FOR THE BIGGEST JOB ON EARTH JOIN THE PENNSYLVANIA DIVISION UNITED STATES BOYS WORKING RESERVE AND HELP TO WIN THE WAR

Boys of Pennsylvania! come away themselves by training and study for from the ball fields, turn from vacation good citizenship and productive servfrolics, put aside the pleasant lures of ice. In this way they can show themboyhood and give selves worthy of patriotic fathers who



bugles and the rattle of the drums; you have seen the dust-stained troops and through these things you personally have come to know that the nation is at war.

The stirring military scenes no doubt of your country's martial might. They muscled, splendidly equipped fighting will instruct them in the work. men stand as living barriers between you and your country's foe.

And you, perhaps, have turned back to your sports and games in the confident belief that these chosen legions of a free nation have but to meet the enemy to sweep him from the field. But in that belief there is danger. It is a belief which, if permitted to spread unchecked, would place the armies of America in deadly peril.

All of these inspiring troop movements you have witnessed relate only to one phase of war activity-the military side.

There is another phase of war and It is the more important one because properly directed it backs up the soldier in the field with the entire resources of his country.

Valor Not Enough.

fought for democracy in the past, susheed to serious dotain their patriotic brothers who are ings. Your country fighting for it today, and command the has a grim business affectionate pride of the brave mothers in hand and relies who are silently bearing the burdens largely upon you to at home."

Under the direction of the Pennsyl-You have heard the song of the vania Committee of Public Safety the Reserve is now recruiting an industrial army of 25,000 boys. They will be in highways and byways; you have guided in their activities by John C. cheered with the shouting bystanders Frazee, Federal Director for this State, and a corps of district superintendents.

the organization, and, second, the have impressed you with the greatness preparation of boys for emergency service in all lines of work. The mothave given you a comforting sense of to of the boys who enroll is "I will security through visible assurance that be ready." The Reserve will find usethousands upon thousands of steel- ful work for them and if necessary

Service Badge Given.

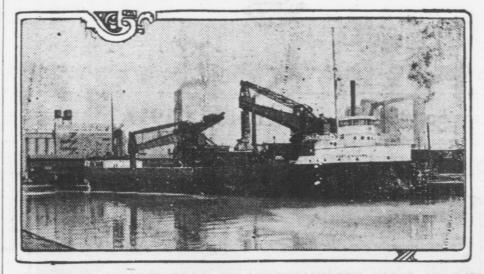
You may enroll by obtaining the consent of your parents or guardians, whether you are now employed or not. Boys who are employed join with the idea of becoming more useful to their country by learning to produce more at their present work. They will not be urged to change their employment, but only to become more proficient at

Boys who are not now at work, but who attend school, may enroll and will be instructed in some line of industry fitted to their abilities. Working hours will be arranged so that their education will not be interfered with. All boys enrolling will receive at once the handsome button of the Pennsylvania Division. By loyal service they may earn the bronze badge of the Reserve

The Iron and Steel Industry

New Methods Reduce the Unit of Cost and Increase the Volume of Production.

By E. A. NIEL.



UNLOADING AN ORE BOAT AT GANSON STREET DOCKS OF THE BUFFALO, ROCHESTER AND PITTSBURGH RAILWAY - BUFFALO.

Many well informed and experienced When conditions in that particular inparts of the country. Iron ore is the basis of the manufacture of iron and steel, and the volume of ore produced in the Minnesota and Michigan ranges steamers at relatively low freight cost during the year 1916 exceeded 64.000,- through Lake Erie ports, coupled with 000 tons, nearly all of which was trans- its proximity to the limestone and coal ported down the great lakes in large deposits. is the basis of the Pittsburgh steamers to the ports of Lake Michigan district's supremacy in the manufacor Lake Erie, where a portion is consumed in the furnaces at the ports and the remainder, which constitutes the The aims of the Reserve are: First, majority, transshipped by rail to interior points. The tonnage during the

sel, all of which contributes to the ecobusiness men hold to the theory that nomical and expeditious handling of the the commercial barometer of the Unit- ore. When we realize that the season of ed States is the iron and steel trade. fake transportation covers only eight months of the year and an average of dustry are good, or "looking upward;" 8,000,000 tons per month was last year's there should be a rising tendency in all record movement of ore, we can form lines of business generally and in all an idea of the magnitude of the business and the necessity for efficient handling, both on the lakes and on the railways.

