

BACK TO COAL GAS AGAIN

That's One Effect of the Rise of the Aristocratic Automobile.

GOOD WORD FOR HARD WORKING METER

Increased Cost of Gasoline and Naptha Causes Water Gas to Be No Longer the Cheaper Product.

NEW YORK, May 11.—In spite of the very general use of illuminating gas in this country an astonishingly small number of people seem to know anything about its manufacture or the methods of distributing it.

As to the statement that three-quarters of all the illuminating gas made in the United States is water gas, that might have been true ten or a dozen years ago, but conditions have so changed in the last decade that it is next to impossible to make water gas at a profit at the current prices of oil supplies, and for that reason many of the companies formerly engaged in the production of water gas have abandoned the business.

Gas Making Affected by the Auto. The only reason why this provision for water gas is made is that the candle power of the illuminant may be kept up to the high standard required by the law here.

But the increased demand for the fluids caused by the enormous number of autos in use has sent the price scurrying up to something like 30 cents. This, taken in connection with the constantly advancing price of coal, coke and other byproducts of coal gas, has turned the scales in its favor.

There are no valuable byproducts to speak of in the process of making water gas, and it is quite a problem to dispose of the residue which is produced in this way. The residue is called gas oil by the makers and is used for the making of so-called water gas. The price of this oil was formerly as low as 3 cents a gallon and it was one of the factors that made the manufacture of water gas so cheap throughout the country.

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The consolidated company was never swept off its feet by the popularity of water gas. The largest part of the original company in the consolidation has always been coal gas. One fire under a section of retorts in the East Fourteenth street coal gas plant has been burning continuously for nearly fifty years.

Water Gas More Poisonous. One of the greatest objections to water gas—not commercially—is the deadliness of its effect, even when used as a mixture in its manufacture the most poisonous acid is increased from 5 to 30 per cent. That is why so many people who are overcome by illuminating gas die quickly. It is also probably the reason why suicide by gas is so popular with those who wish to live no longer.

There is a radical difference in the initial processes of manufacturing coal and water gas, and yet when lighted the flames present precisely the same appearance to the ordinary observer. The oil gas is slightly whiter and more brilliant, but when the gases are mixed none but an expert can tell that it is a composite flame.

Coal gas is produced by the direct destructive distillation of bituminous coal, whereas the carbonization in making water gas is produced through the use of anthracite. It was in 1659 that Thomas Shirley of England read a paper to the Royal Society on an experiment he had made with gas from a well in Lancashire, resorted to from the decomposition of bituminous coal, but it was not until 122 years later that the practical value of coal gas as an illuminant was demonstrated by William Murdoch, a Scotchman, who constructed the apparatus for lighting his house and factory at Redruth, Cornwall. Later gas was introduced as an illuminant in the cotton mill at Manchester.

The experiments of Lebon in Paris attracted the attention of Winsor, "the father of modern gas lighting," in 1799, and he urged London to use the illuminant for general lighting, but not until 1810 did he secure the incorporation of the Gas Light and Coke company. Another two years passed before the royal charter could be procured, and it was in 1812 that the Westminster bridge was lighted by gas.

Flame then was not comparable in illuminating power to the gas today.

Coal gas is made from a particular kind of bituminous coal that is known in the trade as gas coal. It yields from 4.75 cubic feet of gas to the ton, and the best grades come from the Pittsburg fields, West Virginia, Tennessee, Indian Territory and Colorado.

The machinery and processes for making coal gas are rather intricate, but they are entirely automatic, at least where the retorts are stoked by machinery, and they rarely get out of order. The gas is generated in fire-clay retorts which are usually set up in sections or benches of six.

Under these benches are glowing fires of coke, which often are not allowed to die down in years and which heat the retorts to a temperature of about 1300 degrees Fahrenheit. Into these white hot retorts is projected the gas coal.

In some of the plants of the Consolidated company this work is done by a machine invented by William H. Bradley, the veteran chief engineer of the company. In others the shovelling is done by hand. Each retort holds about 300 pounds and as it must be filled quickly it is a job requiring a great deal of alertness and physical strength.

An each retort is filled an iron door is closed, the mouth and locked with gas tight joints. As the coal is being reduced to coke by the great heat the gas loaded with tar and other byproducts ascends through a bell-shaped funnel which is fastened on the end of a standpipe leading to the hydraulic main. The water which is placed over the long row of retorts.

On the top of the standpipe there is a bridge or arch pipe from which hangs a dip pipe which is bolted to the hydraulic. Passing down into this main the gas dips below the ammonia liquid with which the hydraulic main is partly filled and by being thus sealed the gas is prevented from returning to the retorts when they are opened.

