THE PITTSBURG DISPATCH.

SATURDAY, JANUARY 17, 1891.

A RESERVOIR ACTION

Not Only a Fact, but Such Action Can Be Much Augmented by Art.

ANY NUMBER OF EXAMPLES

From the Smallest Brooklet to the Mighty Father of Waters.

AN ILLUSTRATION FROM ARIZONA,

Which Fortunately Came Under the Observation of an Engineer.

ONE SUGGESTION FOR THE FARMERS

PAPER NO. 8.

The proposal to utilize and augment by art the reservoir action of water courses, and thus to mitigate flood conditions, and at the same time develop inland navigation to the fullest possible extent, was expected to be regarded as a recombination and extension to larger uses of well-established principles of hydraulies.

It was of course expected and desired that engineers would criticize the devices suggested to be employed; and analyze the relations of the flood volumes to the reservoir volumes practicable to obtain in the river channels; in other words, the efficiency of

Most valuable facts not generally known -data not accessible to the most laborious research-would be brought out in this way, and probably in no other.

It was not, however, anticipated that any engineer, much more any hydraulician, would question the fact of reservoir action in water courses, or regard it as a new idea or discovery. That this has occurred seems to justify a more technical treatment of the subject than was originally contemplated.

Reservoir action is a fact; and it is a fact that such action can be greatly and most beneficially augmented by art. How much, in what ratios to flood volumes, with what good results, are questions of fact for practical men to determine by surveys, observations and calculations. Criticism on these lines is practical and must be beneficial to the public interest.

Floods Make Reservoirs.

No observant person can deny that the dimensions of a water course are mainly dependent upon flood conditions. The effort of streams to enlarge their channels to accommodate the extreme flood wave, is a fact easily recognized. Everyone has seen a tiny rivulet, at morn traversing the surface of a gentle sloping meadow, at noon become a raging torrent by a cloudburst or unprecedested rainfall, and next day, shriveled to its original proportions, trickle along the bottom of a deep cully, yards in width and depth, sunk in a few hours by the torrent of such abort duration. A small stream is taken for illustration, because relatively great changes in the bed of such streams are quite common. Large streams and rivers behave similarly under similar conditions, as is instanced in the constant changes in the bed of the Mississippi, and most strikingly in the recent great changes in the San Pedro river

Unusual natural phenomena seldom occur under the immediate observation of cientific men, as fortunately happened in this case. A distinguished engineer, who was on the ground, related to the writer what is here put down from memory. On the night of the occurrence Dr. P. and his related to the writer party spread their blankets in the chapparal about a quarter of a mile from the town of Dudleyville, and as far from the San Pedro. The town is built against the foothills at one side of a wide flat, on the opposite side of which flowed the river. During the night the party were compelled to move back three times; and when morning dawned were in the town, the entire flat having been washed away.
All night und a part of the next day the

banks fell with the noise of thunder, melted away in the torrent, and were gone. A tract several hundred yards wide, by several miles long, was washed out to an average depth of 14 leet, millions of tons being removed in 24 hours.

An Arizona Illustration.

This occurrence well illustrates the extent to which a single unexampled flood will alter and enlarge a water course, as has been done in Arizona this year by the unprece-dented raintall. The natural action of water on a river bed is to establish it with the slope at which erosion ceases; and extreme flood conditions, if repeated at longer or shorter intervals, tend not only to odable, and the length considerable, the reservoir capacity finally attained is suffior more than sufficient, to accommodate the entire volume of the greatest floods.

The cyclic uncomprehended natural smaller tributaries are short and sharp, ex- silting up of the rivers.

The cyclic uncomprehended natural

MONONGAHELA AT NEW GENEVA, PA ALLEGHENY , AT FREEPORT PA OHIO AT PITTSBURGH CUMBERLAND AT NASHVILLE TENNESSE, AT CHATTANOUGA TENN OHIOSAT PADUCAH . KY. MISSISSIPPI AT ST. LOUIS. CAIRO ILL. MEMPHISTENN. VICKSBURGH MISS. NEW ORLEANS

Ohio, the Yosemite, and other well-known streams. The effect of the length of the water course as related to the duration of the flood is well illustrated by comparison of the Niagara with the Mississippi. The Ningara is a very short river, and its maximum discharge is practically continuous—therefore its reservoir volume is trifling relatively to its discharge. The Mississippi, on the contrary, has sufficient reservoir action to moderate almost to obliteration at Carrolton the extrema flood oscillations Cairo. The Columbia is a good example of reservoir action, as is shown by its extremely

A river of little original fall has deficient power of erosion, generally meanders through a marsh, and its reservoir action is naught. General Humphrey's Testimony.