> The ability to secure iron ore by ture of iron and steel.

Pig iron contains a large percentage of silica and other impurities making it necessary to refine it by melting and eliminating these deleterious substances. By the addition of scrap-iron past year exceeded the previous year and heating in a puddling furnace the

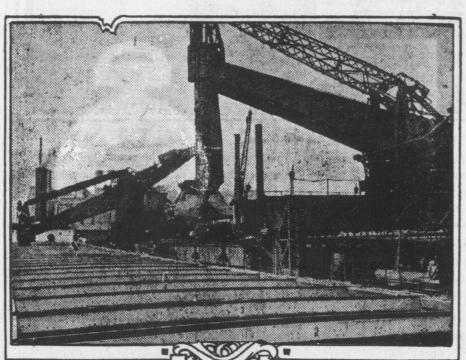






Photo by American Press Association. PREMIER KERENSKY.

EXPERTS OVER NIGHT

Wonderful How Soon War Eligibles I opened a clock that stood in a corner

Pittsburgh, Sept. 4 .--- Members of the appellate draft board have discovered I yanked it out and opened it and found that many young men of military age it full o' bills and gold and silver. have suddenly become expert in cer- I put it in my pocket and said nothtain industrial lines. That numbers in' to the gal about it till after I'd eatof youths are endeavoring to escape en the dinner she'd cooked for me. service through this contention and Then I said to her: that corporation officials are deliberately helping them to escape is the me so well, and I'm goin' to repay you claim made by the board.

come experts in the short space of 'em in such places as no thief would thirty days and officers of corpora- be expected to look for 'em. The best tions are actually attesting to the fact place for valuables is in a safe. If that these men are indispensable," you're goin' to keep 'em in your house, said Dr. Woodburn, one of the mem- bury 'em where any one'll have to dig bers. "Men who were farmers and up a lot o' dirt to find 'em. Thieves laborers a few months ago and so are too lazy to work." registered June 5 when they made out When I had said this I showed her their registration cards have suddenly the stockin' full o' money. You should become experts in their particular in- a seen the expression on her face-an dustrial calling.

"Some of the claimants have suddenly leaped into the expert class in one, two, three and six months and most of their contentions are absurd. made you think of looking for our valu-My own opinion is that many of these claims are being made solely for the think of looking in the clock? I'm purpose of enabling the claimant to much obliged for the lesson you've escape military service, rather than to taught me." the importance of his position."

SAILORS THREATEN STRIKE

Great Lakes Men May Go Out This Week.

Too Much Simplicity By ALAN HINSDALE

Well, I've come to grief at last. Three of us held up a train and got away with a lot of money there was in the express car. The citizens livin' by the road made up a posse and got after us. We separated, each man lookin' out for himself. I knew of a house where lived a girl that I'd had some experience with a good while before. I thought I'd rather risk myself in that house than any other.

The experience I speak of was this: I was on the road lookin' out for some place to make a haul when I passed a house that looked kind o' tempting. I knocked at the door, and a very likely lookin' gal opened it. I told her that I was down on my luck. I hadn't had anything to eat for two days and wouldn't she give me somep'n to eat. That's all I wanted-somep'n to eat.

The gal didn't give me a hunk of bread and a slice o' meat and tell me to move on. She went to work and cooked me a meal. While she was in the kitchen I was in the livin' room. I had learned that some people are inclined to put valuables in such places as no one would be expected to hide 'em in, and that's where I did my investigatin'. I dived into a pair of old shoes in a closet, a vase on a mantel and other such places as nobody but a fool or an expert would think of lookin', but didn't find anything. But when Become Proficient In Industrial Lines. and swept the bottom with my hand I ran against a stockin'ful o' somep'n.

"You're a mighty good gal to treat for your kindness by givin' you a point. "We have found that men have be- If you have valuables to hide don't put

> expression of surprise that I should have thought to look in the clock for valuables.

