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I will teach you to pierce the Bowels of the Earth, and bring out from the Caverns of Mountains Metals which will give strength to our hands and subject all Nature to our use and pleasure.—DR. JOHNSON.

PUBLISHED EVERY SATURDAY MORNING BY BANNAN & RAMSEY, POTTSVILLE, SCHUYLKILL COUNTY, PENNSYLVANIA.

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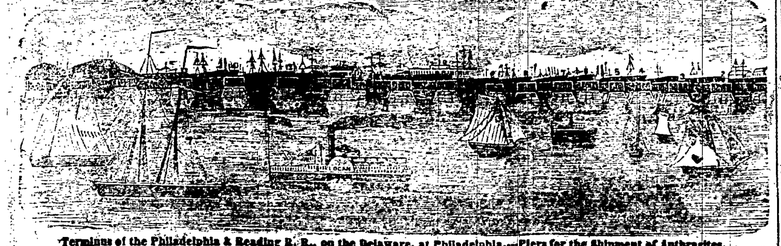

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FROM HOBOKEN.
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Also Bituminous and Cumberland Coals, of well established reputation.
Offices:—PHILADELPHIA, 217 Walnut St.
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February 22, '68 1-

NOTICE
WE have appointed Messrs. HAMMETT & NEILL, 217 WALNUT STREET, PHILADELPHIA, sole Agents for the sale of our
SILVER BROOK LEHIGH COAL,
From Port Richmond, Philadelphia.
HOSIE & LONGSTREET, Miners.
Silver Brook, Feb 22, 1868. 8-1y

Pier 21.
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COAL.
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ANTHRACITE & BITUMINOUS COAL.
OFFICES: {327 Walnut Street, Philadelphia. 422½ Kilby Street, Boston. (Room 64 Trinity Building, N. York.
Sole Agents for West Lehigh Greenwood Coal and Coal from the Locust Mountain Colliery of the Mammoth Consolidated Coal Company.
GEORGE CREEK BITUMINOUS on board at Baltimore or Georgetown. Jan 1, '68—1-

REMOVAL
THE undersigned have removed from Room No. 35 Trinity Building, to 911 Broadway
No. 35, Pine St., First Floor, Front,
Between Nassau and William St., and offer for sale LORBERRY EAST FRANKLIN COAL, from mines of Henry Heil; CENTRALIA LOCUST MOUNTAIN from mines of J. M. Fox; CALDWELL, GORDON & COMPANY'S and other well known Mines.
SCHUYLKILL RED AND WHITE ASH
COAL.
CUMBERLAND AND BROAD TOP SEMI-BITUMINOUS COAL.
CALDWELL, GORDON & CO.
Feb 29, '68 9 6m

JAMES J. CONNER,
Miner and Shipper of the Celebrated
LOCUST MOUNTAIN COAL,
Pottsville, Schuylkill County, Penna.
Jan 1, '68

COAL LANDS
TO LEASE.—The Schuylkill Coal Company are now prepared to make leases on their lands in Foster Township, Schuylkill County. These lands are located on the very best portion of the Heckscher Basin, having over half mile run on the Daniel Coal, Locator, and all the veins known in that basin, both above and below water level. Favorable leases with an abundance of timber for sale cheap. Applications to be made to good tenants, on application to H. H. BOLY, President of the Company, No. 8 Wall Street, New York. Jan'21, '68—1-

LORBERRY CREEK.
EAST FRANKLIN LORBERRY VEIN COAL.
My East Franklin Lorberry Coal is now sold exclusively by Messrs. CALDWELL, GORDON & Co., who are my sole Agents. Parties ordering from them, may always depend upon getting a pure article.
OFFICES: {No. 117 Walnut Street, Philadelphia. No. 55 Pine St. New York. No. 149 State Street, Boston.
January 1, '68—1- HENRY HEIL.