Such rivers as the Allegheny, the Connecticut, the Potomac, and in fact most rivers, exemplify the normal relation, in which the river, at high flood, fills or nearly fills its banks, and there is neither great excess of channel capacity nor extensive or destructive floods. In any such stream the portion T divided by D of the flood volume, would if congealed, be very nearly or entirely contained within and fill the water course; and where T divided by D equals 1, or the flood duration is equal to the time of traverse, the entire flood volume deepen the channel, but also to enlarge it latterally; so that if the original fall be great enough, the banks and bed sufficiently and many of its tributaries. The accompanying diagrams show the effect of channel reservoir action in a very interest-ing manuer. The flood oscillations in the

retard the reservoir development as in the to drive mills and electric light plants rest that the reservoir water bearing strata suggest considerably augmented. Flowing artesian wells, especially if large enough to use profitably for power, for water supp extensive irrigation, are very profitable to their owners; nearly as much so, in fact, as oil or gas wells, for they do not play out. It is reasonably to be supposed that were attention to be directed to such wells as attention to be directed to such wells as sources of profit, geologists and drillers would explore for them, the subterranean reservoirs would be tapped and drained, their capacity developed to the utmost, without expense to the Government, and what General Greely calls the perennial flow of the rivers, or flow from springs, etc., very considerably increased. General Greely estimates the present perennial flow of the control of the contr estimates the present perennial flow of the Ohio to be three-fifths of a cubic mile per month or 7.2 cubic miles per year. If it were possible, by opening springs and flowing wells, to double the perennial flow the extreme flood conditions would be mitigated and the low water discharge im

proved to a considerable extent, and that with profit to the citizens as individuals and without expense to them collectively. What the Farmers Can Do. There are about 92,000,000 acres, or 143, 750 square miles of farm lands in the Ohio Valley. It every farmer would plow his land in deep furrows, at right angles wit the slope, as is practiced on the hill-side farms in New England, the flood outfall would be very materially diminished, pos-sibly to the amout of 41/2 cubic miles. This would not only mitigate flood conditions, but also prevent denudation of the soil, and

AT THE PISTOL'S POINT.

DARING AND UNIQUE ROBBERY IN KANSAS CITY HOUSE.

hree Women Relieved of Diamonds and Jewelry Worth \$1,300-Strangers Who Suddenly Proved to Be Desperadoes-

KANSAS CITY, Mo., Jan. 16 .- A daring, unique and successful robbery was perpetrated at a house kept by Mrs. Mollie Gore on McGee street, in the very heart of the city, about 2 o'clock this morning. Three men at the muzzles of revolvers robbed Mrs. Gore and two girls, who were her companions of \$1,300 worth of diamonds and jewelry, and made good their escape. The unique feature lies in the fact that the robbery was the ending of a little theater party. Last night two men whom Mrs. Gore described, but does not know, and who claimed to be from Denver, went to her house and invited her and one of the girls to go to the theater to see the "Sea Kin On the way home after the show a third man was met at Twelfth and Walnut streets, with whom the two men with the wome seemed well acquainted. He was asked t accompany the party to Mrs. Gere's house, and did so. The time until 2 o'clock was spent by the whole party drinking and carousing. Just as the clock struck 2, all three men suddenly drew their revolvers and pointed them at Mrs. Gore and the two

| JULY | AUG | SEPT | oct | NOV. | DEC | JAN. | Cre T | MAR | T | MAY | JUNE | | | | - | NOV. | DEC | | | | 181 | | |
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| dans | | | | | | Oscie | LATIONS | or | THE | CPLUMBIA | RIVER | AT | UMATIL | A | OREGON. | | 1 | | | | | THAT | June |
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forces, which raise and lower continents and induce climatic changes, may affect the normal reservoir function of rivers, as they affect all natural relations. These are be youd our ken. But the normal relations, such as ordinarily prevail, may be expressed

in the following termula: $R = \left(\frac{T}{D}V\right)\left(\frac{P}{P}e\right)$

R. Reservoir volume of channel. T. Time of traverse through the channel of particle of water.

D. Duration of flood.

V. Volume of flood.

. Total original fall, or fall of the origins uk from the source to the ou f. Full necessary to erode the material of the

e. A factor determined by the character of e. A factor determined by the character of its material of the bed.

F and are expressed as tangents.

Evidently expressed as tangents, and or oam, much less in clay and mark, still less in thates and least of all in rock.

The above may be expressed in common

language as follows: The normal reservoir clume of a water course is to the total floo volume as the time of traverse of a particle water through the channel is to the dura tion of the flood; for instance, if it takes one day for a particle of water to travers the channel, and the flood duration is three days, then the reservoir volume is one-third the flood volume; but this ratio is modified by the original fall of the water course, and by the erodable qualities of its materials.

