IRON-MAKING.

VALUABLE AND GROWING IN DUSTRY IN THE SOUTH.

Wonderful Development of Alabama Iron Mines-Story of the Iron Boom-A Visit to a Big Mine.

WONDERFUL development a going on in iron-making in the South. I spent som time in Birmingham, which city is the biggest iron producer south of Pittsburg, writes Frank G. Carpenter in the Chicago Times-Herald. There are twenty-six iron fornaces within thirty miles of the town, with a daily output of almost 4000 tons of pig iron. They employ nearly 4000 men, and pay wages of \$150,000 a month. They claim to make iron cheaper than anywhere else in the world, and one of the furnace companies shipped some of its pro-

The South is doing its business on a big, broad scale. There is an enormous amount of money invested. The Tennessee Coal and Iron Company has itself a capital stock of \$21,000,itself a capital stock of \$21,000, and from that region. From time 000. It has mines attered to time Northern capitalists were asked throughout Tenuessee at Alabama, to invest in the mines, but they would and I am told that it coperty is worth as much as some of the small them. European kingdoms. It has a vast One area of coal beds, and is now mining more than 17,000 tons of coal a day. It owns mountains of iron ore, and last year it produced more than 500,-000 tons of pig iron and more than He showed Hewitt the ore, and told 3,500,000 tons of coal. I visited its him it lay there in Alabama on the top come ovens at the town of Bessemer. of the ground and could be had for south of Birmingham, and was told that the ovens there, together with the others owned by the company, make almost 5000 tons of coke a decident of the evidently did not half and he evidently did not he half and he evidently did not he evi while out of its Alabama iron mines alone are daily taken more than 6000 tons of ore. This is perhaps the big-gest company of the South, but there are other large establishments, and an enormous industrial development may be expected there within the next few

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they can produce industrial children

higger ore beds than any other coun-

is estimated, furnish 10,000 tons of

coal a day for more than 11,000 years,

or 1,000,000 tons a day for 115 years.

But Alabama has only a small amount of the great Appalachian coal fields. These fields end themselves in Ala-

ward a distance, it is said, of about 900 miles, and they are from thirty to

They run from there north-

IBON

oped iron mines in China during my stay there, and there are some good mines in Mexico and Central America. There is one iron region in Cubs, and you find small beds scattered through the West India Islands. The great bulk of the product of this hemisphere, however, comes from the United States, and, as I have said, the indications are that our resources have not

yet been touched. The furnaces at Bessemer are within a half mile of the mines from which the iron is taken out. In company with one of the superintendents of the Tennessee Coal and Iron Company I visited them. We rode up to the month of the mine in a carriage, winding our way up a little range of mountains, the sides of which were covered with terrs cotta stones. I picked up one of the stones and found it exceed-ingly heavy, and was told that it was iron ore. The iron lies right on the surface of the ground. They begin on the vein and work right down into the mountain, taking out nothing but iron. Deposits of this kind extend duct not long ago to London and sold through the mountains of the region, and it is a wonder that they were not developed long ago. I was told that iron mines were worked there during the late war and that the Confederate Government got a large part of its coal not believe the stories that were told

> One man who owned some of most valuable iron territory of Ala-bama called upon Abram S. Hewitt, who has made a fortune out of fron, and who has big iron interests to day

man's story.
"Why," said he, "we people here in New York look upon iron as so much gold, and you can hardly make me believe that you people have lumps of gold laying around down South and that no one has yet picked them up. If your story is true I advise you to take neveral New York experts to the

It flows out at the foot in a little river of gold. The stream looks like molten gold alloyed with copper autil it gets a distance of perhaps twenty



THE DANGERS OF MINING.

feet away from the furnace. Here it is divided into two strums. The iron flows one way and the slag or refuge, which has formed a seum and floats on the top, is estrict off in another. The iron is now of a yellow gold color. It seems to have lost its reddish tint. It runs off in a golden stream into a bed of sand, in which little holes have been cut or molded, so that it looks for all the world like a garden patein ready for planting. These holes are of just the size and shape of what is known as an iron pig. They are about as big around as the upper arm of a good-sized man and about three feet long. The yellow stream finds its way in through them and soon the garden is full of these bright yellow pigs, which turn to a copper tint as they cool and then change to the gray they cool and then change to the gray or cold pig iron. As the metal is cooling the heat waves dance over the garden patch of hot iron, and you have to hold you hat before your face to keep from being scorched. After the pigs are cooled they are piled up ready to be shipped to different parts of the United States for the in mann. of the United States for use in manufacturing. The slag goes to waste. It runs off into a great iron pot fastened on car wheels, and is wheeled on a railroad track some distance away and emptied out on the slag heap. There are mountains of such sing near every great furnace, and the invention has yet to be made which will turn it to any other uses than that of ballast-

