

MAKES NAVY CLOCKS TICK IN TIME WITH THE STARS

Washington, Jan. 24—With help of a periscope from an old submarine and an idea from a battleship powder magazine, Capt. J. F. Hellweg has turned the United States naval observatory into the most accurate time recording station in the world.

Upsets Old Theories

His new system of recording the time from the stars has been in use six months, but the captain remained chary of revealing its details until today. Several foreign governments displayed so much interest in his device, which split seconds into ten-thousandths, that he hesitated about making public their construction until they were perfected and protected by patents.

Capt. Hellweg junked ordinary astronomical theories in developing the apparatus which obtains time within 87 ten-thousandths of a second from absolute accuracy. In place of the theories, he substituted devices which had worked well on battleships during his years on the China sea.

The first thing the captain did was to take all the springs from all the clocks in the observatory. In place of the springs he substituted pendulums and other devices which made use of the force of gravity. Gravity always exerts the same force while a spring is more temperamental than a chorus girl.

Camera Replaces Man

Capt. Hellweg also took the man away from the telescope, because the man sometimes makes mistakes, and substituted a camera, which always sees accurately.

Finally he had to find a way to keep his springless clocks running without interference of temperature changes, vibration or static electricity. The captain thought instantly of the powder magazine on his old battleship.

The chief of the observatory designed a replica of the powder magazine, enclosed it in a gigantic thermos bottle of concrete and sunk the whole thing far in the ground. There the clocks tick in time with the stars.

If an attendant had to walk into the jumbo hermos bottle to see the clocks, the vibrations of his footsteps and the heat from his hands would ruin their synchronization. So the captain installed a submarine periscope above the ground, through which the clock may be seen.

How System Works

The system works like this:

Light from a distant star flashes at regular intervals through a telescope upon a piece of specially sensitized paper, which moves slowly under the lens. A simple equation in trigonometry translates the distance between the spots of starlight into intervals of time. A complicated electrical control transfers this record of absolute time to the master clocks in the thermos bottle.

They in turn control "slave" clocks, the impulses of which finally are transferred by wire and wireless all over the world.

"We think we're doing pretty well," said the blue-eyed captain, an old school sea dog. "We're aiming at perfection. Though we may not reach it, we ought to be doing considerably better before another year has passed."

which formed the southern boundary of Southwark three centuries ago. Rose alley devotes the site of the famous Rose theater, which, with the Globe, the Swan and the Hope, made up the quartette of playhouses that flourished in Southwark in Shakespeare's day.

Other ancient names that still survive in this part of the metropolis are Skin Market place, Cardinal Gay alley, Love lane, Castle yard, Moss alley and White Lion alley. Most of these streets now are being obliterated.

The exact site of the Globe theater, the best known of the Elizabethan playhouse, is still a matter of dispute, but it is believed to have stood near the southern end of the modern Southward bridge over the Thames. It was built in 1599 on ground once occupied by a bear-baiting ring, and it was here that many of Shakespeare's plays were given their first production. The old Globe had a thatched roof which caught fire during the opening performance of his "Henry VIII" in 1613 and the whole theater was burned down.

Oklahoma City, Jan. 24—"Our mothers told us to plead guilty and take the punishment", Vernon Ward, 19, told Judge R. P. Hill. Judge Hill sentenced Ward and Eugene Ledford, 16, to one year each in the Granite State penitentiary for theft of an overcoat.

TASCHEREAU PROMISES OLD AGE PENSIONS

Tells Labor Men That the Measure Will Come When Finances Are Sounder.

Quebec, Jan. 23—A definite promise from Premier Taschereau that, as soon as the resources of the province warrant it, the Government will introduce measures to operate old age pensions in the province of Quebec, and will increase the indemnities now paid to workers who are victims of accidents, today marked the visit of the annual delegation of the International Trades Unions to Quebec.

Mr. Taschereau following Hon. C. J. Arcand, Minister of Labor, who had welcomed the delegates and promised them his hearty co-operation, joined his thanks to those of his colleague for the courteous manner in which the various resolutions had been submitted to the Government for consideration.

"There are many excellent things included in your memorandum," Mr. Taschereau said, "and if it was possible, the Government would be only

too happy to give effect to your demands. But the credit of the province must be maintained at all costs, and until better times occur the Administration must be wary of increasing the financial responsibilities of the taxpayers.

Deficit Last Year

"There was a heavy deficit last year, which would have been much greater if the Government had given effect to some of the demands of the trades unions.