Controlling Conditions. A few examples will well illustrate the principles. Great original fail, together with erodable material, results in reservoir capacity more than sufficient to contain the greatest floods, as in the Colorado and other streams in our great Western plateaus, in s tone country; the water courses in the shales of Western New York; and the deep guilies so frequent in clay and mari coun-tries. The effect of non-erodable strata is to

the larger streams the flood duration is pro-tracted, and the rise and fall are gradual; a further operation of the reservoir action ob-literates the impression of individual floods from the tributaries; while at New Orleans the discharge becomes "a simple drain from a lake," as General Humphreys aptly ex-presses it, the river having a high stage and a low stage, neither exhibiting great irregu-larities in height or discharge from day to day or from week to week. It must be borne in mind that the fall has

a great effect on the reservoir action. The rapidly-draining flood-producing tributaries have excessive tall, and pour out their flood waters in immense waves, which, because of the excessive fall, are not checked and tempered by the reservoir effect of their channels. But this very excess of fall at the same time that it causes sud-den and great floods, has created in these den and great floods, has created in these tributaries enormous reservoir capacity which man can utilize by art, and so control the excesses of nature with the agencies made possible by those very excesses. We have but to fully develop the great channel reservoirs of the tributaries, to make the Mississippi "a mere drain from a lake," not only at Carrolton, but at St. Louis and only at Carrolton, but at St. Louis and

This is true in a commercial no less than in a physical sense. The tributaries (which would be great rivers in other lands) pierce would be great rivers in other lands) pierce
the great storage warehouses of nature; and
their improvement will bring to the people
of the lower valley not alone safety from
destructive floods, but cheap coal, cheap
iron and steel, cheap commodities of all
kinds, convenient markets for their prodnets and a beneficent commerce, profitable
because direct and natural.

because direct and natural. Some Other Natural Reservoirs The recent extraordinary strikes of artesian wells in Iowa, notably those at Belle Plains, where artesian wells are used

ankle-deep in water, up a steep hillside properly plowed, as he may do on any New England farm, and he will be convinced that this is a "trivial thing" of such vast proportions as to be of national concern. The addition of two inches to the amount of water retained by the soil of the farm lan in the Ohio Valley is equal to the reservoir effect of a basin 4,600 square miles in area

READ F. Marion Crawford's new story. THE WITCH OF PRAGUE." Openi chapters in TO-MORROW'S DISPATCH,

REV. J. T. RILEY FOUND GUILTY.

nother Methodist Preacher Convicted Imprudence and Unministerial Conduct, The Riley trial ended yesterday after a ten days' session. The Methodist preacher was found guilty of imprudence and unministerial conduct. The finding will be brought up before the conference at its next meeting. The charges against him are as follows: The charges against him are as lollows:

"First—Imprudent and unministerial conduct, as revealed in the practice of improper familiarities with women other than his wife.

"Second—Immerality, based upon the alleged fact that Mr. Kiley's conduct with Mrs. Minnick contributed to the strained relations which culminated in Mr. and Mrs. Minnick's searching.

MOTHERS, do not be without Shiloh's Cure it your house. It will cure croup and whooping cough. Soid by Jos. Fleming & Son, 412 Market at.

TRY O'Keefe's "O K" shoe blacking.

stant death. The frightened women obeyed, and gave the taller one of the party a fine gent's gold watch, and a lady's gold watch with three diamonds mounted in the case. The robbers theu relieved Mrs. Gore of two diamond eardrops, valued at \$500, took the rings off the fingers of herself and girls, one of which was a solitaire diamond, another with two dismonds and an emerald, and still another with pearl and ruby setting. The men then left the house and quickly disappeared. The police have no clew other than the description given by Mrs. Gore. The latter was recently made delegated and in a \$20,000. detendant in a \$20,000 damage suit brought by Mrs. Charles Purvis, the wife of a wellknown sporting man, who charged Mrs. Gore with alienating her husband's affec-

F. MARION CRAWFORD'S first news

THE APPROPRIATION TOO SMALL

Site for the Allegheny Government Build ing Will Cost About \$200,000. Inspector Clus is still examining sites for the new Government building in Allegheny. The two sites which he favors most are the Central Hotel property and the Rhoades Hotel, corner of West Diamond street. As each of these sites will cost about \$200,000, it will nearly consume the present appropriation of \$250,000.

As the postoffice in Allegheny carps \$40,000 a year, which is the interest at 4 per cent on \$1,000,000, it is thought the Government could at least spend \$500,000 on a new building.