ing railroads.
We lead the world not only in the production of iron, but also in the making of pig iron. We made 10,-000,000 tons in 1892, which was an increase of more than 1000 per cent. over the product of 1865. Since that time we have increased our steel pro-duct 360 times, and we are now makduct 360 times, and we are now making enough steel every year to give every man, woman and child in the United States 140 pounds, and have some to spare. Some of our pig iron which was lately sent to England, I am old, was sold for less than \$7 a ton. We made pig iron at the time of the Revolution, which was worth \$50 a ton, and we are making steel \$50 a top, and we are making steel now, it is said, almost as cheaply as a

good class of iron.
It is wonderful how iron increases the value after it is turned into ma-chinery or articles of use by the people. You get some idea of what labor is worth when you think of it.
It is estimated by Carroll D. Wright,
of the Labor Bureau, for instance,
that seventy-five cents' worth of common iron ore when turned into bar iron is worth \$5. If you make it into horse shoes it is worth \$10, or if into table knives, 8180. Seventy-five cents' worth of ore manufactured into needles is worth \$6800, and when made into buttons more than \$22,000. If the iron is converted into watch springs its value is almost ten times as great, and when turned into hair ing of the United States for many years were at work. The vein of ore that I springs your seventy-five cents' worth to come. I was told at Bessemer saw ranged in width from eight to of rock and stone will sell for the that the available coal of Alabama twenty-four feet. It is a great sand-alone, if it could be put into a lump, wich of iron ore between walls of slate ference between seventy-five cents and would make a solid chunk seventy and rock. It dips down into the \$400,000 is the value paid for labor ground at an angle of about thirty-live alone. So you see that, after all, the degrees. muscles and brains of its people. If hair springs, and could find customers for them, we would be so rich that we could buy the whole world and take flyers in all the speculative property on the sun, moon and stars and still have money to burn.

A Great Find,

One of the greatest finds of treasure ever known was that of a Russian in the village of Starogarsilki. The man was a resident on the estate of Prince Ostersby, whose ancestors were plun-dered and expelled from their posses-sions by the Tartars. The treasure was probably secreted by the family at the time. The man had been given his clew somehow or another, and he worked ten years before finding anything. At last he came across twelve large boxes filled with very ancient coins of fine gold, besides enormous other articles of great value. The total value of the find was given at 17,000, 000 rubles, two-thirds of which went to the State and one-third to the



Johnnie-"Grandpa, what did Washington's father do after he cut the cherry tree?" Grandpa-"Well, I dunno. Guess he made some cough syrup out o' th' bark."—New York Herald.

A KNOWING DOG AND HEN.

Fowl and St. Bernard Frolle Like Two Old Chums.

Whitestone Village, says the New York World, contains some remarks ble animals, but the most intelligent one is a huge St. Bernard dog that belongs to William Higginson, the archi-tect, of Fulton street. Many strange tales are told of the intelligence of this dog, who answers to the name of Duke.

Duke is beloved by the children of the village. He escorts them to school very morning, and waits patiently at the school door until recess time, when he joins in with the children in their games. No play is pleasure unless Duke is a participant in it.

Among Mr. Higginson's possessions is a large flock of fancy chickens.

These are the product of one chicken and her mate, a large buff Cochin rooster. The affection Duke has for this hen is almost filial. He allows the hen to perch on his head and then canters around the yard with her,



BIRD AND DOG ARE CHUMS.

Whenever the hen strays off with her progeny Duke corrals her from the rest of the flock and drives her back to the yard. When night comes the hen roosts upon the dog's head and the wo sleep together.

The most remarkable thing about Duke and the hen is that they seem to perfectly understand each other. When the hen begins to eachle just provious to laying, Duke never leaves her. He squats down and with his four feet forms a nest, in which the hen lays her egg. Mr. Higginson has refused a large sum for both the dog and the hen.

New York's Composite Personality.