> "Well, I declare!" she said. "What bles at all, and how did you come to

She put out her hand to take the swag. Do you know there was such dead innocence in her that for the life of me I couldn't make a move to stop her. I was just paralyzed by her simplicity and confidence. She took the Chicago, Sept. 4 .-- A strike of sail- stockin' with all there was in it right had no more idea of returning the find after her display of misplaced confidence I took a half dollar out of my pocket and offered to pay her for the dinner. But she wouldn't take it.

must give the American fighting men the United States suitably inscribed more and better cannon than the ene- and numbered. Appropriate wages will my possesses; more ammunition, more be paid while boys are at work. food and more of everything that is Working conditions will be carefully vital to the prosecution of war. For supervised so that members of the if the nation permits its armies to Reserve shall be protected against all feat would mean a reign of terrorism its work and members may withdraw in this free land too shocking to be whenever their parents or guardians pictured even in a part of its bar- so desire. barity.

That is why no one-not even boys -should be allowed to think that war is only the soldier's business. This war is the business of every man, every woman, every boy and every girl in America who, by their work, can be of use to American troops.

Primarily, war, because it is destructive, taxes to the utmost the productive energy of the nation engaged. At the same time it weakens the productive forces by taking all of the able-bodied men from farms, workshops and business to do the fighting.

One million American soldiers, the pick of the country's manhood recruited from the various industries, will soon be at grips with the enemy, and workers must be found to fill their places. Additional workers must be located to produce the excess quanti- for their parents or interfere with 300,000 tons was charcoal pig iron, the ties of supplies that these one million their wage arrangements. But these soldiers will require, and the supplies our European allies need.

Where are these workers to be obtained? Boys, the answer rests with you. Perhaps upon witnessing parades of fighting squadrons you provement is a form of proficiency have felt regret that you, too, could by which the country and its industries not have a place in the heroic files. But there is no need to harbor regret.

You and every other boy between the ages of 16 and 21 years may help your country fight and win the war. You may not be able to shoulder a rifle sands of brave Americans are decidor man a gun, but by working to supply everything needful to the men who do these things you will be making ing about his stern task with implicit burgh Railway. your country's guns effective.

President Wilson's Call.

The war has made a place for you. That place is in the ranks of the Penn- fidence is up to you. soldier in victorious fighting trim.

ered by the government that President defeated before they even began the 10,000-ton boat to be fully loaded in five hauls a ton two hundred miles, or from and heifers, \$4.80@13; calves, \$12@16. Wilson has issued a message urging fight. boys of Pennsylvania to enroll. Here Boys of Pennsylvania enroll to give in the trade on the great lakes enables for the amount paid for a fifteen-dollar 11.25; lambs, \$11.25@17.40. is the President's message to you:

"Let me express the hope that the needs to win the war!

It is this phase of war activity that which is a reproduction of the seal of

be overmatched in these things their forms of physical and moral injury. Buffalo, Rochester and Pittsburgh Railvalor will count for nothing. Mere There is nothing of a military charac- way at DuBois, Punxsutawney and bravery will not avert defeat and de- ter about the Reserve, its training or Josephine, Pa., in the heart of the coal



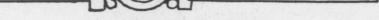
is of a temporary nature and will be become the pig iron of commerce. called for in emergencies only. The Reserve does not seek to shift the employment of boys who are working mately 40,000,000 tons, of which about boys may become members and earn the badge of honor as such.

The Reserve will encourage schoolboy or student members in their studies, as it holds that mental imbenefit.

Workshops, farms and business are depending upon the loyalty of the American people to insure sufficient working forces while hundreds of thouing the national destiny in a far-off states, and some of them are visible cigar as evidence of your satisfaction. \$9@12. land. And the American soldier is go. along the Buffalo, Rochester and Pittsconfidence that he will receive the remain behind.

the American soldier the things he the ore to be transferred at destination ready-made suit of clothes, the ship-

young men of Pennsylvania not now And, fathers, mothers, let your boys expensive ore unloading machines, re- or nearly across the continent!-Bufpermanantly employed may eagerly en- enroll. They are needed sorely need sulting in a minimum cost for transfer falo, Rochester and Pittsburgh Railter the Boys' Working Reserve to fit ed, and it is public service that calls as well as prompt dispatch for the ves. way Employes' Magazine.



A CLOSE UP VIEW OF THE GIANT GRAB BUCKETS WHICH MAKE SHORT WORK OF A CARGO.

ord movement.