The year 1890 in the iron and steel trades has fully answered general expectations. The financial crisis unfortunately disturbed ousiness during the last quarter of the year, and it was, therefore, with a very depreciated and weak market the trades entered in 1891. Manufacturers are of the opinion that the extreme depression must necessarily bring an amelioration, which will take place just as soon as confidence is restored. The present condition of the market is by no means favorable to the establishment of new exterprises, but the hope is expressed that matters will right themselves, and that the close of the year 1891 will be as brilliant

The production of finished iron and steel in the Pittsburg district last year was the largest in the history of this section, being estimated at over 2,000,000 net tons. The production of pig iron of the entire country for the year 1890 was also the heaviest in the history of the industry of this country, amounting to 10,183,016 net tons for the year. This amount is 1,666,937 net tons greater than 1889, which year was the year of the greatest production prior to 1890.

Largest Producer in the World. The year will pass into history as one of enormous production, placing, as it does for the first time, the United States in the lead of the iron producing nations of the world, and, as the country consumes not only all the iron it produces, but also large quantitles of iron imported, it is also the largest iron commission and in the largest iron commission.

ties of iron imported, it is also the largest iron consuming nation in the world.

The most important topic of discussion among local iron men and workers is the banking of nearly all the blast furnaces in the Mahoning and Shenango valleys during the latter half of last week, owing to their being refused a reduction in freight rates and being granted only a partial reduction in the selling price of coke. This action was decided upon at a meeting held at Youngstown on December 31 last, and will throw from 8,000 to 10,000 men idle, as well as to seriously cripple the business of the railseriously cripple the business of the rail-roads, as the traffic from the furnaces proves a large factor in the business of all the

000 to 50,000 tons of Southern iron were received in the valleys, thus throwing on the market an equal amount of local iron, and that, in order to dispose of this surplus iron, makers are obliged to cut market prices, authat in many cases, where attempts to sell failed, the iron was stored in the furnace yards, where it still lies.

Aided by the Railroads. It is only with the co-operation of Southpanies are enabled to ship their product into the valleys. They virtually enter into partnership with the furnacemen, inas-nuch as they agree to fix the freight rates on pig iron according to the selling price o on pig 17th according to the selling price of iron, and further, in the case of contracts made for future delivery, they agree to pro-tect the furnacemen from loss in case of a decline in values, by further reductions in the freight tariff, even if in affording such protection the sliding scale is abrogated. A comparison of the freight schedules on like material as charged by Southern railroads. and those Northern roads leading into the valleys, will show without much elucida-tion the great disadvantages the valley producers are working under. Iron is hauled from Birmingham, Ala., to

Coungstown, a distance of about 800 miles, for \$4 10 per ton, while the rate charged from Youngstown to Pittsburg, a distance of 65 miles, 15 80 cents per ton. In the first of 65 miles, 18 80 cents per ton. In the first instance the rate is equivalent to one-half cent per ton per mile, and in the latter 1.23 cents per ton per mile. In the matter of raw material rates the disadvantages are raw material rates the disadvantages are almost as great. Coke is hauled from the Pocahontas field in the Virginias to Chattanooga, a distance of 424 miles, for exactly the same rate per ton as is charged by Northern roads for hauling coke from the Connelisville regions into the valleys, a distance of 130 miles.

It is true that the Southern product does not approach Northern modelises in the same rate of the s

approach Northers-made iron in the analytical properties, when considered for making merchant bar iron, but it is exten-sively used as a mixture with Northern iron, its quality permitting of a run of 25 per cent, the result being a good grade of mer-

Advantages Over the North The South enjoys great advantages in the manufacture of pig iron over the North. It is notable that pig iron can be made very much cheaper in Georgia, Alabama and Tenuessee than in Pennsylvania, or in any other part of the country. The conditions of the propinquity of the iron ore, coking coal and limestone to each other make an ideal condition, unequaled anywhere in the world outside of the famous Cleveland dis-trict in England. It is through the existence of these very favorable conditions, coupled with the cheapness of labor in the Southern States, that enables that section to produce so cheaply and come in competition

with the Northern makers.
Furnacemen in the valleys hold that the railroads, in giving the advantages they do to secure Southern shipments, lose the three tons they would get by protecting the trades in the valleys, viz.: Coke and limestone into the valley and pig iron out; and further that in consideration of the enormous amount paid in the way of freights by Valley furnacemen, amounting in some months to \$250,000, they should be protected from the inroads of Southern competition by making the rate on iron from the South commensurate with that on iron being

shipped out of the valley.

During the last few years there has been no increase in the number of furnaces erected in the valley, but the capacity has been inin the valley, but the capacity has been increased by the introduction of more modern blast furnace appliances, it, in some cases, amounting to 50 per cent. It is claimed that a further reduction in coke to \$1.50 per ton f. o. b. cars at ovens, a reduction of 25 cents per ton in the freight rate for coke into the valley, and a reduction of freight on iron to Cleveland and Pittsburg, would enable the furnaces to continue.