LORBERRY COAL.
Owing to the undersigned having consolidated our Three collieries in the Lorberry Region, will hereafter transact our business under the name of
MILLER, GRAEFF & CO.
MILLER, STEES & CO.
GRAEFF & NUTTING.
Mr. GRAEFF, a member of our firm, having associated himself with J. H. BLAKISTON, will reside in Philadelphia and all orders shipped by them will be under the exclusive control of J. H. BLAKISTON, GRAEFF & CO.
By increased care and attention in its preparation, we hope to maintain the reputation of our celebrated Lorberry Coal. Purchasers abroad can rely upon having the coal shipped to the very best order.
MILLER, GRAEFF & CO.
Jan 1, '68 1-

BOSTON.
JAMES M. REED,
No. 17 Doane St., Boston.
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Dovey, Bulkley & Co., Miners and Shippers of Lorberry Coal.
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Jan 1, '68

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COAL. COAL.
A. T. STOUT & CO.,
Miners and Shippers of the celebrated
"Fulton" & "Stout" (Lehigh) Coals,
From the Ebervale and the Stout Collieries, near Hazleton, Pa., and Dealers in the best varieties of
ANTHRACITE AND BITUMINOUS COALS.
Orders may be given from mines on board vessels at TRENTON, N. J. ELIZABETHPORT, N. J.
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Jan 1, '68 1-

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SHIPPED BY
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Pier No. 2, Elizabethport, New Jersey.
No. 205 & 2 Walnut St., Philadelphia, Room 68, Trinity Building, New York. No. 71 Doane St., Boston.
J. G. MOODY, Agent.
March 7, '68 10-1m

HASTINGS & Co.,
Manufacturers of Oil and Candles, and Dealers in Carriers' Oils.
MINERS' OIL IN CASKS AND BARRELS
Always on hand and for sale at the very lowest market price.
New York—154 Front St., corner Maiden Lane.
WAITSHILL HASTINGS, New York.
JOHN HASTINGS, New Bedford.
B. BANNAN, Pottsville, will supply our Oils at manufacturers prices.
Manufactory at New Bedford.
New York, May 18, '67 9-1y*

FIRST CLASS COLLIERY for Lease.—The executors of James Dundas, decd, and the executors of Wm. Richardson, decd, offer for lease the Peaked Mountain Colliery on the "Catharine Grobe" tract, situate in Foster Township, Schuylkill County, Penna. The lease will grant the right to mine on the north dips of the "Big Orchard," "Primrose," "Holmes," "Crosby or Mammoth," "Skidmore," and "Buck Mountain" Veins. Also, the right to establish a new colliery on the basin between the peaked Mountain and Mine Hill, and work all the veins of the basin on both dips—and likewise all coal above water level on the adjacent lands of the Forest Improvement Company, between certain points. The Peaked Mountain Colliery is worked by two shafts, and the improvements, consisting of hoisting engines, new large Cornish engine, pumps, breakers, boxes, &c., &c., &c., are all in excellent condition. This most desirable property will be leased on liberal terms.
The owners will make satisfactory arrangement with a good lessee for building a first class
BREAKER.
Further information and exhibits of maps, surveys, &c, will be given to responsible parties, on application to THE EXECUTORS OF JAMES DUNDAS OR WM. RICHARDSON, 400 Prune street, PHILAD., or to CHARLES M. HILL, Agent, Pottsville.
Jan 1, '68 [Jan. 18, '68—1-

SCHUYLKILL COUNTY
SOAP & CANDLE WORKS.
E. O. Neidt & Co.,
(Successors to CHAS. F. KOPITZSCH.)
Corner Second and High Streets,
POTTSVILLE, PA.
January 11, '68 2-1y

