

The steel comes from all over the proper curve with remarkable celerity

will cover an area of more than 14 acres. The shops alone cover approximately four acres and all of that area is under substantial roof.

Pattern Room Vital Unit.

Where the burden of responsibility lies for the correct construction of the ships is in the pattern room where each part of the ship is hid out on the floor and a pattern in wood made of it. The pattern room is just half the length of the ship. It admits of the laying out of practically half of the ship's members at one time. Here skilled engineers and designers are busy with scale and pencil, laying out designs from which the carpenters fashion the patterns. The patterns in their turn are sent to the machines hops and are used by the machinests in bending the angles to the right dimension and placing the rivets in the proper place.

There is a remarkable co-ordination

the price made by the American manufacturer.

All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the ships is local machinery. All of the handling apparatus to be used by the

## CHRISTMAS SPIRIT INVADES WORKING GIRLS' HOMES

C ought to see the bright young faces about the Maude B. Booth Home for Working Girls, at 12 East Seventh street. They aren't just thinking of themselves and about whether or not they will have a merry time during the holidays. They sit about and read evenings and sew and each lassie keeps her own little secret about what she's making for Christmas.

But what is an open secret about the house is the little tota' Christmas tree at the Larrabee Day Nursery, next door, which is every year decorated by the girls of Booth Home, of whom there are usually 40.

Maude B. Booth Home is a cozy. homelike place. Its matron, Mrs. Jennie White, reminds one of the oldfashioned mother, with good advice always ready and kindness and sympathy beaming in her face. She is the girls' confidante in all their undertakings. They go to her and from her they get just the sort of comfort that they need,

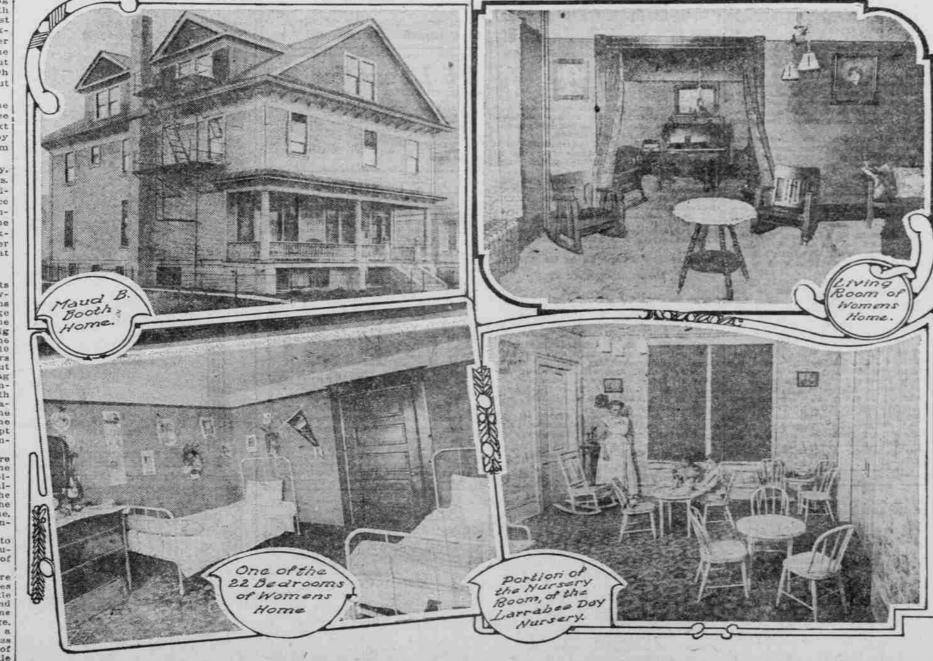
Rooms Are Cheerful.