Producers are Standing Firm.

Producers are Standing Firm.

The late reduction in the price of coke, it

LARGEST ON RECORD,

A Notable Year in Iron and Steel Production in the Pittsburg District

HAS JUST BEEN CLOSED.

All Previous Efforts Eclipsed by the Enormous Output of 1890.

MANY CHANGES BACK TO COAL.

Valley Furnaces Forced to Shut Down by Southern Competition.

AN ENCOURAGING PROSPECT AHEAD

main idle.

We are led to believe, and think we feel safe in uttering the prediction, that the shutdown will happily be only of short duration. The Change to Coal.

The changing of puddling furnaces back to coal is progressing slowly. There are yet 12 mills where natural gas is wholly or partially used and 24 have been changed back to coal. This statement only has reference to Allegheny county, and does not include the steel works, though many of them have returned to coal. The puddlers at Zug & Co.'s mill, after three weeks working three heats per turn, are now working five. Brown & Co. are now working their new three-high train of muck rolls placed in the works during the holidays by the Lewis Foundry and The Change to Coal. ing the holidays by the Lewis Foundry and Machine Company. The new puddling furnace recently added makes a total of 34 that are all working, and the old mill is now of the most modern design.

At J. Painter Sons & Co.'s mill 40 puddling furnaces. as the opening was bad.

dling furnaces are now working on coal and 27 on gas. There is also an occasional short-27 on gas. There is also an occasional shortage of gas at these works in the finishing department. When this occurs the boiler supply is reduced enough to allow a suficiency in the heating furnaces. At the Millvale mill the plant is closed down indefinitely on account of a demand for an advance in wages made by some of the employes. At the works of the Braddock Wire Nail Company the wire departments have resumed work, after making the annual repairs. It is likely that the men in the wire nail department now out on a strike, by reason of the dismissal of two nailers for their supposed connection with the organization of the Amalgamated Association of Iron and Steel Workers' lodge at that place, will return to work this week, if the reinstatement of the men takes place as the company promises.

Suffering From Gas Shortage.

Suffering From Gas Shortage.

At Park Brothers & Co.'s Black Diamond Steel Works they are suffering greatly by the shortage of gas. Part of last week their crucible departments were working only half capacity, and five out of the seven open hearth lurnaces were idle. Wood was being consumed under the boilers, and not enough steam could be raised to run the hammer department full. It is rumored that this firm very recently sank \$85,000 in their endeavors to secure a sufficient supply of gas to run their mill.

Laughlin & Co. have banked one of their three blast surnaces, located at Laughlin station, thus throwing the men out of employment. This action is due to the very large stocks of iron they have on hand and the abnormal depression in the prices of pig iron, in the face of which they decided to shut down one of their furnaces. It was rumored some time ago that the firm contemplated the erection of a fourth furnace at this plant. At Carnerie, Phipps & Co.'s a large factor in the business of all the lines entering the valleys.

Much interest has been aroused over the entire country as regards the situation of the pig iron producers in the Mahoning and Shenango valleys, due to intimations circulated that the furnaces, unless they could effect some reduction in the cost of raw material, would be compelled to close down. The primary cause of the trouble, as stated by furnacemen in those sections, is the very large quantities of Southern iron that is finding its way into the hands of the valley consumers. It is asserted that during the consumers are consumers. It is asserted that during the consumers. It is asserted that during the consumers are consumers. It is asserted that during the consumers. It is asserted that during the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that during the consumers are consumers as the consumers are consumers. It is asserted that consumers are consumers are consumers as the consumers are sull in a condition of gas shortage. The puddlers in both mills are making but two and three heats per turn, instead of five, and the finishing departments are also interrupted in their work. At the lower mill a change of hours was tried, in order to secure more work. There is much dissatis-faction expressed by the men at the great loss of time. It is rumored that the Upper mill is to be removed to the vacant tract of land adjoining the Homestead mill.

The Allegheny Bessemer Steel Works is

closed down for general repairs. At the Homestead mill of Carnegie, Phipps & Co., which is probably the only mill in the country working on the sliding scale basis, the scale of wages for the ensuing three months has been settled. The scale is based on an average of \$27 per ton for 4x4 steel billets, and is a reduction of a little more than 9 per cent from the scale of the last three months. This system has been in operation at these works for one and one-half years, and will remain in force until July, 1892. The results have been satisfactory, both to the workers and owners. The scale is arranged on the average selling price of 4x4 steel billets for three months and operates down to a minimum price of

Some Big Orders and Shipir Thomas Carlin & Sons, of Allegheny, re-cently shipped one of their latest improved double nine-foot dry pans for a chemical works; also, an eight-foot ore grinding pan and a nine-loot dry pan for fire-brick; also, a five-foot pan to a brass works for grinding brass ashes. From their engine departm they shipped a 150 horse-power and a 100 horse-power engine and a number of sm engines; also, an improved 60-foot derrick to Columbus, O., and a 40-foot derrick to Columbus, O., and a 40-foot derrick to Cuba, the latter to be used in hoisting ore on docks. They also shipped two centrifugal pumps, one eight-inch and one tour-inch; three hoisting engines, with boilers, and a lot of contractors' tools to North Carolins.