MEDICINAL.
HOOFLAND'S GERMAN BITTERS,
AND
Hoofland's German Tonic,
The Great Remedy for all Diseases
OF THE
LIVER, STOMACH, OR DIGESTIVE ORGANS.
Hoofland's German Bitters
Is composed of the pure juices (or, as they are medicinally termed, Extracts) of Roots, Herbs, and Barks, making a preparation, highly concentrated, and entirely free from alcoholic mixture of any kind.
Hoofland's German Tonic,
Is a combination of all the ingredients of the Bitters, with the purest quality of Santa Cruz Rum, Orange, &c., making one of the most pleasant and agreeable remedies ever offered to the public.
Those preferring a Medicine free from Alcoholic admixture, will use
Hoofland's German Bitters.
Those who have no objection to the combination of the Bitters, as stated, will use
Hoofland's German Tonic.
They are both equally good, and contain the same medicinal virtue, the choice between the two being a mere matter of taste, the Tonic being the most palatable.
The stomach, from a variety of causes, such as Indigestion, Dyspepsia, etc., is very apt to deranged. The Liver, as clearly as it does then becomes affected, which is that the parts suffer from several or more of the following diseases: Constipation, Flatulence, Inwards Piles, Fulness of Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fulness or Weight in the Stomach, Sour Eructations, Sinking or Fluttering at the Pit of the Stomach, Swimming of the Head, Hurried or Difficult Breathing, Fluttering at the Heart, Choking or Suffocating Sensations when in a Lying Posture, Dimness of Vision, Dots or Webs before the Sight, Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin, and Eyes, Pain in the Side, Back, Chest, Limbs, and Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil, and Great Depression of Spirits. The worst forms of these diseases arise from the greatest caution in the selection of a remedy for his case, purchasing one-ounced from his advertisements and intrinsic merit, is skillfully compounded, free from injurious ingredients, and has established for itself a reputation for the cure of these diseases. In this connection he would submit those well-known remedies—
Hoofland's German Bitters,
AND
HOOFLAND'S GERMAN TONIC,
PREPARED BY
Dr. C. M. JACKSON,
PHILADELPHIA, PA.
Twenty-two years since they were first introduced into this country, during which time they have undoubtedly performed more cures, and benefited suffering humanity to a greater extent, than any other remedies known to the public.
These remedies will effectually cure Liver Complaint, Jaundice, Dyspepsia, Chronic or Nervous Diarrhœa, Disease of Kidneys, Affections of the Stomach, or Intestines, Nervous Debility, Chronic Diseases of a Delicate Nature, Diseases arising from the indiscretion of the Kidneys, and all Disordered Liver, Stomach, or Intestines.
DEBILITY.
Resulting from any Cause whatever.
PROSTRATION OF THE SYSTEM,
induced by Severe Labor, Hardships, Exposures, Fevers, &c.
There is no medicine extant equal to these remedies in such cases. A tone and vigor is imparted to the whole system, the appetite is strengthened, food is enjoyed, the stomach digests promptly, the blood is purified, the complexion becomes sound and healthy, the yellow tinge is eradicated from the eyes, a bloom is given to the cheeks, and the weak and nervous invalid becomes a strong and healty being.
PERSONS ADVANCED IN LIFE,
And feeling the hand of time weighing heavily upon them, with all its attendant ills, will find in the use of this BITTERS, or the TONIC, an elixir that will impart the vigor of youth, supply the place of failing energy and ardor of more youthful days, build up their shrunken forms, and give health and happiness to their remaining years.
NOTICE.
It is a well-established fact that fully one-half of the population are suffering from want of good health; or, prefer to, "never feel quite well." They are languid, nervous and have no appetite. This class of persons, by using the BITTERS, or the TONIC, is especially recommended.
WEAK AND DELICATE CHILDREN
Are made strong by the use of either of these remedies. They will cure every case of MARASMUS, without fail.
Thousands of certificates have accumulated in the hands of the proprietor, but space will allow of the publication of but a few. Those it will be observed, are men of note and of such standing that they must be believed.
MILLER, GRAEFF & CO.
Jan 1, '68 1-

