

mater, but the same power, extended against the administration, might prove equally disastrous for Pattison. shot from under him. He left the animal and took up the side of the mountain, but DEMOCRATS GIVE OUT A LIST Captain Jones was upon him and cut off his retreat, whereupon he surrendered. Flint ran at full speed, a distance of ten miles, firing back upon his pursuers as he

COLUMBUS, Oct. 22-[Special]-The Democratic State Committee gave out for went. The fire was returned, and he was mortally wounded, being shot in his left breast. He fell off his horse, and, sitting up on the road, coolly produced a pencil and publication this evening a list of the Pittsburg manufacturers who contributed to the fund to aid Major McKinley in the camapaper and wrote a will, bequeathing his effects to his brother. He then pulled a pistol from his belt and blew his brains out as the paign. On inquiry as to the reliability of the list, a member of the committee stated that it was sent to them by one of the heaviest contributors, who was asked to make a second donation but declined. He does not rangers came up. Sixty or seventy dollars in gold coins was found in a belt around his want his name used. The following is the list:

body. Langedon had about \$600 in green-backs in his vest pocket. When searched, a sack on the packborse containing \$400 in Mexican silver was found. Filmt's body was carried eight miles and was then The passe arrived at Comstook, this county, to-day, with the prisoners, and will go West on to-night's train to El Paso. Duquesne Steel Works, \$1,000; J. W. Friends & Co., \$250; Hanmond & Sons, \$400; Howe, Brown & Co., Lim., \$1,000; Jones & Langh-lins, Lim., \$2,500; Keystone Rolling Mill Com-ynavs, \$250; Kirkpatrick & Co., \$600; Lindsav & McCutcheon, Allegheny, \$1,00; H. L. Lloyd & Sons, Pittsburg, \$100; Lockhart Iron and Steel Company, \$300; Moorhead Bros, & Co., \$500; Moorhead-McCleane Co., \$500; Oliver Iron and Steel Company, \$1,000; J. Painter & Sons, \$1,000; Pittsburg, Sorge and Iron Com-pany, \$1,000. Total, \$23,900. Sheriff

Of Pittsburgers Said to Have Contributed to the McKinley Fund.

list: Apollo Iron and Steel Company, Pitts-bura, \$1,000; Apollo Sheet Iron Works, \$500; Bolton Iron and Steel Company, \$200; Brown & Co., \$500; A. M. Brers & Co., \$2,500; Canonsburg, Iron and Steel Company, \$306; Carbon Iron Company, \$508; Carnogie Bros, & Co., Lim., \$5,000; Chartiers Iron and Steel Company, \$500; William Clark's Sons & Co., \$1,000; Clinton Iron and Steel Company, \$400; Duquesne Steel Works, \$1,000; J. W. Friends

the Pottery Manufacturers-He Says Hirelings Were Sent to Break Up the Meeting. EAST LIVERPOOL, Oct. 22 .- [Special.]-There was a remarkable scene in Governor Campbell's meeting here to-night. An effort

was made to howl him down, and he at once launched out into a personal attack on the proprietors of the potteries here, charging that they had sent their hirelings to break up the meeting. He pointed out a mail carrier who was heading the outer demonstra-

Ther who was needing the outer demonstra-tion, and said he was a fair specimen of the people who did not want to hear Democratic doctrine. "No wonder," said the Governor, "that the Republican bossies are opposed to the Australian system. I wish every roter in Ohio might witness this scene here to-night. This is the highest protected town in the State of Ohio, and the only things that are not really protected are labor and that are not really protected are labor and Applause. After this the meeting quieted down, and the Governor proceeded with his speech, making his usual effort to show that the tariff cheapened labor and increased prices on the product. Before the meeting ad-journed Mayor Hall took the stand and said he was ashamed of the action of some of the people of East Liverpool, and hoped the disturbers would at least respect the office held by Governor Campbell. Governor Campbell spoke to an audience of farmers at New Lisbon this afternoon, and then drove across the country sixtee miles to this place. When he left Cleveland this morning it was raining. The storm turned to hail, then to sleet, and later in the day to a rather brisk snow. The ride from New Lisbon was over a hilly and uneven road, but the Governor stood the trip like a veteran teamster, and appeared as bright and chipper as ever when he arose to talk to the potters to-night. His speech at New Lisbon contained considerable new matter on the tariff question. There are a great many sheep in Columbiana county, and Governor Campbell discoursed at length on the wool tariff.