"When in Ottawa, I was complimented by colleagues from other provinces for having kept the expenditure of the Government within the bounds of the resources as much as possible. The credit of Quebec has been maintained, however, and will be maintained whatever the costs and sacrifices. However, when the finances of the province are in better shape I promise you that the Administration will introduce in the province a system of old age pensions and will increase the indemnity to workers victims of accidents. As for your other demands, you may rely on us to give them the consideration they deserve."

Premier Taschereau and his colleagues received the delegation in the council chamber and for nearly two hours listened to the presentation of the various resolutions, interrupting the speakers now and then, to give an opinion or to ask for additional information. He was accompanied by Hon.

C. J. Arcand, Minister of Labor; Hon. J. E. Perrault Minister of Roads; Hon. L. A. David, Provincial Secretary; Hon. J. A. Francoeur, Minister of Public Works in charge of unemployment; Hon. Adelard Godbout, Minister of Agriculture; Hon. R. F. Stockwell, Provincial Treasurer, and Hon. Hector Leferte, Minister of Colonization.

Howard Marsh on "Meet the Artist" Program Saturday

Howard Marsh, sellar radio and operetta tenor, will offer several songs from his outstanding stage shows during his appearance on Bob Taplinger's "Meet the Artist" broadcast over the WABC-Columbia network, Saturday, January 27, at 7:00 P.M., A. S. T. He will sing numbers from "The Student Prince" and "Show Boat", in which he played leading roles.

Marsh, heard on the Buick programs Monday and Thursday evenings, currently is confining his professional activities to radio. This enables him to live the life of a country gentleman on his estate at Rumson, New Jersey, whence he commutes for his broadcasts. During the interview he will reveal his interesting experiences in some of the best known musical productions of the last ten years.

SETTLEMENTS IN NOVA SCOTIA UP AGAINST IT

Halifax, Jan. 23—Supplies cut off by barriers of snow and ice, several settlements in Northern Victoria County were describes as "almost destitute" in reports from Cape Breton to the capital today.

Driving snowstorms followed by a cold wave had isolated villages and caused until hardship, it was stated. Coastal ships have not been able to enter the Victoria ports for weeks, and the merchants have no flour, kerosene or other winter supplies, and no feed for their horses and cattle.

Serious results may be expected, it is said, unless ice-breakers arrive soon.

Two school teachers, Ruth and Mildren Lamey, were forced to walk 30 and 45 miles through snow to reach their schools following the Christmas holidays and the blockade is much heavier now.

Cold that held Nova Scotia in its grip on Sunday and yesterday with temperatures ranging from 16 below zero at Halifax to 42 below at Clark's Harbor had moderated today but numerous harbors were frozen and the fishermen around Liverpool and Lunenburg were unable to move their boats.

Service Interrupted

New Brunswick was blanketed with snow and many train schedules were interrupted. Fourteen passengers from St. Martins ended a tedious journey to Hampton last night 60 hours after starting the 30 mile trip on Saturday morning. Locomotives were changed twice to haul two day coaches through huge drifts and other difficulties had to be overcome before the delayed passengers reached their destination. They slept in coaches two nights. Provisions were supplied from St. Martins.

Alphonse Savoie, one of two youthful trappers who became lost in the New Brunswick woods, was found frozen to death near Campbellton. His companion, Angus Jean, was taken to hospital suffering severely from frost bites.

The cold was painfully startling to not only the crew but a cargo of monkeys aboard the steamer Comliebank from Calcutta and Far Eastern ports, which unloaded large consignment of tea, spices and other goods at Halifax.

SHAKESPEARE HAUNT WILL BE POWER SITE

London, Jan. 24—In an area of the borough of Southwark, where Shakespeare made his home and playwrights who foregathered in the taverns of Bankside, one of the huge power stations of the national electricity "grid" system soon will be erected.

Incidentally, the power produced will light the homes of thousands of Londoners who go to the Old Vic nowadays to see the plays of the bard which were produced in Elizabeth's reign at the Globe theater. That famous playhouse was located in the district where rows of buildings are being demolished to make room for the big power station. It was in this part of South London, too, that John Harvard founder of Harvard college was born.

What was once the Southwark bear gardens—a favorite haunt of the sporting fraternity for nearly 300 years—will be the actual site of the power station significant of the new England in the making.