Washing the Gas. But this is only one step in the process through which illuminating coal gas must go before it is ready for the consumer. It is drawn from the hydraulic main by an exhaustor, which is operated by a rotary steam pump, to relieve the back pressure on the retorts, thrown by the holders and the friction of gas as it passes through the apparatus.

The next stage of the intricate machinery the gas goes to the tar extractor and has its face partly washed—that is, it is relieved of all the heavy tar that was not dropped in the hydraulic main. By this time the gas has fallen in temperature to about 100 degrees, but it is further cooled to 50 or 60 degrees in the condenser.

This part of the apparatus resembles a tubular boiler. The water passes through the tubes in one direction, while the gas passes outside in the opposite direction. Having been sufficiently cooled the gas goes to the scrubber for a final bath.

As near as possible all of the ammonia gas is washed out and the residue is sent along to the purifiers to get whatever sulphur there may be out of it. These purifiers are cast iron boxes with covers sealed in water to prevent the escape of gas. They are filled in layers with either slack lime or oxide of iron and through these layers the product passes, leaving the sulphur behind.

The net total of the illuminant sold is ascertained from the total of individual meters throughout the city, and the difference between the two, making due allowance for condensation in the street mains, constitutes the leakage. The leakage is ever increasing, and the gas companies are now drawing water from a tap in the streets that will know that the sweet scented mess was once illuminating gas which has condensed in the mains.

Storing the Gas. But to go back to the journey of the manufactured product. From the station meters the gas is sent to the holders, the exhaustor still getting in its fine work and urging the illuminant along the way that leads to gas bills and many swear words.

This holder proposition is one of the most puzzling of all to the lay mind. How does the gas get in and how does it get out? It is the weight of the holder that forces the gas into the mains, why does not the same pressure drive back the gas to the retorts, blowing off the covers and making a merry time generally? Well, it is right here that the exhaustor is on the job again.

When the gas left the retorts in crude form this machine has been drawing it away and forcing it along all through the apparatus. The same force drives it through the intake of the holder and prevents it from backing up when the gas is pouring into the mains for distribution. The giant holder is a New York invention, and they are in all other big cities. The capacity at present of the largest is often 5,000,000 cubic feet, but there is one in England which holds 12,000,000 cubic feet.

RIVAL OF ROYAL ACADEMY

Exhibition at Art Gallery in London is New Open.

PICTURES ARE NOT UP TO STANDARD

Critic Finds Dulness Chief Feature of Exhibit, with One or Two Good Portraits and Landscapes.

LONDON, May 11.—(Special Correspondence.)—The new gallery's exhibition is now open. This is the annual exhibition of the Royal Academy in the summer, and its aim is to get ahead of the older institution, which is held in the autumn.

It got ahead in point of time, for it opened a fortnight earlier, but if it has got ahead this year in point of quality, then the Royal Academy will be a very poor show. The pictures are almost entirely of the kind of pictures seen particularly in the past, coming, as it does, immediately after the exhibition of the International Society, held in these same galleries. That stands a much better chance of being a good show, for the best talent of many nations is assembled and the committee is catholic in its tastes.

At one time the new gallery befriended gifted artists who were not accepted by the Royal Academy. The very quarrelsome Whistler never came to terms with the powers that be at Burlington House; and Burne-Jones, although he exhibited there once or twice after he was tardily elected, returned to the gallery to those who first recognized his talent.

Watts, too, showed his best pictures there. Then the New gallery had a reason for its existence. Now these men are dead and the galleries are mostly filled with the work of a few feeble imitators and certain artists who are not accepted by the Royal Academy.

Oh, the dullness of them! The uninteresting, insipid, mediocre, dullness! With great cunning their work is placed in the first two rooms, otherwise the visitors would never have looked at them at all.

There are commonplace maidens, in inadequate drapery playing on impossible instruments, while they smirk at the spectator; there are coy Greek shepherdesses struggling with shepherds whose muscles look as though they were bags stuffed with sawdust; there are pretentious women in regulation lower garden. There are illustrations of medieval legends, which perhaps would not be so bad if reduced to the size of an illustrated manuscript.

In these rooms the mediocre dullness is relieved by one or two good portraits and a few good landscapes. Almost the first picture one comes to is a landscape by Moffat Lindner.

It would be interesting if one could only see it. But why, oh why, is it glazed? To look at a picture through a glass is almost as irritating as looking at a notable personage or a pretty woman or a fine stretch of country from behind a closed window. One longs to throw up the window and get a clearer view.

