

R. Pace, a gunner's mate of the old New York, was Gordon's engineer on his first record, as well as on the last one on March 25. Supt. Netherland had a crane feed the piles close to Gordon's hungry hammer from 7:30 A. M., when the work began. The steel clasps suspended from the crane trapezoid shifting the piles tore so into the bark that before 3 P. M. the ground was chocolate with a veneering of cocoa leaf dressing.

The writer worked near by, and the steam and smoke of the driver was as dense as that from the Mauretania making a record. Running true to form, as a crack miler gets on his first half fastest, Gordon had hammered in seventy-five piles at noon. Resuming at 12:45 P. M., the monkeys, mad for blood, yelled when ready, "Hammer!" and it was hammer and drive, but no confusion or danger, until 3:15 P. M., when Pace's whistle shrilled they had broken the Raymond record of 112 piles, made two weeks earlier on Hog Island.

Excitement ran high. Timekeepers and checkers on the final rounds clustered about the machine. Inspector George Platte told Al Cooper, way inspector, of the record, and Cooper soon secured Old Glory and the Allies' flags. At 5 P. M. Gordon, hugging Old Glory and the gay colors of the Allies, ran down toward Monkey Walter Godfrey, dodging the caresses of his jubilant crew. In the grimy setting Bill seemed more a rose burdened Galli-Curci or a McCormack bowing to the tumult aroused by an artistic triumph than the king of Uncle Sam's pile drivers in a gray, mud bespattered sweater.

A five minute delay ensued and when the flags heralded the record from the tower top, the crew finished at 5:30 with a total of 140 piles.

Sam Fisher, grandson of Samuel Hudson Fisher, Postmaster-General, who presented Philadelphia with the Independence Hall clock, is a proud member of Gordon's composite crew, which includes three Hawaiians. These Pacific, not pacifist, Americans dismantled their ukeleles to go pile driving.



Patrick Mulhearn of New York, who inspired the pile driving record.

New York figures largely in the record. Strangely, Patrick Mulhearn, father of Lieut. Lawrence J. Mulhearn, who married Miss Elizabeth Graham, the "Angel of Bellevue," before going to France, put the record bee in Gordon's bonnet.

Mulhearn, a dapper little Irishman, is a New York builder. He was one of the speed innovators that made New York

bricklayers the fastest on earth. A contractor in late years, the war knocked out his business. He has another son, James Mulhearn, drafted in Akron, Ohio, on the French firing line. A third son, Martin, the youngest, has joined the army, or is about to do so.

Last winter on a dare to show that he could hold his end up at Hog Island, no

matter what the labor, Mulhearn came down with a bunch of tenderfeet. Inside two hours, most of the young men quit, but the veteran stuck. Shortly he was advanced, for his aptitude is amazing.

Few words travelled so far as Mulhearn's to Gordon, when he said:

"Do as the New York bricklayers. See who'll drive the most piles."

"I'm the man," said Gordon, with a grin.

Of such men is the working force of Hog Island.

Daily we hear of lost friends or relatives. Even sport has its sadness.

Group 4 was baptized by the blood of a New York inspector Chris C. Arthur, former employee of the Water Board. Accidentally he was killed by a pile. Arthur was keen, alert, but he could not get out of the way. He desired to go to France and took in Plattsburg twice to win a commission. Destiny deals as she wills—poor Arthur died not at the battle front but at Hog Island. He was popular with his fellows, who felt keenly his passing.

Unwise money spent at Hog Island was water carriers' wages during the cold spell. How men drank water is a mystery. Yet, if only two men wanted Mr. Bryan's favorite tippie there would be a devil of a howl and a universal thirst for H₂O.

So Hog Island "abuses" can be explained. Water boys should have peddled "hot ones," for the cold was awful.

Gordon and his crew are crazy to go at steel work. Pace swears he will set up a riveting record that will pull down Bill's pile driving stunt.

Uncle Sam's boss pile man has had all sorts of offers.

Gordon has a genial side—the hardest workers play the merriest. His Hawaiians constructed a jazz band for the crew. The instruments are chiefly made of empty sardine tins, stove polish boxes and the like.

Bill with his hand won't go into vaudeville until the war construction programme has been consummated and the war is won.

The Empty Coal Bin and the Barge Canal

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system may begin sooner than we expected to pay interest to the taxpayers.

Probably no one has given more consideration to the State Barge Canal as a carrier of coal than Major-General William W. Wotherspoon, U. S. A., retired, Superintendent of Public Works in the State of New York; and his analysis of the potential relief through the systematic employment of our newly completed water route is of the utmost interest. Broadly, the General has summed up his conclusion in his statement that "the improved canals are able to transport a large portion of the coal, both anthracite and bituminous, consumed in this State." And to give point to this view of a vital topic the Superintendent of Public Works reminds us that "the Federal Fuel Administrator recently stated that there were 20,000,000 tons of coal at the mines that could not be distributed on account of the inadequacy of railroad equipment." Railroad authorities have confirmed this in their various declarations that the widespread coal famine which has worried all of us has been fundamentally due to a shortage of cars rather than either decreased production or increased consumption.

The production of the mines so far this year is approximately the same as during the first four months of last year. A slight decrease in production in January was made up by a small increase in February and March. For the first three months the production was 135,514,000 tons, an increase over the same period last year of 744,000 tons and a slight decrease as compared with the same period in 1916.

In January this year because of severe weather the production of 43,769,000 tons was 4,000,000 tons less than during the same month a year ago and 2,000,000 tons less than in 1916.