its occupant. Looking carefully about to see that no-body was looking, McMahon pulled out the revolver, aimed at the dog and fired. The dog gave a mournful howl and fell dead. McMahon then shot * the other cartridge. This time the ball struck the door over three feet away from the dog. At the time Mr. Step-pler was sitting in the front room, smoking and talking with David Hughes and his father. As the second shot was fired the father. As the second shot was fired the two men heard the bullet crash through the door and saw Steppler fall off his chair. The blood was pouring from a wound just over his left eye, and he breathed his last in a few moments. When McMahon was told what he had done he simply said he only in-tended killing the dog, and quietly walked away. No attention was paid to him until J. B. Dodds and James G. Simpson, neigh-hors of the Stenders heart of the schbors of the Stepplers, heard of the affair and started after him.

A CONSTABLE'S DISCRETION.

The two men found out the road McMahon had taken and quickly followed to Walker's Mills, where they met Constable Riley, who was driving along in a buggy. They told Riley the circumstances and ad-vised him to arrest McMahon, but Riley,

iron and glass manufacturers. "Water gas is made by passing superheated steam through a mass of incandes-

cent coke excluding the air. A cubic foot of this gas contains 216 heat units at 600 temperature. Water gas being composed of carbonic oxide and hydrogen, stands between producer gas and retort gas. It is too expensive to work in regenerator furnaces and too lean in heat units to use direct, he sides being very poisonous. Water gas itself does not seem to have very much of a future.

"Retort gas is made by placing bituminous coal in a closed retort and applying

external heat sufficient to distill off the vola-

EAST LIVERPOOL OBJECTS TO HIS FREE TRADE CRUSADE. The Governor Replies by an Attack Upor

happen to him. He is now visiting his wife and child, near Boggy depot, and will remain there till time to be shot, which will be next Friday. He says he would not leave if he could, for they would catch him again and then the Paris (Tex.) Court would get him. He is a full-blooded Choctaw. If he were turned free to-day he would be there on the day of the execution.

FIGHTING PESTS BY DISEASE.

The Novel Method of Scientific Kansas for Ridding Farms of Chinch Bugs.

KANSAS CITY, Oct. 22 .- There was only one session to-day of the American Health Association. The first paper read was read by Dr. H. Fries, of Toronto. He recited experiments which demonstrated the presence of tuberculosis in milk. Cleanliness in animals, the keeping and preserva-tion of milk in as nearly a normal condition as possible were conditions necessary to be observed.

Chancellor Snow, of the State University, of Kansas, read a paper explaining the theory of the destruction of the chinch bug adly dise e amon He estimated that about 75 per cen of field experiments had been thoroughly successful. A farmer was sent half a dozen infected bugs, with instructions to place them in a prepared jar with about 300 bugs from his infected field. In 48 hours they would infect the whole number of bugs which were then scattered through the fields, and the insects would die. In this way during last season 400 farms in Kansas had been cleared of the pest.

gases made from bituminous coal, viz: Producer gas, water gas and retort or illuminating gas. Producer gas is made by passing steam and air through a mass of incandescent coal or coke. The gas contains about 95 heat units to the cubic foot at a temper-

ature of 60°. Poor as it is in combustible

matter it furnishes an economical substitute

for natural gas when used in connection with the Siemens regenerator furnace-a system well understood by the Pittsburg

When confronted with his testimony of yesterday he weakened. He realized that if he had given the warrants to Mr. Boyer, as he had testified he had done, he had turned over to the wrong person a vast sum of money, as Mr. Boyer, having the warrants in his possession, could have reasonably claimed that they had been paid, as he could not have rightfully gotten them unless they were paid.

began and ended as the school year in the

other districts throughout the State, June

1, ending May 31. A lump of dough in the

hands of an experienced pretzel maker

could not have been twisted and warped

into more fantastic shapes than was Mr.