Mrs. Schuyler Van Rensselaer contributes to the Century a paper enti-tled "Places in New York," in which she gives a picture of interesting phases of life in the New World metro-polis. Mrs. Van Rensselaer says: More than seventy six per cent. of those who people New York to-day were born of foreign mothers; more than forty per cent. were born on foreign soil themselves; and many of these aliens, brought from many dif-ferent lands, continue here to live in clusters with their own kin after their own kind. Yet while each of these clusters, and each of their wandering off shoots, modifies the new world metropolis, all of them together do not destroy its cohesion, they simply intensify its curious composite sort of personality. They make it multifar-iously diverse, but they leave it an en-tity. They touch every portion of it with pungent exotic flavors, but as flavoring an American whole. They play their several parts in a civic life that is cosmoramic beyond the belief of those who have not studied it well but they do not turn New York into a cosmopolitan town; for this means a town which, overwhelmed by its strangers, has lost, or has never possessed, a character of its own.

Diamonds Worn on Finger-Nails,

Millionaire women, says the New York Journal, have a new eccentricity which they are quite sure they can re-



DIAMONDS IN FINGER-NAILS.

serve for their own exclusive use This new millionaire fad is to wear diamonds on the finger-nails. The new fashion, which has all the glory and prestige of an invention along more scientific lines, demands that women with bank accounts long enough to permit of this costly triding shall have a tiny gold cap made for each of their tingers. From the cap is suspended on the outer side a big diamond drop, which sparkles most satisfactorily, there being one large sparkle for each finger-nail. Of course the sparkles are not so conspicuous as they would be if a large number of rings were not worn at the same time, but society is as yet hardly ready for the great sacrifice which the laying off rings would entail. Some day, per-haps, the finger-neil adornments may be allowed to shine in undiminished

KEYSTONE STATE NEWS CONDENSED.

PENNSY'S UNARMED ARMY

Greater Than That of Any Other State is the Union.

Adjutant General Stewart, of Pennsylvania. has made his report to Congress relative to the strength of the militia in the State. The ecmmissioned officers, Generals and General's staff number 65; cavalry 14; light bateral's staff number 65; cavairy 14; light batteries, 18; infantry, 575. Enlisted men, noncommissioned officers, 1,842; musicians, 389; private cavairy, 130; light batteries, 174; infantry, 5,464. The aggregates are: General staff, 191; cavairy, 191; light batteries, 247; infantry, 8,944. grand total, 8,699. The available men for active service number 839,528, which is more than any other Staterports. New York, according to the statement of its adjutant General, has 800,000, lillinois, 700,000, and Ohio, 650,000.

A joint agreement of merger and consoli-

Illinois, 700,000, and Ohio, 650,000.

A joint agreement of merger and consolidation was filed in the office of Secretary Reeder between the St. Marys & Southwestern railroad company and the Euffalo & St. Marys allroad company, forming a new corporation under the name of the Buffalo, St. Marys & Southwestern railroad company. The company is capitalized at \$1,000,000, and will operate between St. Marys and Claremont. Dr. Frank Hall of Ridgway, is president of the company.

mont. Dr. Frank Hall of Ridgway, is president of the company.

Mrs. Mark Elisworth, of Genesce, Potter county, drowned her child in a small creek. The woman cat a hole in the ice and dropped the child into the water. She then reported that the child had been kidnapped, and the story was corruborated by her husband. Investigation disclosed the child's body under the ice, and Elisworth and his wife were arrested. The woman male a confession, and said hunger had forced her to do it.

A ten-acre plot of ground, adjoining Arington heights, on the line of the Greensburg, Jeanneste & Pittsburg electric railway, has been donated to the Gill Giass Company of Philadelphia by Frank Klopfler, an extensive land holder of this vicinity. The company will creet a large glass plant on the site and will manufacture light builts, water gauges for boilers, and several other small articles, and will employ 500 hands.

Mathew Martin, of North Strabane township, Washington county, was killed while working on his farm. He was hauling cornodder when the wagen partially over-tarned, throwing him off and breaking his neck. Martin was a well-known farmer of middle age and unmarried.

A charter was granted at Harrisburg to

A charter was granted at Harrisburg to the West Newton street railway company. This road will run from West Newton to Herminia, five miles, where it connects with the Hempfield branch of the Pennsylvania railroad, forming a direct line to Greens-

Robert Barr, 17 years old, of Alleghen; township, Westmoreland county, is the latest victim of a hunting accident. While cross-ing a fence the hummer of his gun caught on a rail and the load of his gun entered his side. He is in a critical condition and may die.