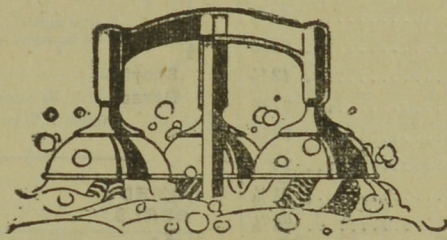
Modern Southwark is one of the poorest and most congested districts in London. Digby warehouses and factories now occupy most of the ground that was known to Shakespeare and his contemporaries, but the innumerable tortuous alleyways that meander below the factory walls generally mark the lines of paths that have existed from the Elizabethan times, when Southwark was almost in the country.

Although only a few buildings in the bankside area of Southwark date back to the days of Queen Bess most of the streets and alleys retain their original names. One thoroughfare still goes under the name of Bear Gardens and is believed to mark the site of London's former bear-baiting ring.

Park street, where Shakespeare lived when he first joined the convivial crowd at the Globe theater, Southwark, was Maiden lane in the poet's lifetime. Its present name is derived from the bishop of Winchester's park

The monkeys were bound for New York. More than 100 died during the long voyage while in Halifax three of the surviving animals ventured on deck, but as soon as the frost struck them they scampered for shelter. Later they were found in the very bottom of the ship, where they screamed for hours.

A New Perfected VACUUM CUP WASHER



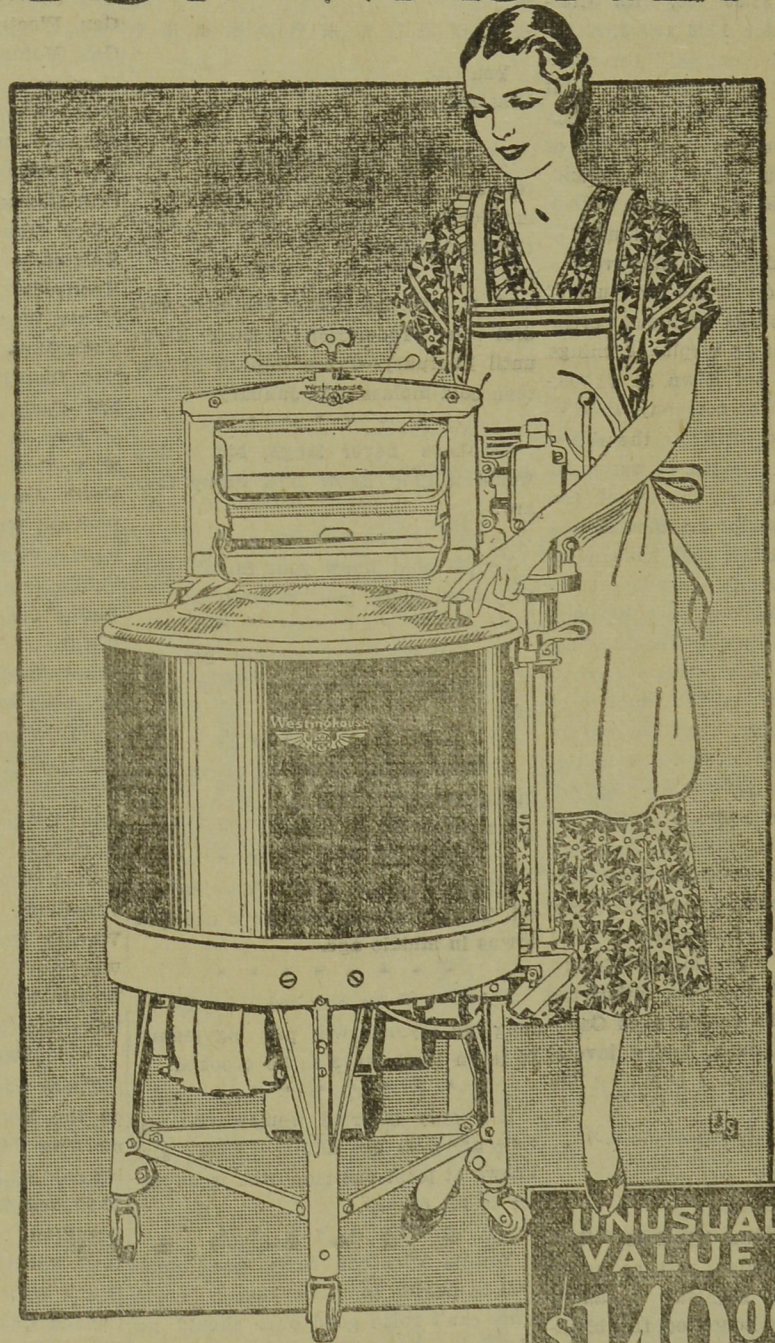
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