The production in February was 3,245,000 tons greater than it was a year ago, but 1,630,000 less than two years ago. The production record for March shows an output of 48,188,000 tons, an average per working day of 1,753,000 tons.

The mines during the first three months of 1917 had a production of approximately that of the previous year. In the succeeding months there was a gradual increase of 30,000,000 to 50,000,000 tons a month. The same parallel is shown so far this year, although the fuel administration is hopeful that an increased ton-

nage corresponding with the increase of last year will be apparent when this month is finished.

Clearly, then, the coal problem is in the main one of distribution, and the State Barge Canal system is now available to offer channels of transportation which are susceptible of moving rapidly and at moderate cost millions of tons of fuel both to meet demands and to stock up coal yards and domestic bins.

Now get out an atlas and locate Watkins and Ithaca at the southern limits of Lake Seneca and Lake Cayuga respectively. Both of these places are terminal points on the Cayuga-Seneca branches of the State Barge Canal system, and please note how close they are to the northern border of Pennsylvania, and incidentally the proximity of the anthracite and the bituminous coal fields of the Keystone State. A rail haul of less than thirty miles from the New York-Pennsylvania State line make connection with the canal system at points about equidistant from the water route's western, northern and eastern terminals.

Air Raids Cause of New Rules

THE calculus of probabilities, as it is termed in the gentle science of mathematics, is very much to the fore when Boche airplanes hover over Paris. Mathematicians have demonstrated that in Paris at the present season one has about one chance in 50,000 of being killed by air bombs. Astronomers have put the ratio at one in 100,000. Whichever may be correct, the tendency just now on the part of the population seems to be to avoid the one chance. Cellars have never before enjoyed the prominence now bestowed upon them.

Various meetings between the lawmakers and theatrical managers have resulted in safeguards adopted to avoid panics or actual destruction of life such as occurred in the Paris subway some weeks ago. Some theatres have changed the hours of their performance to the two safest hours of the day, from 5 to 7 in the afternoon. Others have provided sufficient underground protection for their audiences.

The municipality of Paris has arranged to notify each theatre or moving picture house by telephone of the danger from the Gothas. The walls of the theatres are

Naturally Gen. Wotherspoon has considered the State as a whole in visualizing the transportation of fuel from Pennsylvania, and the benefits to the metropolis must be considered as a part of this broad scheme. Indeed our relief here is apt to be all the greater if we realize that any diversion of coal tonnage from the accustomed rail routes to the port of New York will by just so much reduce congestion at the focal points, the freight yards in nearby New Jersey. As Gen. Wotherspoon puts it:

"Suppose, however, the rail route into New York ended at Watkins, and the coal travelled thence into the same consuming areas by the barge canal. Watkins is about 190 miles from Altoona. At twenty miles a day a car may make a round trip between Altoona and Watkins in twenty days, ten days less than the all rail route. Therefore the same amount of coal could be transported from the bituminous fields to Watkins for distribution via canal in New York State with two-thirds the number of cars required by the all rail movement. This car saving

would amount to over 5,000 cars a month."

Summing up, the State Superintendent of Public Works says: "A utilization of the canal for the transportation of anthracite and bituminous coal to the extent indicated would therefore result in a conservation of over 18,000 cars monthly, and the equipment thus conserved might transport 900,000 tons of coal a month to other territories not accessible via water routes. During the seven months season of navigation the conservation of so large a number of cars would augment the railroad facilities to an extent greater than demanded for the distribution of the 20,000,000 tons which the Fuel Administrator states cannot be transported on account of the car shortage to territories where it is sorely needed."

While the Barge Canal open season is commonly limited to seven months, General Wotherspoon says he sees no reason why navigation should not be maintained from April 1 to December 1 in normal years—i. e., for a stretch of eight months. In that time, with ample craft available, there is warrant for the assumption that a good deal more than 10,000,000 tons of freight of all sorts could be moved during that operative period. We must look upon the canal system as a car saver, and every ton of freight moved by water along that route will lessen, by just so much, congestion at a number of our ports and industrial centres affected by freight emanating within our commonwealth or passing through it either directly or for transshipment.

Finally, the canal is of prime strategic importance. While this has nothing to do with the relief of freight congestion it does bear directly upon our problem of national defence and possibly the wider field of wartime operations—over there. During the last two weeks of November gone, the Federal Government brought from the Great Lakes to the seaboard, by way of the Oswego-Troy route of the Barge Canal, a number of submarine chasers built at various shipyards on the Great Lakes.

Within the limits of its capacity the State Barge Canal system will add greatly to the flexibility of internal freight movement and will bring home to all of us the possible services which may be rendered by canals and other inland waterways which have been so sadly neglected by us heretofore.

placarded with notices directing members of the audience to the nearest exits to safety—safety meaning the subterranean galleries. The style of underground theatres may even come into fashion as a result of the aerial menace.

Another interesting result is to be found in the special regulations which have been enforced concerning the use of telephones during the progress of a raid. Parisians are requested not to use the telephone while the Boche planes are overhead, as the wires are practically all preempted by special needs, such as calls for doctors, calls to the Fire Department and messages intended to summon relief to districts stricken.

Factory whistles and sirens are affected by the rules recently promulgated. The warning sirens at present used in Paris to notify people of the coming of the air raiders are very much like many of our own factory calls in the morning. They are especially similar to the brooding notes produced by fire engines as they thunder to their work. The prefect of police has issued the order that no factory whistles or sirens, electric or steam, are to be operated except to warn those near by that air raiders are coming.