Pig iron furnaces are located on the region along this line. These furnaces consume annually about 650,000 tons of ing steel, the "Bessemer" and the "open iron ore, which is converted into pig hearth." iron, the first process in the making of

manufactured iron or steel. Production of a ton of pig iron requires about 2,000 pounds of coke, 1,400 pounds of limestone and two tons of iron ore, the proportion of each varying with the character and metallic content of the ore as well as the character of the coke. Pig iron is so called because the molten metal is run from the furnace in a long trough cut in the sand, from which run shorter sections, It is not intended to keep the boys the long mass being called the "sow" working on the same basis as workers and the shorter ones the "pig." After who are regularly employed. Service cooling these shorter sections of "pigs"

> The quantity of pig iron produced in the United States in 1916 was approxilatter being made by the use of charcoal instead of coke. The volume of pig iron last year was also a record breaker and reflected increasing de- from the railroad depot to your resifacture all furnaces used charcoal for tant in his charges and refuse to pay fuel, but with the invention of the hot him unless he reduced the amount. blast in connection with improved furnace construction the use of coke rapidly became universal in smelting iron increased in the same ratio as your from the ore. The ruins of many of own, you would consider his charge \$60@90. the old charcoal iron furnaces can still extremely reasonable and, perhaps, be seen in Pennsylvania and other hand him an extra dime or a good

right kind of support from those who the last decade in the method of min- how much the railroad company re- \$8.50@10; culls and common, \$5@6. ing, transportation and smelting of iron ceived from the shipment, we quickly Whether he is justified in that con. ore, which have resulted in reducing ascertain from the company's statis- good mixed, \$17; pigs, \$15; roughs, the unit of cost and increasing the vol- tics that the average rate for hauling \$15.50; stags, \$13.50. sylvania Division of the United States Your big brothers, perhaps, are al. ume of steel production in this country. a ton one mile is a trifle less than one-Boys' Working Reserve, an organiza- ready near the firing line or soon will Powerful steam shovels are now used half of one cent, or the one hundredth tion created by the United States gov- be on their way there. For every in open cut mining of the ore at the part of what the drayman received. ernment to furnish emergency workers man at the front there must be five principal mines in the lake region, and For that dime which you may have heavy, \$16.65@18.60; roughs, \$16.65@ so that there will be no shortage of workers at home producing the food. double track railroads haul the loaded given to the drayman, the railroad 16.95; pigs, \$12@16.75. the labor needed to keep the American the clothing, the ammunition, the cars of ore in long trains to immense hauls a ton twenty miles, or farther weapons and other supplies without docks at the head of the lakes, where than from Rochester to Mumford; for \$16.50; western steers, \$6.90@13.80; So important is the Reserve consid- which the bravest troops would be improved loading facilities enable a the price of a dollar hat, the railroad stockers and feeders, \$6@9.20; cows hours. The type of steamer employed Rochester, N. Y., to DuBois, Pa.; and port to the cars or dock by means of ment was hauled three thousand miles.

by over 17,000,000 tons and was a rec- product is rolled into bars and sheets which form the wrought iron of commerce. The conversion into steel requires a change in the character of the metal by increasing the amount of car-

bon, which modifies the texture and greatly increases its strength. Two processes are generally in use for mak-After being converted into steel, the

molten metal is cast into large ingots, creamery, 42@43c. Eggs-Fresh, 42c. these in turn being rolled into blooms and then into smaller masses called bil- \$11.25@12; tidy butchers, \$10@11; lets, which are ready for commercial fair, \$8.50@9.50; common, \$7@7.75; use, and can be utilized in making heifers, \$6@10.25; common to good plates, bars, wire, rods and other forms fat bulls, \$6@9.50; common to good plants.

Many of the larger plants now confinished products such as plates, beams, iron, as it is taken direct from the furnace to the converters while in a molten state.

HOW A RAILROAD EARNS A DOLLAR.

If a drayman charged you fifty cents for carting a ton of freight one mile

Knowing that a ton is quite a load. Now, as the freight was carted from the depot, it was evidently hauled there

ors on Great Lakes freighters may out of my hand. Before she did so I be called by the end of this week, unless ship owners agree to extend the than I had of givin' her a ten dollar so-called Atlantic agreement to in- gold piece I had in my pocket. But clude lake lines.

This was intimated by Victor A. Olander, secretary of the Illinois Federation of Labor and vice president of the Seamen union.