Stewart when lawyers Shapely and Gilbert

drew him into their legal meshes and had

him perform all sorts of acrobatic feats to the

enjoyment of all present, and to the ever-

lasting humiliation of Mr. Stewart, who is

Mr. Stewart is a big man physically. He

is over six feet tall and is well propor-

tioned, and looks a man of bearing and

dignity. In his confusion on the witness

stand, however, he presented a pitiable

sight. He seemed auxious to be right. He

struggled to justify the accused officials in

their alleged violations of the law and in.

the great straddle he was ungenerously ex-

posed by the attorneys of those he was

A Witness Who Satisfied Nobody.

a State official.

soxious to help.

He then said he had mailed the way rants to John Bardsley at Philadelphia, but when confronted with the assertion that if the warrants were mailed they could not have reached their destination in time to avoid the law requiring the money to go into the sinking fund he faltered and completely failed. As a witness he proved of no service to either side.

After Mr. Stewart was retired Treasurer Bover was called to identify some tahnlated statements supplied from his books, and he was kept on the stand until the noon adjournment. The afternoon session was distressingly uninteresting.

The Boyer Inquiry Closed.

No witnesses were called and it was decided to close the case against Mr. Boyer. Attorney General Hensel objected to having the inquiry called his case and also objected to the words, "closing the case." He insisted that it was an inquiry and not B case.

When the Senate convened at 3 o'clock Mr. Shapley, hot and flushed with a keen sense of humor and a liberal knowledge of law, created some amusement by offering in evidence in Mr. Boyer's case all the testimony that had been collected by the legislative and councilmanic committees; although he had streamously objected to the admission of such evidence when the inquiry was first began. We now offer anything and everything

that has been discovered against our client, Mr. Shapley said, and his confident air amused both sides of the Senate. In their amusement the Democrats overlooked the trap the clever attorney was constructing for them. Mr. Shapley wanted time. His effort was to delay the proceedings and seemingly with their eyes closed the minority party fell into the ditch digged for them.

Foll Into a Legal Trap.

They accepted Mr. Shapley's magnanimous offer. They were perfectly willing to accept all the evidence, and with the exception of Senator Ross so voted., Much of the evidence they had never heard, and to consider at they must have it before them. That was the brilliant little scheme. It guaranteed all the delay necessary.

To print the evidence would require nearly a month, and would cost almost \$50. 000. To have it read by the clerk would take about a week. Shapley chuckled, and Hensel who saw the purpose of Mr. Shapley's original move, but who was only assinting the Senate and could not warn his Democratic brothern of the danger shead, fairly grouned with anger, and when the opposing counsel chaffed him at the first mistake of his party he flushed with wrath, but suid not a work.

Senator Ross wanted the matter reconsidered, but the Republicans would not join him. Several speeches were made on both sides, and the matter was finally compromissid by having the clerk read all the evidence taken by the Legislative Committee at its last meeting. This will be printed for the consideration of the Senate,

Reading for Hours Without Heavers. It was 5 o'clock in the afternoon when the clerk began reading the uninteresting evi- tempted to commit suicide yesterday, was dence. Before he had read ten pages over half the Seantors who were present were to-day.

Sheriff Keefer went up to-day, with war-rants for the men. Captain Jones refused to deliver them to him. Deputy loe Sitter has hunted the gang like a bloodund, and has hung on their trail with bulldog tenacity for more than a week.

mried

HARRISON'S CASE OF WHISKY Sampled, Gauged and the Duty Paid by

Colonel Erhardt.