It is permissible to protect an invaluable work of an old master by glazing it; but in the present case the glass only serves to reflect the other pictures in the room or else the visitors. Moffat Lindner is a capable artist and does charming work when he sticks to his own style. It is foolish of him to imitate Arthur Melville, as so many others are doing since the posthumous exhibition of that exceptionally gifted man.

Sir James Linton's large picture, "The Admonition," is a nice old-fashioned, early Victorian work. A bishop has arrived in his mitre and priestly garments to see the girl who is to be married. He is idling away his time in the company of a singing girl and a troupe of marionettes.

Some Pictures Noticed. Byron Shaw is more at home in dealing with a large emblematic composition. His coloring is apt to be a trifle crude, and in the "Caged Bird" the green is too rank and the detail overelaborated of the formal garden which obviously forms the background of the scene. It is a pity when he hand a bird cage of which she has opened the door, and her upward look follows the other caged bird she has just liberated.

The first picture in the next room is a portrait by J. J. Shannon, A. R. A., of the Countess Strathmore. She has cast up her eyes with a tearful look, as much as to say, "Why am I placed in the company of all these indifferent works of art?"

The full length portrait of Hon. Mrs. Coulson follows by the same artist. She is trying to look as though she were not counting her lost white evening dress as really too dirty to wear. Percy Spence, endeavoring to make John Burns, M. P., look like a cabinet minister, has toned down his rugged countenance and reduced the size of his massive shoulders till he is as much like a common-place personage as it would be possible for John Burns to be. J. E. Blanche has a portrait of Lucien Simon, a simple and forcible work, without the harnesses of color and technique which he so often gets in his more ambitious paintings.

CHARITIES AND CORRECTIONS

Plans of the National Conference to Meet at Minneapolis Next Month.

The national conference of Charities and Corrections meets in Minneapolis June 9 to 12. The purpose of these annual meetings is to bring together men and women engaged in charitable work and social advancement throughout the United States.

At last year's conference in Philadelphia, 1,400 persons attended, and it is confidently expected that next month's meeting will surpass it in numbers and interest.

The recent development of philanthropic work has been remarkable. First there were state institutions for the adult; later institutions for the child carried the work of prevention back to the child in the institution to the child in the community, the work of prevention done by child labor laws, juvenile courts, and industrial education. Of the nine standing committees of the conference this year, five—legislation, education, income and epileptic, the defective, prison and administration—emphasize the importance of the problems of state care; while committees on children, on needy families, on their homes and neighborhoods, on "the promotion of health in home, school and factory," and on "workingmen's insurance" further show the strength of the new movement of prevention.

The National Conference on the Education of Backward, Truant and Delinquent Children will also hold its annual session in Minneapolis June 10 and 11, and the National Children's Home "Funding Society" will convene on June 20 and 21, so that in reality there will be a continued conference on charitable work from June 10 to 21.

The opening session of the Conference of Charities will be held on Wednesday evening, June 12, at 8 o'clock, in Minneapolis' magnificent auditorium. The same afternoon, June 13, at the same place and time, a national conference sermon will be delivered by Archbishop Ireland. The remaining sessions will be held in the city and county available rooms with seating capacity ranging from 200 to 800.

Virtually all armies now have uniforms of khaki or other inconspicuous material for active service. The brass buttons and scarlet coats that once made the soldier a target have disappeared, and even parade uniforms are quite unobtrusive.

In one place, however, brass buttons still hold their own—on the broad bosoms of our police. The patrolman has to wear them both on parade and on the firing-line. Few things are so comforting to the burglar as the thought of that double row of shining disks, which are the darkness. They are as pleasing to the hold-up artist and "yeggman" as were the red coats of Braddock's regulars to the Indians ambushed outside of Fort Duquesne.

Much of the patrolman's night work consists of prowling around black alleys and back doors in the deserted business district. With long practice he is able to lurk in shadows and sometimes get the start of an unsuspecting crook. But the moment he turns his face toward danger he is "visible" as though a spot-light were thrown upon him, and his double row of brass buttons make him a walking sign-post for the criminal who wants to get away, and a plain target for the one who prefers to shoot.

The governments of the world have recognized, both in theory and in practice, that the private soldier has a right to be as small a target as possible. But the policeman is still bound down by military tradition in the matter of his uniform. He is a military relic and anachronism—Saturday Evening Post.