McGill & Co. are constructing in their works two 20-ton Hemphill hydraulic cranes, to be used in the Bessemer department of the Edgar Thomson Steel Works in connection with the new 18-ton converters. connection with the new 18-ton converters This company is also constructing a ten-ton crane for the Pennsylvania Steel Company's Sparrow Point (Md.) plant, and six hydraulic cylinders, to be used at the railsmill of these works. The Pittsburg Reduction Company produced 9,132 pounds of Company produced 9,132 pounds of aluminum during the month of December, with the works idle six days during the

month. The largest menth's production was during November, when it amounted to 10,688 pounds.
The different foundries in and about the city report trade very good, though prices are unsatisfactory. At the Anchor Foundry and Machine Company they have been working double turn for some time on a large number of orders for rolling mill and blast furnace machinery. At the works of Sterritt & Thomas they Sterritt & Thomas they are very busy in Sterritt & Thomas they are very busy in their loundry on heavy and medium weight castings. At A. Speer & Son's works they are running full in all departments, and their foundry is busy on special castings. At McIntosh, Hemphill & Co.'s they continue very busy; such is also the case at the Porter and Douthett Company, Scaife Foundry and Machine Company, L. M. Morris, A. Garrison, Robinson, Rea & Co., and, in fact, in all the iron foundries in this vicinity. this vicinity.

Improvements and Addition Improvements and Additions.

The Duquesue Tube Company is having added another lap-weld furnace. The Pittsburg Wire Company has been organized with a capital of \$150,000 to erect a works at Braddock for the manufacture of copper wire. The Canonsburg Iron and Steel Company will greatly enlarge its present capacity of 4,000 tons of sheet Iron and ateel for stamping and galvanizing purposes. for stamping and galvanizing purposes. The new plant of Hussey, Binns & Co., at Charleroi, is so far completed that some of the furnaces were lighted last week. The company is now engaged in moving the ma-chinery from their old works in this city. At the Edgar Thomson Works several

is said, was simply an official ratification of the actual price that had existed for some time previous; therefore it did not affect the situation. Up to the present writing there is not the least indication of a break in the ranks of the producers, who have shut down, and there is no doubt they will remain firm, as their action was not taken hastily, but on due deliberation and a thorough discussion of the entire matter.

They think they have been giving the railroads a large share of their profits, in order to enable them to pay dividends on watered stock, and that the coke manufacturers have been growing wealthy, due to the steady demand for their product from the blast furnaces of both valleys. They are in excellent shape, financially, to stand a long shut-down, and the great inconvenience and suffering will fall on the thousands of employes of the furnaces, who are thrown out of work in mid-winter. However, it is not likely that operators will stand idly by and witness scenes of actual suffering by those in their employ.

It is stated on good authority that a further reduction will be made in the price of coke, though with the railroads the matter is still open, as is shown from the fact that another conference will shortly be held. The question of resumption rests wholly with the railroads, whether they are willing to receive a fair rate for the pig iron traffic or prefer to let their cars and motive power remain idle.

We are led to believe, and think we feel

and heavier engine will replace the engine now operating the smoothing rolls. Larger blooms than have ever been rolled before will then be put through, and rails heavier than 85 pounds to the yard can be made.

A Bright Prospect Ahead. The outlook for the steady operation of all the mills making iron and steel in this vithe mills making iron and steel in this vi-cinity for the year 1891, which is a very im-portant question to the thousands employed at manual labor in the mills, as well as to the small merchants, who are in a very great degree dependent on these workmen for their trade, is very bright and encouragfor their trade, is very bright and encouraging. As a general rule, fluctuations in the
value of iron and steel products do not affect the wages of the skilled and unkskilled
workmen. To them it is more a question of
activity in trade, a steady demand and conrequent steady work.

The united opinion of local manufacturers
is that the year just ushered in will surpass

any previous year in the history of the country, in the point of production and consumption of iron and steel, and which will insure uninterrupted employment to mill workmen, and increased prosperity for this city. C. K.

MORE THAN SATISFIED.

AN FXCITING FXCURSION AFTER SOME NEGRO LABORERS.

The Lively Experience of a Passenger Agent in North Carolina-Driven From Town as Soon as His Object Became Known to Indignant Whites.