NEW YORK, Oct. 22 .- [Special.]-The President's barrel of whisky was officially sampled and gauged to-day. It was found to be rare stu", and a duty of \$2 50 a gallon was declared to be about the proper figure Colonel Erhardt had already sent a \$54 deposit to Broker Ackerson as a guarantee of good faith. He will get \$9 back from the Custom House officials, and it is further presumed he will get the remaining \$45 from the Chief Executive of the country, Colonel Erhardt would not say anything to. day. Others, however, say it seems to be rather embarrassing for both the President and the Colonel, inasmuch as the President forced the Colonel to resign the Collectorship, and is now indebted financially to him. There

is another person concerned who may feel slightly embarrassed, also. He is Mr. Andrew Carnegie, who sent the barrel from Cluny Castle. Apparently Mr. Carnegie is not keeping a very close run of things, and thought Colonel Erhardt was still Collector, and, being Collector, necessarily Mr Harrison's friend. The barrel is marked

"C. E., Collector, New York," while the entry papers contained his name in full. Presidental barrel contains 1414 im The

perial gallons. That would be 181/ gallons over here. Its value was set at \$53, or about \$3 a gallon. Whisky is cheap in Scotland, and a good article can be had for The President's is a rare special 75 cents. brand. Some curious people would like to know whether the President bought the barrel through Mr. Carnegie, or whether Mr. Carnegie made him a present of it. Colonel Erhardt won't tell, if he knows,

NO DIVORCES IN MEXICO.

And but Little Prospect of the Passage of a Separating Act.

MONTEREY, MEX., Oct. 22 .- [Special.]-There has been much feeling aroused in Catholic Church circles throughout the republic over the prospect of Mexico having a divorce law. The Mexican laws have

never recognized divorce, but Juan A. Matcos, member of the House of Deputies, has introduced a bill in that legislative as sembly legalizing the right to secure divorces in this country. It is not likely the measure will become a

law, as the majority of Mexicans are Catho-lies, and that Church is bitterly opposing e proposed act. At the present time it is tible to obtain a divorce in this coun-STITU try under any circumstances.

NO REBEL FLAG ALLOWED

To Float Over Posts of the Grand Army in the Future.

ALBANY, Oct. 22.-[Special.]-Commander in Chief John Palmer, of the Grand Army of the Republic, this evening declared his intention to issue at an early day an order prohibiting posts of the Grand Army from taking part in any ceremony where the rebel flag is displayed. He came to this decision by reading the account of the unveiling of the Grady monument in Atlanta,

vesterday. Captain Palmer was quite worked up over the fact that the posts of the Grand Army took part in a celebration where the rebel fing was shown.

The Suspension of a Suicide Broker,

NEW YORK, Oct. 22 .- The suspension of W. C. Whitehouse, the broker who atannounced in the Consolidated Exchange

NAMED ON THE 120TH BALLOT.

Lively Contest for the Nomination of **Constitutional Convention Delegate.**

WAYNESBURG, Oct. 22 .- [Special.]-The onference from Fayette and Greene counties met here last evening to nominate a candidate to the Constitutional Convention. P. J. Newmeyer, of Connellsville, and I. S. Stenz, of Waynesburg, were placed in nomination. Then began a stubborn fight, in which 106 fruitless ballots were taken, and the conference adjourned until this morning. Mr. Hosack then put in nomination Thomas Holt, a prominent labor leader of Faye'te county. On the one hundred and twentieth ballot Stenz was made the n

It is the general opinion here that the majority of votes in Greene county will be against the holding of a constitutional con-vention, on the ground that it is more than dangerous to tamper with something that can hardly be improved.

CLEVELAND REFUSES TO GO.

The Democracy of Grand Rapids Asked Him to Stump a District. GRAND RAPIDS, MICH., Oct. 22 .- I. M.

Weston has received a letter from ex-President Cleveland in response to an invitation to assist in the Congressional campaign now in progress. In it he says he does not think he ought to advise or instruct the people of this district how they should discharge their political duty.

"You tell me that the Congressional campaign is being conducted on the tariff issue," he continues. "I do not fear that there will be any lack of arguments and reasoning by those who are on the spot and who advocate an adjustment of our revenue laws as will give to our working men the best rewards for their labors and supply to them and all others who earn their living the necessaries of life at a cheaper cost. If these things were accomplished it is per-fectly evident that the condition of all who

work would be immensely benefited.

WEST ELIZABETH STRAIGHTOUTS.