TESTIMONIALS.
Hon. George W. Woodward,
Chief Justice of the Supreme Court of Penna., Philadelphia, March 16, 1867.
"I find 'Hoofland's German Bitters' a valuable medicine in cases of attacks of Indigestion or Dyspepsia. I can certify this from my experience of it.
Yours, with respect, JAMES THOMPSON."
From Rev. Joseph H. Kennard, D. D., Pastor of the Tenth Baptist Church, Phila.
Dr. Jackson—Dear Sir—I have been frequently requested to connect my name with recommendations of different kinds of medicines, but regarding the practice as out of my sphere, I have declined; but with one instance and own family, of the Hoofland's German Bitters, I depart for once from my usual course, to express my full conviction that, for general debility of the system, and especially for Liver Complaint, it is a safe and valuable preparation. In some cases it may fail; but usually, I doubt not, it will be very beneficial to those who suffer from the above causes.
Yours, very respectfully, H. H. KENNARD, Eighth, below Coates St.
German Bitters' is a blessing to the aged, and a source of great benefit in and want of nervous Tone, truly. GEO. W. WOODWARD.
Hon. James Thompson, Judge of the Supreme Court of Pennsylvania, Philadelphia, April 23, 1866.
"I consider 'Hoofland's German Bitters' a valuable medicine in cases of Dyspepsia, and cases of debility, arising from derangement of the digestive system."
From Rev. E. D. Fendall, Assistant Editor Christian Chronicle, Philada.
I have derived decided benefit from the use of Hoofland's German Bitters, and feel it my privilege to recommend them as a most valuable tonic, to all who are suffering from general debility or from diseases arising from derangement of the liver.
Yours truly, E. D. FENDALL.
CAUTION.
Hoofland's German Bitters put in quart bottles, $1 50 per bottle, or a half dozen for $7 50.
Do not forget to examine well the article you buy, in order to get the genuine.
For sale by all Druggists and dealers in Medicine.
Feb 14, '68 1-1y