PRECIAL TELEGRAM TO THE DISPATCH. BIRMINGHAM, ALA., Jan. 16.-Charles ones, passenger agent of the Kansas City, Memphis and Birmingham Railroad, has just returned from North Carolina, where he went to secure 500 negro laborers for planters in Arkansas. He returned without the negroes, and says he is glad to get back with his life. "If the Arkansas planters want negro laborers from North Carolina they may go after them, I'm not going any more," said Mr. Jones. When asked to tell his experience the passenger agent shud-

"I came near being mobbed three times and had to slip out of several places at night and on foot. At Enfield, N. C., as soon as the white people learned I was in the town and my business, they called a meetingfof the Town Council. The Council at once passed an ordinance that any man who came there to entice negro laborers dangerous character and given one hour to leave town, never to return. If he remains over the alloted time he will be fined \$50 and then imprisoned, if he still persists in remaining on any pretext. Well, sir, when the Town Marshal came to notify me of the new ordinance, which went into effect at once, there were fully 100 white men right behind him, and most of them looked like they wanted to lynch me on the spot. They would not listen to a word I had to say. I must leave within an hour. The Marshal finally consented that I might remain until the next train, but he detailed man to watch me and see that I did not talk

to any negroes.

"At another little town over there they did not take time to call the Council together to pass a law. A committee waited on me five minutes after I got off the train and gave me 30 minutes to leave town. I had to leave that place on foot and walk ten miles to the next station. At a small station where I stopped one day the crowd caught on to me while I was talking to the depot agent, and they made a rush for me. Now you git, an' you want to be mi'ty quick about it too, said the leader; and again I had to walk out of town. "Twenty thousand negroes were taken

out of North Carolina last year and sent to the big Mississippi river plantations, but some of the railroad passenger agents who go over there after negroes this year are go-ing to get lynched if they don't mind. I ion't want any more of this negro business in mine. I'll go out in the mountains and ticket some Mormon converts to Utah. You see there are not enough negroes left over there to run the plantations, and the white men know their tenants would not have left except for the passenger and labor agents. They are laying for agents now, I tell you, and they'll make it hot for some of them."

A NEW YORK business man has entire lost his memory. In THE DISPATCH to-morrow Murray will give the story in detail.

A COMEDIAN PUNCHED.

The Manager of the Company Knocks Out Actor Hampto NEW YORK, Jan. 16 .- Alfred Hampton

the comedian, who is a shining light in the "City Directory," carried a bloody nose on the stage during the performance at the Lee Avenue Academy in Brooklyn a few nights ago. The attaches of the theater said that the manager of the show had punched Mr. Hampton, and it got into print that Ariel N. Barney was the assailant. But Mr. Barney was in Baltimore at the time, and he has since vigorously teletime, and he has since vigorously tele-graphed a denial. This led to an explana-tion, and it has been revealed to the surprise of the theatrical fraternity in town, that Mr. Hampton's injuries were received at the hands of John H. Russel, manager and owner of the "City Directory" and several other farcical shows. Hampton, it appears, had recently signed to join another company.

ompany. News of this came to Russel's ears, and he visited Hampton's dressing room. There he reproached the actor with base ingratihe reproached the actor with onse ingrat-tude, qualifying his regret by asserting that it was not because Hampton was talented; it was only because Russell had ordered lithographs of him and would have to pay for them. An eye witness says that Russeli then struck Hampton several times, and also grabbed a flask which was in the room. Hampton is slender and not strong, while Russell is portly and always in training. Naturally the comedian suffered considerably. He will leave the troupe, and his friends say he will see Russell. riends say he will sue Russell.

To Be Non-Partisan

VANDALIA, ILL., Jan. 16 .- A petition is seing circulated here, and is being numerously signed by citizens, whereby the peti-tioners pledge themselves to eschew politics at the coming city election and to support a citizens' ticket.

Major General O. O. Howard Imparts Some Decidedly Interesting

IDEAS TO YOUNG CITIZENS.

The Imperative Necessity of a Proper Self-Preservation.

WITHOUT SOME SORT OF A FORCE

Society Soon Becomes a Prey to Criminal Conspiracies.

NOT A DISGRACE TO BE A SOLDIER

The ethics of Rev. Dr. Wayland, of the Brown University, R. I., as put forth in his "Moral Science," became, before the Rebellion, the accepted standard throughout New England. His proverbs were used, omitting here and there a chapter, as Bible truth, even at the Military Academy. His teachings in the chapters omitted at West Point were sgainst war and any preparations for war. Charles Sumner when a young man composed his great oration on "The Grandeur of Nations." It was a superb array of sentiments adverse to armies and the use of armies. And I hesitate not to say that at that time there was a sentiment nearly universal against war of any kind, offensive or defensive; against any sort of standing army and other forcible means of public defense.