An Oil Producer Erects a Large Pavilio for Them at His Own Expense.

WEST ELIZABETH, Oct. 22 .- [Special.] A rousing Straightout open meeting was held here to-night. The rink owned by the Waltons was refused the managers, but only on the plea that it would not be large

enough for the crowd expected. Mr. Snee, a wealthy oil and gas producer and an en-thusiast in the Straightout cause, erected at

his own expense an immense pavilion, lighted and warmed by gas brought from

the wells nearby. This immense platform would not hold the people who gathered from this stalwart Republican stronghold to hear speeches by Mesrs. Fetterman, Nesbitt, Fitzsimmons (of the firm of Robb & Fitzsimmons), and others prominent in the present fight.

Democrats Giving Odds on Flower.

NEW YORK, Oct. 22 .- [Special.]-Thomas Patten, a real estate man in this city, is reported to have bet \$20,000 to \$9,000 that Flower will be elected, one bet being \$10,-000 to \$5,000 and the other \$10,000 to \$4,000. The money was laid with certain committeee Hoffman House, with whom is

said to have been deposited funds for betting on the Republican ticket at the best olds obtainable. It was reported this money could be had at odds of 10 to 8, but when Patten offered the cash the committee men

FASSETT INTERRUPTED, TOO.

Tammany Democrats Pursue the Same Tactics as East Liverpool Republicans. NEW YORK, Oct. 22 .- While Senator Fassett, Republican candidate for Governor, was addressing a large concourse in this city to-night he was frequently interrupted by boisterous talk. At length a melee sprang up in the rear of the house and the police hurried down the aisles to quellit. "This illustrates Tammany methods," be-gan Mr. Fassett. "Tammany is trying to the house.

break up the meeting," shouled many men, springing to their feet. But the speaker commanded attention, and the police secured quiet.

Sherman at Bellefontalue.

BELLEFONTAINE, Oct. 22.-[Special.]-Senator Sherman addressed a large meeting to-day at West Liberty. After several days of rain and gloom the warm sunshine and balmy air, together with their admiration for the venerable statesman, drew the people thither from all parts of Champaign and Logan counties. The meeting was held in a large tent, where fully 2,000 people listened intently to a two hours' discussion of the issues of the campaign. Senator Sherman went to Columbus to-night and will speak at Richwood to-morrow.

The California People's Party Organized. SACRAMENTO, Oct. 22 .- The People's Party convention opened here to-day for

the purpose of effecting a State organization, the adoption of a platform and other business. There was a large attendance of delegates representing the labor organiza-tions and the Farmers' Alliance. Presi-dent Polk, of the National Alliance, made an address before leaving for the East.

ONLY ONE FACT BEMAINS.

Of a Story of Railroad Gobbling That Came From the West,

PHILADELPHIA, Oct. 22 .- [Special.]prominent official of the Pennsylvania Railroad said to-day, of the dispatches from Indianapolis stating that the object of his recent visit West was to negotiate a traffic alliance with the Northern Pacific Railroad

with the Pennsylvania system: "There is no truth in the dispatch except that Mr. Roberts is in the West. He is not there for the purpose of buying the Northern Pacific or any other railroad, but for the purpose of looking after his own road. It is not even true that he is accompanied by two English capitalists, so that you see the only true statement in the dispatch is that Mr.

Roberts is in the West. "Mr. Roberts and the officials of the Pennsylvania Railroad Company who are now inspecting the property will return from the West Saturday. The directors will meet shortly to declare the semi-annual dividend, which is payable next month."

the man, Dodds then went to a house near by and summoned the occupant, who peared with a shotgun. When ap-Me-Mahon saw the gun he stopped and surrendered. Riley then clapped a pair of handcuffs on his wrists, and took the pris-oner to the office of 'Squire Walker. A charge of murder was preferred against him, and he was at once brought to Pittsburg and turned over to Warden McAleese at th county jail.