IRON AND STEEL.
Report of Mr. Hewett, United States Commissioner to the Paris Exposition, on the New Processes, Resources, and Present Condition of the Iron and Steel Industry Throughout the World—How England and France can Undersell America, while we Produce with less Labor than they!
We are compelled to omit those portions of Mr. Hewett's report which describe the specimens of ore and products of iron and steel exhibited at the Exposition, and new processes employed in their manufacture, and the works at which they are made. This information, though forming the body and main object of his report, is of interest only to those practically engaged in the iron and steel manufacture, and is too voluminous to be inserted here. The following is the conclusion of his report, and presents those general considerations relative to the world's resources for the manufacture of iron and steel, and the social condition of those engaged in it, which will interest the general reader.
The Production of Iron.
Allowing for the production in barbarous countries, and something for the use of scrap iron, it may be stated in round numbers that the production, and consequently the consumption of the world has reached 9,600,000 tuns of 2,240 pounds each, or 21,280,000,000 pounds; so that if the population of the world has reached 1,000,000,000, a consumption of a little over 20 pounds of iron per head. A careful calculation, after allowing for the iron exported, shows that the consumption per head in England is 189 pounds of iron. The consumption in Belgium has reached about the same limits. The consumption in France is 62½ pounds per head, and in the United States not far from 100 pounds per head. If the industry of the whole world were as thoroughly developed as it is in Great Britain, the consumption of iron would reach nearly 90,000,000 tuns per annum. If brought to the standard of the United States, a little less than 50,000,000 tuns per annum would answer; or if to that of France, a little over 30,000,000 tuns would be required—figures to be increased further by the steady increase of population in the world.
It will be interesting, therefore, to inquire into the sources of future supply possessed by the nations to which this great demand must come. Sweden possesses exhaustless supplies of the very richest and best kinds of primitive ore, but she has no coal, and a heavy expense for transportation must be incurred in bringing coal and ore together, and as a general rule, it is found more economical to transport the ore to the coal than to the coal to the ore. The limits of the manufacture of iron by wood have long since been reached, and hence Sweden can only be looked to as a source of supply of ore to other countries possessing mineral fuel when the iron manufacture has been firmly drawn upon.
In Russia, also abounding in immeasurable supplies of ore, there is a possibility, but not much probability, that mineral coal may be developed to an extent sufficient for its own supply of iron. The production of charcoal iron is also capable of some, but not of indefinite extension.
The same remark applies to Austria and the States of the Zollverein. In Italy there is no coal, and hence its rich ores are in the same category as those in Sweden, only far less abundant. Algiers abounds in ore, which has to be transported to the coal. Spain is rich in ore, and has a carboniferous formation on the northern borders, but no attempts have been made to render it available for the production of iron. In France the present manufacture of iron is only maintained by the aid of the importation of coal to the extent of over 2,000,000 tons, and of 477,187 tuns of iron ore in 1865.
In Belgium, the size of the coal field the vertical character of the veins, and their small thickness, render it impossible that there should be any very considerable extension of the business, at least if the supply is to endure for any protracted period. Already it is estimated that Belgium produces as much coal as France, two-thirds as much as Prussia, and one-eighth that of Great Britain, and that out of a coal field only 97 miles in length and 12 miles in breadth at its widest point, and in veins of from 30 inches to three feet thick. Belgium is already an importer of ore, and although it is quite evident that that it will be the seat of a vigorous and possibly increasing metal industry for years to come, it has no resources adequate for serious competition at the supply of the greatly increased quantities which the world will yet require.
Prussia has somewhat larger supply of coal than Belgium, and it is remarkably rich in quantity and quality of its iron ores; but it is scarcely possible that in the future she can do more than supply her own wants.—Upon England, then, so far as Europe is concerned, still rests the great burden of supplying the world with iron; it the supply is to come from Europe at all. It has been seen that already nearly one-half the total consumption of the world comes from within her borders. In 1866 she was able to furnish 9,665,018 tuns of iron ore, and only imported 56,589 tuns. A careful survey of the sources from which her ore is derived leads to the conclusion that in Wales the local supply is not adequate to the present consumption, and large quantities are transported thither from other parts of the Kingdom.