The prophecy that there would come a time when the lion and the lamb would lie down together, was taken as if a command; and the prediction that nations would learn war no more, a state, like the millennum, to be wished and prayed for, was imposed upon man and society as a sacred duty to be at once performed. The ethical teaching, arising from the Quaker interpretation of our Lord's practical precepts, necessarily created a deep-scated prejudice against our regular pays and our standing arms. These navy and our standing army. There was doubtless in earlier times, too, a strong feel-ing against the British regulars during both of our wars with Great Britain. The large of our wars with Great Britain. The large proportion of the mercenaries that made up the invading forces, by their cruel and careless conduct, added to this antipathy. And, back of all that, there was the well recognized fact in the time of George the Third, that the British common soldier ranked so low in the scale of humanity that it was a disgrace for a civilian to associate with him. This, it may be, has had a potent influence upon all families whose ancestors came hither from England.

The Sentiment of New England.

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The immigrants from other nations also The immigrants from other nations also brought equally strong prejudices against the iorces, often made up of conscripts, that were wielded against their fathers by autocratic power. At any rate, the instant a war was over and armed men could be dispensed with, our New England people have hurried them out of sight, and the old arguments have come back to beget again the same old conditions of weakness and unpreparedness even for a reasonable Govern-

paredness even for a reasonable Govern-mental protection by land and by sea.

It is the part of wisdom to notice how quickly a "Fort Sumter" affair, threatening the life of the nation, reversed the faulty, prejudiced common sentiment. The author of the "Grandeur of Nations" added grana "Grandone at deur to his own nation by fostering the war power; and urging the people to sustain the army which was mainly filled with those who a few months before were themselves reckoned as non-combatants.

How the world rejoiced when General Gordon, of England, stepped forth, like Joshua of old, to lead relieving forces and save a people from a cruel late. puerile the sentiment that withheld from him the needed army. Doubtless our Heavenly Father could have interposed His strong hand, stayed the Mahdi with his terrible hosts, and given to his servant, Gorlon, a miraculous victory; but, in fact, He did not vouchsate so to do. The delays of a sufficient force to reach Khartoum, beat back the Mahdi, and rescue the noble Gor-don with his helpless dependents, have set back the index on the dial-plate of civilization at least a quarter of a century. O, for the proper preparation! The need how plain. A well-appointed and well-complain. A well-appointed and wen-com-manded army, our God would, I believe, have blessed and helped in the time of Gor-lawe blessed and helped in the time of Gormartyrdom.

A Proper Public Sentiment. Public sentiment, spreading from East to West, which of course ought to be fostered in the interest of peace, when it takes such radical freaks against the army and the public defense as to bring discredit on the soldier's uniform, carries with it a very decided opposition to all military tendencies in the education of youth. On reflection, however, it is believed that, excepting a few extremists, the majority of our sellow citizens recognize the right and imperative necessity of a proper self-preservation, even to the extent of exercising a governmental power over the taking of human life.

Certainly a genuine patriotism implies strong, hard virtues, which are limited only by life itself, to hold in a firm grasp all anorchy, whether it be secret, insidious, plotting and undermining, or already organized and openly clutching at the throat of the Republic. Arbitration, pushed with all needed patience and helped by exercising all the spiritual and mental force of Chris tian men, will now be given the fore-front against any and every impending threat of war; but spiritual and moral force always require an essential body-force to gain re-

weak governments, except where they are used for policy's sake, are even to-day laughed at and ignored by the great powers of Europe. To have no army is akin to having no policemen, no fire department, no safes, no locked gates or doors. Without some sort of an army, society becomes at once a prey to "dynamiters" and other crimi-nal conspiracies. During the Rebellion the service of our regular army cannot well be over-estimated.

The Best School of Experien Once military people, in time of need, put their utmost confidence in a man because he graduated from the national military sch They trusted him with large commands; and such still believe the West Point pro-vision of leaders to be a sufficient guarantee for any emergency that may arise. But the truth is that the army experience, after graduating, was ever most important. The the duties were the post-graduate schools that fitted men for greater scope, while the Mexican and the constant Indian wars gave them the richest practical experience. The little army of to-day is in itself a most pregnant and active school; I mean

most pregnant and active school; I mean over and beyond the armies and arsenals, the torpedo and engineer school of Willet's Point, the artillery teaching at Fort Monroe, the cavalry at Fort Riley and the infantry at Fort Leavenworth. At all the posts and garrisons there is an extensive curriculum of theoretic and practical military instruction that is fitting every intelligent, patriotic officer and man to handle armies. It is all this—the regular army in its entirety—staff and line, brings by its constant study and practice the art of war up to date; assimilates all the new discoveries in mechanics to the country's needs; follows up with experiments all advances in