Coroner's Clerk Grant Miller visited the scene of the shooting in the afternoon, impaneled a jury and began the inquest. Edward Rifler, clerk in a grocery store at

Oakdale, was the first witness examined. He said that early yesterday morning Mc-Mahon called at the store and borrowed a revolver and cartridges to kill a dog which had bitten him. McMahon did not say where the dog was, but when Rifler asked him he replied that it was not far away. A short time after this he returned the revolver with the cartridges empty.

Mrs. Steppler was placed on the stand and testified that she was in the house the shooting took place. She did not know what was wrong until she saw her husband lying on the floor in the room.

David Hughes, who has been boarding with Steppler for two weeks, said he was sitting in the room when he heard two shots fired in the yard in front of Steppler's house. He saw Steppler fall from a chair near a window where he was sitting. He ran to the door and saw McMahon standing in the yard with a revolver in his hand and told him he had shot a man in the house. McMahon said that he had been shooting at the doc and did not see how he could have shot in

SAW M'MAHON SHOOT.

Maggie Steppler, daughter of the dead man, said she was in the house when she saw McMahon come along and pull a re volver from his pocket and shoot at the dog in the yard, killing it. He then fired again, but she did not see where he had pointed the revolver, and could not say whether Mc-Mahon had shot into the house intentionally. At this point the inquest was postponed wing to Mr. Miller having to return to the city.

The inquest will be continued this mornng when it is said the most important wit esses will be examined.

Xavier Steppler, the dead man was a coal miner, employed in the Oak Ridge mines. made no recommendation. He leaves a wife and three children. He was well known about that section of the country, having lived at Oakdale for a number of years past. He had many friends and the circumstances surrounding his death have caused a great deal of excitement.

Thomas McMahon has not been around Oakdale very long and was known only to was considerably addicted to few. He drink, but was never known to molest or quarrel with anybody. During the past few weeks he has been spending the greater portion of his time in some speak-easies in the vicinity. There is a difference of opinion in Oakdale as to whether he intended shooting Steppler or not.

RACING ACROSS THE OCEAN. Four Sailing Ships Trying Their Speed

With Big Loads. BANGOR, ME., Oct. 22 .- [Special.]-One of the greatest ocean races on record is now in progress between four big sailing ships, which left San Francisco on the same day a few weeks ago, grain laden, for Europe. First among the fleet is the queen of the American merchant fleet, the four-masted ship Shenandoah, of Bath, 3,258 tons net register. She is less than a year old, and is the largest wooden ship afloat. She carries 5,000 tons of wheat, the largest cargo of the kind ever stowed in a sailing ship, and is bound for Liverpool. The Shena doah's greatest competitor in the race is the British iron ship Strathearn, a fiyer of great re-nown. The Strathearn is 20 years old, and in her young days was a crack packet be-tween New York and Liverpool, easily beating the time of most of the steam freighters, while in recent years she has

ACCUSED OF BEING A G. A. R. MAN.

The Novel Form of Heresy of Which Wesleyan Minister Is Guilty.

GRAND RAPIDS, MICH., Oct. 22 .- There s a war on in the National Conference of the Western Methodist connection, which opened its quadrennial sessions in this city to-day. Rev. G. P. Reilly, of Marion, Ind., was accused by John Livingston, of Detroit, of being a member of the Grand Army of the Republic. Mr. Reilly did not deny the accusation, but asked leave to explain, which, however, was not granted him, Rev. N. Warder, of Syracuse, N. Y., President of the Conference, declining to hear him further, or to fellowship with the heretic

Rev. Mr. Reilly entered the military service as chaplain, but ended the war as Colonel of the Sixth United States Colored Regiment. He says he joined the G. A. R. nine months ago; is not ashamed of that fact, and will take the consequences. The Weslevan Church is much opposed to secret ocietics.

Adjournment of the Typothetæ,

CINCINNATI, Oct. 22.-[Special.] - The Typothetæ adjourned to-day. Toronto was osen as the place for the next meeting, to be held in August, 1892. Officers for the ensuing year were elected as follows: President, W. N. Sheppard, Toronto; Secretary, Everett Waddey, Richmond, Va.; Treasurer, Charles Buss, Cincinnati; Executive Committee, Amos Pettibone, Chicago: Theo, L. Devinne, New York; C. S. Morehouse, New Haven; W. H. Woodward, St. Louis; William H. Bates, Memphis; A. M. Geez-mann, Minneapolis; N. S. Fish, Indianap-olis. The Committee on Typesetting Ma-chines reported a number of statistics, but

A Notorious Brigand Killed.