The natural limits of production have, therefore, been reached in Wales, although here will probably be a still further extension of the business in that region either with domestic or foreign ores, in consequence of the possession of enormous supplies of admirable coal available for the furnace without coking. The Staffordshire region, by common consent, has reached its culminating point, and a careful consideration of the local supply of carbonaceous ore in Scotland would seem to indicate that not much extension of the business is possible in that region except at much higher prices than now prevail. The main reliance in Scotland has heretofore been upon its black band iron ore, and the development of its iron trade has been coextensive with the exploration of that famous mineral, furnaces following everywhere in the wake of its discovery. The clay bands are in such small seams, and of such irregular character, that the business would soon languish had he greatly reduced if dependent upon them alone. The thick band, commonly called the 'airdrie,' is now substantially exhausted, and the reliance is on seams of no greater thickness than eight inches. Blackbands are notoriously irregular, and are not found uniform in thickness; it is required, for example the airdrie blackband occupies a mean thickness of the space allotted to it in the Lanarkshire coal field. A more notable example of caprice of blackbands is to be found in the slaty band, which occurs occasionally in patches of irregular thickness, sometimes six inches and sometimes six feet in thickness; but there is always something to mark its position, either a coal or iron stone. Indeed, all the iron stones in all portions of the coal field are erratic. They are persistent throughout in no field, yet it is a singular fact that we have in all the fields blackband iron stone. This extract from a paper of Ralph Moon, the Government mining inspector in Scotland, is made for the double purpose of showing how impossible it is that there should be any considerable increase in the annual product of Scotch iron unless foreign ores are brought to utilize the unlimited supplies of admirable coal which exist in that country; but with the further object of giving some information which may be of use in the development of the blackband iron ores which have been recently discovered in Schuylkill County, in Pennsylvania, the value of which to the country can hardly be exaggerated, if it should prove to be in quantity and quality equal to its British prototype.
There still remains upon the east coast of England the great Cleveland region, and upon its west coast the Cumberland or red hematite region. The latter is now yielding about 1,400,000 tons of ore per annum, taken from beds of irregular shape and formation, in or adjacent to the limestone. There are certainly no signs of exhaustion yet apparent in this wonderful district, but all analogy leads us to doubt the permanency of these irregular beds, formed in the pockets in the rocks, without any regular walls to indicate their continuity. Besides the extremely good quality of this ore and the value of the iron which it produces will always restrict its use to those better purposes for which a high price is paid, and naturally withdraws those mines from any competition in the supply of the great mass of iron required by the world for ordinary purposes. Not so, however, with the Cleveland region, where the ore exists in beds of from eight feet to fifteen feet in thickness, in the lias or volitic formation, extending over a tract of country forty miles in length and fifteen miles in width. This ore is lean and the quality of the iron inferior, but by the application of a high order of skill a good quality is produced sufficiently good for the ordinary purposes of commerce, and at a cost below that of any other locality in the world. The consequence has been that, since the erection of the first blast furnace in 1850, 125 furnaces have been erected, and 14 more are now in process of erection; 27 rolling-mills and a large number of iron ship building yards are in operation, and cities have grown up with a rapidity and to a size that would strike even a Western pioneer with surprise. The present production exceeds a million of tuns per annum, and it is difficult indeed to assign any limits to its future growth. But there is one limitation which applies to the whole question of the production of British iron, and that is her ability to supply coal on the scale of consumption already beyond 100,000,000 tuns per annum. This question has received the serious attention of the British Association for the Advancement of Science, and Mr. Gladstone, by one of those happy ellipses charatercistic of men of genius, has coupled the extinction of the national debt with the exhaustion of the supplies of fuel, evidently acting under the idea that an honest man ought to pay his debts while his capital lasts.
It is presumed, however, that there is still margin enough for the addition of the "Alabama claims" to the sum total of indebtedness, without seriously interfering with the means of payment which the coal fields afford. So far as the production of iron is concerned, and so long, at least, as any human being now in existence may have an interest in the question, I see no good reason to doubt why England should not maintain her position, as the source from which one-half the required amount will be obtained; but beyond this I do not think she can or will go, from the intrinsic difficulties of producing the required supply of materials and labor, without an enormous increase of cost. There will, therefore, remain a very large deficiency, which must be supplied from some other source, and that source can only be the United States of America, for in no other quarter of the globe are the supplies of ore and coal sufficiently large, or so related to each other geographically as to admit of its production, but merely within reasonable limits of costs, but on any terms whatever.
Our Iron Resources.