Allegheny college has just completed a fine gymnasium and armory, which was used by the castet battailon. The building is a mas-sive structure of brick and stone, and will be furnished with the equipments necessary to a first-class gymnasium.

Near New Rehobeth church in Clarion township, about four miles from Clarion, the boiler of a portable saw mill exploded, killing a man by the name of Pierce Taylor and seriously injuring five others, whose names cannot be learned. The P. L. Kimberlymill at Greenville, went

into operation Wednesday morning, after an idieness of several weeks, giving employment to several hundred men. The prospects are favorable for a steady run.

The Westinghouse Electric and Manufac-turing company started its East Pittsburg works on double turn. The making of 760 street ear motors and other contracts caused the step.

The blast furnaces of the Dunbar Furnace company, at Dunbar, began operations Tuesday night, after a shutdown of five months on account of the slump in pig iron

W. H. Pauley, the veteran editor of the Waynesburg "Republican," is recovering from the effects of having his right foot am-

putated because of gangrene.

Thomas Smith,an employe of the American Steel Casting company at Sharon, was seriously hurt by a casting weighing 2,000 pounds striking him.

Fire in the residence of Harry Marker, as Ligonier, destroyed the contents of two bedi rooms and considerably damaged the inter-ior of the house.

Mrs. E. Mink, of Charleston, eight mile east of Sharon, was the victim of a bruta assault, committed by two masked men Sun-day night.

The fine residence of W. I. Corrin, at Franklin, was damaged by fire to the extent of \$2,500, caused by a defective flue. I. S. Work, a druggist, of New Florence, was beaten by masked men and robbed of several dollars.

John Peppin, employed in the Westmore-land mines at Larimer, was instantly killed by a fail of coal.

Samuel Kentium was struck by a train at Morreilville, near Johnstown, and instantly

Minor Mention.

Councilman Burket has introduced a cur-few ordinance in Council at Alteona.

Chicago has on hand a cash balance of \$5,500,000.

Kansas proposes to send provisions to the poor of Chicago.

Montana leads in wool production, with 'a clip of 21,549,000 pounds. Secretary Edgerton has called for a Na-tional conference of Populists at Kansas

City, Mo.

Jr. J. Mount Bleyer, of New York City, exposed to view the human heart in action by use of X rays and the fluoroscope.

C. C. Merrill, a California contractor, has accounted by contract for large the source.

secured the contract for laying the sewer pipe in the City of Mexico, involving over \$3,000,000.

The largest onion reported last year was on exhibition at Los Angeles, Cal. It was thirty-six inches in circumference and weighed seven pounds.

There were 980 cars of Mexican granges exported to the United States during the senson just closed, and next year these figures will be doubled without doubt.

Horse owners and dealers in New York City insist that the asphalt pavements be so treated with sand that the horses shall no longer slip and injure themselves.

The House Committee on Military Affairs reports that it costs \$164 to fire one round from an eight-inch rifle; \$322 from a ten-inch rifle, and \$650 from a fifteen-inch pneumatic

Claims filed in the Department of State, Washington, by American ettizans against Sprin, arising out of the insurcection in Cuba, number eighty-three, and aggregate nearly \$10,000,000.

\$10,000,000.

Denoon Capon, of Sharon, Mass., is dead.
He was a singular character. He gave over
\$118,000 to church institutions during his
life on condition that they pay him six per
cent. interest until he died.

Great distress provalls among the river
miners, almost all of the 10,000 diggers in
the Monongahela Valley, Pennsylvania, being
out of employment because of the dull condition of the coal business and because of
the freezing of the river.

PENNSYLVANIA LEGISLATURE.

Feb. 1.—After nours of bitter debate, the treasury investigation resolution was passed without division, but with an amendment which practically commits the House to the enactment of a law requiring interest on Blate deposits.

Mr. Sparks, of Berks, announced to the House the death of Bepresentative P. McCanley Cook of Fulton county.

Bills were offered—To provide for the selection of a sita and the creation of a state hospital for the criminal Insane, to be cally the state Hospital for Criminal Insane, and making an appropriation of \$200,000 therefor, and relating to the commitment, detention and discharge of insane persons charged with or convicted of crime. Authorizing the creation of a board, to consist of the governor and secretary of the commonwealth, which shall fix the price of school text books to be purchased by boards of education, not exceeding 75 per cent of the present wholesaic prices; an act to extend the right of trial by jury in proceedings to disbar an actorney and providing firs change of venue on such proceedings.