HAVANA, Oct. 22 .- The notorious bandit Palenzuela was killed by soldiers in the San Juan wood, near Colon, to-day. As the troops were passing through the wood they came upon the bandit, and at once began firing upon him, killing him instantly.

TABLE OF CONTENTS.

The Senatorial Investigation. Powderly Turns Republican...... 1 Editorial Articles and Comment...... 4

Deaths Here and Elsewhere...... Local Religious Assemblics.....

tile hydro-carbon gases which require scrubbing and cleaning before delivering into the pipes for distribution. One cubic foot of his gas contains about 670 heat units at a temperature of 60°. Natural gas bobs up serenely from a hole in the ground, and contains 1,051 heat units to the cubic foot, and has a value of 20 cents per thousand. Nuisances Turned Into Value. "In the manufacture of coke," he con tinued, "with the most popular method

in the country, the bee hive oven, on every ton of coke produced there is a loss of about 15,000 feet of illuminating gus, 12 gallons of tar and about 25 cents worth of ammonia. Experiments we recently made in this city have demonstrated beyond the possibility of a doubt that a satisfactory quality of coke can be produced and these valuable coal products hanged from a nuisance to a useful commodity.

"The new process consists in the application of the regenerator furnace to the manifacture of coke where producer gas can be used to furnish the necessary heat and these valuable hydro-carbons and bi-products utilized so as to give the gas free of cost. and the gas so produced may be supplied through the pipes now used to supply natural gas to manufacturers and priva onsumers.

Engineer Smith then showed the following figures, which are based on actual results obtained in an experimental furnace built for the purpose:

COST.

50 tons coking coal at \$1 50 per ton...\$ 75 00 8 men to treat the above at \$2 per day. 16 00 10 tons of gas producer coal at 50 cents 5 00 per ton. Cost of superintending repairs, etc., at \$5 per diem..... 5 00

CHEDIT.

Each ton of coal producing 1,300 pounds of coke, making , 65,000 pounds at \$2

gallons of tar, making 600 gallons at 8 cents per gallon Each ton of coal yielding about 25 48 00

cents worth of am 19 50

leaves a balance of \$24 50 profit per diem and gives 500,000 feet of good gas free of cost to the manufacturer. Thousands Wasted Every Day,

Now, suppose the application is made to the works of H. C. Frick. It should be un-derstood that the calculations that follow

are made somewhat loosely, fractions being

dropped, but they are sufficiently accurate to convey the idea intended, so for a fresh

of 16 tons each; 11,200 tons, and adding 50 per cent to that will give the amount of coal

at present consumed, 16,800 tons. With each

at present consumed, 10,000 tons. With each ton of coke is produced 18 gallons of tar, or with a day's shipment 211,600 gallons, which is worth \$16,928. Now in the making of each ton of coke there are 15,000 feet of gas

wasted worth at 15 cents per thousand \$2 25

and on 11,200 tons 168,000,000 feet worth

\$25,200. Each ton of coke yields 37 cents'

worth of ammonia and 11,200 tons, \$4,144.

the slack coal necessary to run the regener-ative furnace for 24 hours, \$2,250, such

slack being worth but 50 cents per ton, and

you have the saving effected of one day's

you may the string energies of output of these works by the application of Mr. Smith's process, which changes a nui-sance into a valuable property. The record for one day's output in the utilization of

the waste at the Frick ovens shows profits

Tar, 111,650 gallons. \$16,928 Gas, 188,660,660 cubic feet, at 15c per 1,600 feet. 25,200 Ammonia 4,144

More Than Double the Profits.

As this is something over twice the

.\$46,272

Tota].....

Now from the above deduct the cost of

Mr. Frick ships 700 cars of coke per day

start:

as follows:

Page,

............