LIVE STOCK AND GRAIN

Pittsburgh, Sept. 4. Butter-Prints, 45½@46½c; Ohio Cattle-Prime, \$12.25@12.75; good, required by the various manufacturing fat cows, \$4.50@8.75; fresh cows and after me for holdin' up the train-we springers, \$40@90.

Sheep and Lambs-Prime wethers. vert the ore into pig iron and thence \$10.75@11.25; good mixed, \$9.75@ gal mighty glad to see me. into blooms or billets and produce the 10.50; fair mixed, \$8@9; culls and common, \$4.50@7; heavy ewes, \$6@9; angles, rods, wire, etc., in a single plant. lambs, \$11@15.75; veal calves, \$15.50 lookin' for the robbers. They're takin' making it unnecessary to remelt the @16; heavy and thin calves, \$7.50@11. up everybody they find. If they come Hogs-Prime heavy, heavy mixed and mediums, \$18.80@18.90; heavy Yorkers, \$18.50@18.80; pigs, \$16@ 16.50; roughs, \$15.50@16.50; stags, \$14

Cleveland, Sept. 4. Cattle-Prime shipping steers, \$11 @11.50; good to choice, \$9.50@10.50; good to choice butchers, \$8.50@9.50; mand of iron and steel over the entire dence or place of business, you would fair to good, \$7.50@8.25; common to world. In the beginning of iron manu- not accuse the man of being exorbi- light steers, \$6.50@7.25; good to choice heifers, \$7.50@8.50; choice fat butcher bulls, \$7@8; bologna bulls, \$6@7; choice fat cows, \$7@8; fair to knowing that a ton is quite a load, good, \$5.50@6.50; canners and cutters, 'em said I couldn't be a train robber; I and that the drayman's expenses have good, \$5.50@6.50; canners and cutters, didn't look it at all, but one of 'em said \$5@5.50; milch cows and springers,

@15.

Calves-Choice calves, \$15.50@16; mixed, \$14.50@15; heavy and common,

Sheep and Lambs-Choice spring lambs, \$15@15.35; fair to good, \$11.50 Many changes have taken place in by the railroad, and, wishing to learn @13; common, \$8@9; choice sheep, Hogs-Yorkers, choice heavies and

Chicago, Sept. 4. Hogs - Bulk, \$17.50@18.60; light, \$16.90@18.65; mixed, \$16.75@18.65;

Cattle-Native beef cattle, \$8@ Sheep and Lambs-Wethers, \$7.05@

September..... 561/2 December..... 1.08% 561%

"The lesson you've taught me is worth a hundred dinners," she said, "and I shall always remember it."

I just went away without sayin' a word. It didn't strike me how a gal had come it over me till I'd got away from her, but I didn't go back on what I'd done. I says to myself, says I. "Let her alone. I may have occasion some day to vouch for what a pure. noble good man I am."

And so it was that when they were did the job not far from the gal's home -I made for the house and found the

"There's been a holdup of a train on the railroad," I said. "A posse are here just you tell 'em you know me to be an honest man."

I hadn't time to go any further for there were sounds of horses' hoofs comin' full tilt. Several men rode up to the house and bolted right in. They found me readin' a good book I'd taken from the library shelves. But they pounced on me right off. The gal protested, and they asked her who I was. She told 'em that I was one 'o the best men she had ever known in her life. I put on a look so good that butter wouldn't melt in my mouth. Some of 'em said I couldn't be a train robber; I they'd better take me along anyway. Finally those who wanted to leave me prevailed and they rode away. But they hadn't gone far before they came back, and one on 'em said to the gal:

"What do you know about this man anyway?"

"Why, he come here one day and asked for something to eat. While I was cooking it for him he taught me a lesson."

"What lesson?"

"That it's foolish to hide valuables where thieves are not expected to look for 'em."

There was a guffaw all round, and without waitin' to hear the rest of the story they yanked me out, put me on a horse and carried me off with 'em.

I caught sight of the gal as I was carried off, and she was the most surprised person I ever seen.

Well, here I am, caged for first bein' melted by a gal's simplicity and second trustin' her to vouch for me. I reckon I won't get out o' this, but if I do I'll be keen enough not to be outdone again in any such fashion.

Chicago Grain Market Close. Wheat. Corn. Oats.