Rug Tenants More Nomadic. "The first thing I ask a prospective tenant," said a landlord, "is, 'Have you carpet?' The apartment hunter answers 'Carpet.' I've got so that I always ask that question and whenever possible I rent to a man who has an old-fashioned as to a carpet. There is nothing like a carpet to hold a tenant in place. A lease for half a year is no good. Carpets are cut up to fit the floors and the walls are torn down to get the carpet. Carpets are put in to get their owner to pull up stakes and go to some other place where the carpets are better. Always, which makes it heavier in texture, but the color of the fresh tones has a sunny quality, to account for which a streak of sunlight is introduced on the balustrade in the background, and in that

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BISHOPS ON UNIVERSITY

Standing Committee Issues Statement Embodying Ideas of Irish Hierarchy.

GOVERNMENT IS ASKED TO RUSH BILL. Any One of These Plans Submitted Will Be Satisfactory at Present, but Conditions May Change.

DUBLIN, May 11.—(Special.)—Cardinal Logue, the archbishop of Dublin and Primate of all Ireland, was present at the meeting of the standing committee of the Roman Catholic archbishops and bishops just held here. At the conclusion of their deliberations a statement bearing upon the Irish university question was issued. They state:

In our opinion, quite possible within the general outline of the plan to meet substantially the claims that we have repeatedly made on behalf of the Catholic body in Ireland and at the same time make suitable provision for the general educational needs of the country.

In the memorandum sent by us on July 25, 1906, to the royal commission on Trinity College, Dublin, and the University of Dublin, we stated that in our opinion the Catholics of Ireland would be prepared to accept any one of these plans of settlement of the university question. That is still our belief, but at the same time we feel that the government, in the exercise of its undoubted right, made its choice among these plans, it is our duty loyally and fairly to meet, and give its proposals our most friendly and sympathetic consideration.

On the supposition, then, that the government gives us an adequate and worthy consideration, we shall consider the Catholic body in Ireland, and the Catholics of our time of the Irish university question. Of course, neither we nor anyone else can force what the natural development of the institution just stated as far as we are concerned, we shall consider the Catholic body in Ireland, and the Catholics of our time of the Irish university question.

The declaration then pleads for the immediate action on the part of the government in connection with the plan as selected, and the hope is also expressed that time may be found to introduce in Parliament it and the other "Irish measures of great importance" during the present session.

OLD DETECTIVE LEAVES FORCE. Inspector John Walsh of Scotland Yard Recalls Work of "Forty Thieves."

LONDON, May 11.—(Special.)—There has just retired from the detective force of Scotland Yard a man who, after nearly thirty years of service, has won records of which Sherlock Holmes might well be proud. This is Detective Inspector John Walsh, who helped to capture the dynamite of the eighties, to track down the anarchists of the nineties and who arrested the notorious "Invincible No. 1," who closed the "Innocent Club" and who has taken no small part in the work of protecting Queen Victoria, the present king, the czar and the Kaiser as well as other rulers of Europe. Pressed for the most interesting incident in connection with his career, he would only recall the incident of "The Forty Thieves."

"The Forty Thieves" continued Inspector Walsh, was a well known band of criminals, when I first joined the force in 1878 and was stationed at Bow street. They consisted of a number of pretty girls between the ages of 14 and 18, who walked the streets of London and decoyed men into dark thoroughfares and in around St. Giles and the Seven Dials, where they were set upon by a less attractive gang of men in league with the "Forty Four Ones," deprived of their valuables and sometimes beaten—sometimes worse. The men numbered among them some of the worst criminals to be found in London and how they managed to get hold of so many really pretty and really young girls and maintain a hold over them has always been something of a mystery. Among the men were some of the most famous criminals of thirty years ago, burglars, con men, foot-pads and thieves. Along with some colleagues at Bow street I was instrumental in breaking up the gang and within twelve months there was not one of them who has not done penal servitude."

HONOR FOR PHYSICIANS. Arms of Two May Be Augmented by Addition of Royal Lion.

LONDON, May 11.—(Special.)—The British Medical Journal says: "The king has granted a very uncommon honor to a hold over them has always been something of a mystery. Among the men were some of the most famous criminals of thirty years ago, burglars, con men, foot-pads and thieves. Along with some colleagues at Bow street I was instrumental in breaking up the gang and within twelve months there was not one of them who has not done penal servitude."

EARTH GIVES UP TREASURE. Trembler Near Lisbon Throws Buried Riches to Surface and People Dig.

LISBON, May 11.—(Special.)—An earth tremor followed by a moderate tidal wave has thrown up a remarkable treasure trove on the shores of Nazareth, one of the prettiest seaside resorts on the Portuguese coast. Among the articles found are a large quantity of ancient coins, valuable coins of all nationalities, gold buttons, scarfpins and other jewelry of considerable value.

BRITISH READY FOR TROUBLE. Consulates in All Places in Persia Are Increasing Number of Guards.