Feb. 2.—The first important business today was the introduction of the following resolution by Senator White, of Beaver:

"Whereas, It is the duty of the general assembly under the constitution to, immediately after each decennial census, apportion the state into congressional, senatorial and representative districts; and.

"Whereas, There has been no congressional or representative apportionments, and some portions of the state are deprived of the representative they are apportionment since 1857, nor senatorial apportionment since 1857, nor senatorial apportionment since 1857, nor senatorial apportionment and representative apportionment compressional fermance of the state, in his message of January 5, 1897, calls the attention of the general assembly to this question, and urges the passage of proper congressional, senatorial and representative apportionment committees be instructed to report on said bills withing two weeks; that such bills shall be passed at the present session

ture.

Bills were read: By McQuown, a supplement to the lifeoka high license law, which provides that the several courts of quarter sessions in the granting of liquor licenses shall not grant in any city more than one license for every 1,000 inhabitants, and in the several boroughs not more than two license for every 1,000 inhabitants or less.

By Mr. Rowland, to insure greater safety to life in thenters and other places of amusement by prohibiting persons from standing in aisles, and providing a penalty of a fine of \$100 and an imprisonment of 20 days in the county prison on any manager or lesses, who shall sell tickets to persons with the privilege of standing in aisle, corridor or passage way. assage way.

February 3.—Everything is in chaos concerning a plan for a continuance of the session of the Legislature. Until the governor arrived Tuesday night there was talk of an adjournment for about two weeks, but his excellency said there was no necessity for an adjournment at all. He immediately ordered a number of benches and deaks but in the Supreme Court chamber for the use of the Senate, and when the members of that dignified body arrived they were surprised to find some very comfortable wooden deaks; and really there is no reason for the Senate adjourning at all, as the quarters, while not inxurious, are very comfortable, and business can be transacted as usual.

Senate convened at 11 a, m. A number of bills were presented, and when it was announced that the House had adjourned until 11 o clock to-morrow Senator Grady's motion was reconsidered and the Senate adjourned until 11 o'clock to-morrow morning.

The House met in the postoffice building, third floor, at 11 a, m. The room had been used for civil service examinations, and contains small desks such as are used in school houses, but there were barely enough for the members. Speaker Boyer when he took his seat was applauded. After prayer by the chaplain the speaker announced that the gavel he was using was presented to him in 1887 by Charles Voorhees, then chief clerk, but now a member of the House.

Representative Kirkslager presented a resolution that all members who had resould their deaks from the fire be pormitted to re-

Representative Kirkslager presented a resolution that all members who had resound their deaks from the fire be permitted to retain them. The resolution caused a laugh, and Representative Lytte said the member who presented the resolution must be from a very remote section of the Commonwealth, else he would not present such a resolution, as that was not the way to get State property. Mr. Kirkslager was very much in earnest, and said he had rescued the deak at the risk of his own life and thought he was entitled to it. The resolution was passed by an almost unanimous vote.

The following bills were read as follows: By Robert Smith—An act appropriating \$500 to the Southern home for destitute children at Philadelphia.

A. B. Farr—An act to regulate the hours of labor or mechanics, workmen and laborers in the employ of the Stare municipal corporations therein or other wise engaged on public works.

F. M. Brophy—Appropriating \$7,000 for

public works.

F. M. Brophy—Appropriating \$7,000 for the Eye and Ear Hospital at Pittsburg.

The House then adjourned until 11 o'clock

The House then adjoined in to the meeting place with a hatchet in his hand. He had sent for the old gaves and it did not arrive, He called the House to order with the hatchet. When the chaplain finished the gaves

Fob, 4.—Lieut.-Gov. Waiter Lyon called the Senate to order at 11 o'clock and read the communication from the governor an-nouncing that the board of public property and the state officials had agreed on Grae-M. E. church for a temporary home for the heriumity hodies.

M. E. church for a temporary home for the legislative bodies.

Senator Grady offered his resolution for an adjournment until February 22, which precipitated a heated discussion. Senator Gobin took the floor in behalf of the governand said that if the legislature adjourned until February 22, it would practically loss two months, and that the sessions would not be over until July.

Mr. Gobin moved to amend by fixing next Monday, February 8, as the time for adjournment. This was agreed to by a vote of 22 to 12.