The rooms are cheerful and pennants and pictures, odds and ends and noventer transform the sleeping rooms into as cheery a place as any college girl enjoys. There's a plane in the big living-room and comfortable big chairs and tables and books. There the girls entertain their guests until 10 o'clock. The dining-room downstairs acted and bright. Everything should be is clean and bright. Everything about the place, from the tubs and froning boards downstairs for the girls' con venience to the big living-room, with its many books, bespeaks the preserva-tion of the ideal home atmosphere. The girls receive room and board at the home for \$3 a week and many are kept without charge until they can find em-

ployment. Many of the girls have been there for a long time and some have gone out of the home working for the Vol-unteers of America. No girls is al-lowed to stay at the home unless she good and refined enough to obey the des. They are not obliged to come. but are welcome to services each morn-

ing and at other times.
Only good foods find their way to the table at Booth Home. Good, nuwritious, home-cooked stuff, and all of

Inside the Larrabee Day Nursery are the rosiest of little cheeks, bright eyes and smiling, red-lipped babies—little ones whose mothers must work and cannot be home to care for them. Some of the children are kept free of charge. others who are able pay a few cents a day for the care of the little ones. Miss May MitChell is the guardian angel of the baby home. She cares for the little ones, smooths the snowy cribs, tells



As proved of great value in securing greater accuracy and in ensuring that the subject matter does not embody solely the practice of one individual but is truly representative. —Editor in preface.

The periodical department offers several magazines of interest to nurse. These are primarily for the trained aurse, but often the Volunteers of America is the prison work. Major Jessie F. Starks is in charge of the prison relief work of both Washington and Oregon. Portland boasts one of the Hope Halls for the reformation of the discharged prisoners. There are only a few in the country. But through the Hope Halls for the reformation of the discharged prisoners. There are only a few in the country. But through the Hope Halls have passed thousands of men to newer, brighter lives and clean moral habilits. They stand as a bulwark against the old associates who try to draw down the returning exile.

The men paroled of great value in securing greater accuracy and in ensuring that the subject matter does not embody solely the practice of one individual but is truly representative. —Editor in preface.

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its. They stand as a bulwark against the old associates who try to draw down the returning exite.

The men paroted from both Walla Walla and Salem come to or through Portland's Hope Hall. Five hundred men belong to the Volunteer Prison League of America from Walla walla and 200 from Salem. Major Starks visits Walla Walla about twice a month. She is assisted by Adjutant Nellie Starks and Staff Captain Ida M. Krug.

Besides these things, the Volunteers of America have also a relief bureau, from which they work for the poor and the unemployed.

Public Library Notes.

The technical room of the Public Library reports the following important new books received:

"American Civil Engineer's Pocket Book," edited by Mansfield Merriman and others, third edition. 106.

"The this third edition is added the new section is on river and barbor works, which contains 96 pages, many of the sections because be pages, many of the sections because be pages, many of the sections because they could be pages have been added to this second edition. The root with the actual work of the such work of the such one half years of collecting and compiling in connection with the actual work of the author on the Daily Trade Record and Wontern Wesar. In all, over 66,000 terms are defined. It contains many answes of fabrices." On the For the such one half years of collecting and compiling in connection with the actual work of the author on the Daily Trade Record and Wontern Wesar. In all, over 66,000 terms are defined. It contains many names of fabrices.

"Dictionary of Textiles," by Louis Harmuth, 1916.

'This volume is the result of seven and one haif years of collecting and compiling in connection with the actual work of the author on the Paily Trade Rocord and women's wear. In all, other 66,000 terms are deflect, it contains many names of fabrics how obsolete and all those in present use in French, English and German textiles; also for the first time the South and Central adherican republics with their markets have been covered. The more important chemicals used in manufacturing and finishing textiles are included. An extensive bibliography adds greatly to the value of the book."

"Waterworks Handbook," compiled by A. D. Flinn, R. S. Weston and C. L. Bogert, 1916.

"The materials for this book have been accumulated by the compilers in the course of their practice in various branches of their practice in various branches of their practice in various branches of their practice, in containing, the user is assumed to have some familiarity with mathematics, hydraulics, the natural schenes and waterworks construction, operator and inspector,"

Another important and new handbook is intended for the waterworks engineer and superintendent the designeer, constructor, operator and inspector,"

Another important and new handbook is "Mechanical Engineers" Handbook," edited by Lionet S. Murks, 1916.

"This is based upon the Hutte and is the work of 60 specialists. Their co-operation." Through Giscler Park." (Rinehart).

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