The position of the coal measures of the United States suggests the idea of a gigantic bowl filled with treasure, the outer rim of which skirts along the Atlantic to the Gulf of Mexico, and thence, returning by the plains which lie at the eastern base of the Rocky Mountains, passes by the great lakes to the place of beginning, on the borders of Pennsylvania and New York. The rim of this basin is filled with exhaustless stores of iron ore of every variety and of the best quality, while the natural channels of water communication, whether, on the north, east, south or west, the coal must cut this metalliferous rim, and, in its turn, the iron ores may be carried back to the coal, to be used in conjunction with the carboniferous ores, which are quite as abundant in the United States as they are in England, but hitherto have been left unwrought, in consequence of the cheaper rate of procuring the richer ores from the rim of the basin. Along the Atlantic slope, in the highland range from the borders of the Hudson River south to the State of Georgia, a distance of one thousand miles, is found the great magnetic range, traversing seven entire States in length and course.—Parallel with this in the great limestone valley which lies along the margin of the coal field, are the brown hematites, in such quantities at some points, especially in Virginia, Tennessee, and Alabama, as fairly to stagger the imagination. And, finally, in the coal basin is a stratum of red fossiliferous ore, beginning in comparatively thin seam in the State of New York, and terminating in the State of Alabama, in a bed 15 feet in thickness, over which the traveller may ride for more than 100 miles. Beneath this bed, but still above water level, are to be found the coal seams, exposed upon mountain sides, whose flanks are covered with magnificent timber, available either for mining purposes or the manufacture of charcoal. Proceeding westward, in Arkansas and Missouri, is reached that wonderful range of red oxide of iron, which, in mountains rising hundreds of feet above the surface, or in beds beneath the soil, culminates at Lake Superior in deposits of ore, which excite the wonder of all who see them. Returning thence to the Atlantic slope, in the Adirondacks of New York, is a vast undeveloped region, watered by rivers whose beds are of iron, and traversed by mountains whose foundations are laid upon the same material, and in and among the coal beds thereabouts are found immense deposits of carbonate and fossiliferous ores, which, by their proximity to the coal, have inaugurated the iron industry of our day. Upon these vast treasures the world may draw its supply for centuries to come, and with these the inquirer may rest contented. Without further question, for all the coal of the rest of the world might be deposited within this iron rim, and its square miles would not occupy one quarter of the coal area of the United States. With such vast possessions of raw material, we are naturally brought to the consideration of the elements which enter into the cost of producing iron in the United States as compared with the other iron-producing countries of the world.
Cost of Production.
And first, the distinction must be drawn between the cost determined by the quantity of labor required for the production of a ton of iron and the cost in money as determined by price paid for the labor. The former is the absolute and natural cost, and is the only just standard of comparison between nations, if national wealth is defined to be the amount of capital in existence, plus the amount of labor available for production. The other is the artificial cost, of which indeed, we may take advantage in our buying or selling, but forming no just standard of comparison in estimating the relative cost of production in different countries. There is a difference, familiar to the United States, between the cost of articles measured by gold or by currency, which makes it for the time, easy to understand the difference in cost measured by money or by day's labor.
England, having the largest and most accessible stores of coal and iron ore, can produce a tun of iron with less labor than any other European nation; and hence it will be most profitable to institute the comparison of cost measured by labor, first, with Great Britain. In the Cleveland region, which is most favorably situated for the cheap production of iron, the cost of producing a tun of pig iron is about 40 shillings, which, at the average rate of wages paid around the blast furnace, is equivalent to 11 days' labor—that is to say, the labor of 11 men for one day. It is possible that in one or two works this may be reduced to 10 days, but in others it rises to 12 or 13. In the United States, the average cost of producing a tun of pig iron, as yet extensively developed, is on the Lehigh River in the State of Pennsylvania, where, taking coal and ore at their actual cost of mining, pig iron is produced at an average cost of $24 per tun, which represents, at the present rate of wages, 12 days' labor at 13 days. But, when the iron business is established along the great valley which extends from Virginia to Alabama, the labor of bringing the coal and ore together will be considerably less than on the Lehigh River, and it is safe to say that the labor required will be greatly reduced quantity, if dependent upon them alone. The thick band, commonly called the 'airdrie,' is now substantially exhausted, and the reliance is on seams of no greater thickness than eight inches. Blackbands are notoriously irregular, and are not found uniform in thickness; it is required, for example the airdrie blackband occupies a mean thickness of the space allotted to it in the Lanarkshire coal field. A more notable example of caprice of blackbands is to be found in the slaty band, which occurs occasionally in patches of irregular thickness, sometimes six inches and sometimes six feet in thickness; but there is always something to mark its position, either a coal or iron stone. Indeed, all the iron stones in all portions of the coal field are erratic. They are persistent throughout in no field, yet it is a singular fact that we have in all the fields blackband iron stone. This extract from a paper of Ralph Moon, the Government mining inspector in Scotland, is made for the double purpose of showing how impossible it is that there should be any considerable increase in the annual product of Scotch iron unless foreign ores are brought to utilize the unlimited supplies of admirable coal which exist in that country; but with the further object of giving some information which may be of use in the development of the blackband iron ores which have been recently discovered in Schuylkill County, in Pennsylvania, the value of which to the country can hardly be exaggerated, if it should prove to be in quantity and quality equal to its British prototype.
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