Senator Thomas offered a resolution that

Senator Thomas offered a resolution that Senator Thomas offered a resolution that the legislature refuse to order the erection of a new state house until a better fire department is secured for Harrisburg. Senator Grady asked that the resolution te laid over. It was finally referred to the committee on public buildings.

Senato bill No. 1 was then taken up and passed. This was the first bill passed by the house. The president then announced that the house had resemble resolution. "Instructs the house had resemble resolution." Instructs

passed. This was the first bill passed by the house. The president then announced that the house had passed a resolution "instructs ing the governor to select a competent architect to make plans and ascertain the doat for the crection of a new state building." The resolution was passed with an amendment that the governor advertise and solicit for an architect.

Several bills were passed and the senate adjourned until Monday night at 3 o'clock.

Bills were offered in the House: Making it unlawful to erect and maintain wire fences constructed in whole or in parts along the public roads and between adjoining lands. The following resolution was adopted:

"Hesolved by the house of representatives, the senate concurring. That the governor be authorized and requested to select architects to make preliminary plans for the orderion of a new capital building, for the impection of a new capital building, for the impection and information of the members of the legislature, heads of departments, and all others interested, such plans to be accompanied with an approximate estimate of the cost."

The house concurred with the senate on a motion to adjourn until Monday evening at 5 o'clock, when the first assion in the Grace.



LOWERING HORSES INTO A MINE.

coal output, and we produce, you know, about one-third of all the coal of the world. In 1894 we mined 170,000,000 tons of coal, while the whole world produced only 570,000,000 tons. The only country which beat us that year was Great Britain. We have thousands of square miles of coal lands outside of the Appalachian fields, and thousands of square miles of coal lands outside of the Appalachian fields, and there are great undeveloped coal areas in the West. I was told of a great iron mountain which is to be opened by a railroad from Ealt Lake Oily to Los Angeles during my stay in Utah, and there are large iron deposits in Missauri. To-day the leading countries of the world which produce iron are Great Britain, Germany. France, Austria-Hungary, Rossis, Belgium and Breden. Spain mines a great deal of itser ore, but she ships the most of the topics are included in a very short ore, but she ships the most of the topics are included in a very short ore, but she ships the most of the topics are included in a very short ore, but she ships the most of the furnace whenever amolting is going on. The heat is so great that the iron is melted in a very short time. It is drawn of from each furnace twice a day.

THE GREAT SLAG POT The coal and iron of the South are South and get them to swear to what fairly hugging each other. They lie they see before you try to place such side by side, and when their marriage property in New York."

It was some time after this before the Alabama mining boom began. A takes place in the furnaces with the li was some time after this before the Alabama mining boom began. A stone, which is also found near by, great deal of this was on paper, but the foundation is there, and the iron in the shape of iron and steel more mines are as valuable to-day as they cheaply than their kind in any other portion of the world. were ten years ago. They are now all There is no doubt that we are to furnish the greater part of the aron tor the world in the future. We have pressed air drills. The cars were hauled up and down an inclined railtry, and our coal fields are practically inexhaustible. There is enough coal way by steam, and hundreds of sooty in Alabama to do all the manufacturlaborers, with candles in their hats, miles long by sixty miles broad and ten feet thick. Such a lump would, it

I could hear the boom! boom! boom ! of the blasting powder as I went | we could turn all of our iron ore into through the mine. At times the air shook and quivered with the concussion, and our candles were blown out, Dynamite is used almost altogether in iron mining, and the danger is very great if it is not carefully handled. Every now and then accidents occur in the mines. Men are torn to pieces, the walls fall in, and there is great loss

Leaving the mine, I next went to one of the great furnaces at the foot of occurs pure in a state of nature. The used at the Bersemer furnaces, contains only about forty-eight per cent. of iron, and the superintendent told

of life. Red Mountain, where the ore is turned into pig iron. Iron, you know, never the Red Mountain, which is

me that the purest iron stone found snywhere contains only seventy per cent. The rest is made up of rock and other minerals, and it is necessary to separate the iron before it can be used for manufactures. This process is known as making pig iror. The iron is mixed with limestone and coke in great furnaces, which are, I judge, as high as a six-story house. The furnaces are filled with alternate layers of coke, limestone and iron. It takes an enormous blast to furnish enough heat for such a furnace, and the blast is created by immense engines, which force the air first through what are perhaps the biggest stoves of the world. They are immense tubes, many feet bigh, and as big around as a city gas tank. They are lined with firb-brick and are beated by the gas which comes from the furnaces. The air is