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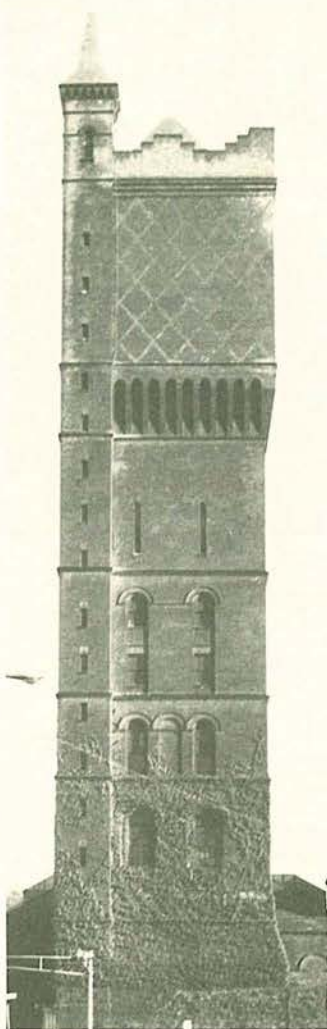
September 1977

WEEHAWKEN TOWER THREATENED

While the architecturally elaborated standpipe has been a common attribute of large 19thC municipal water-supply systems on the Continent, in Gt. Britain and N. American it has been a rare breed, the head pressure on the mains supplied directly by the pumps if not available from a high reservoir. The most celebrated American tower is, of course, Chicago's, built in 1869, a survivor of both the Great Fire of 1871 and the vagaries of urban progress. Of somewhat less celebrity but quite as elegant is the brick tower erected in 1883 by the Hackensack Water Co. atop the Palisades in Weehawken, N.J., for the supply of that town and Hoboken. It was regarded a monument in its time and has remained so, serving incidentally as a navigational landmark for ships on the Hudson.

The tower has been likened to the Palazzo Vecchio in Florence, with a touch of the Moorish in the diagonal patternwork of the tank section, and perhaps even a whisper of Rhenish in the steeple. Whatever its lineage, it is deeply loved by its neighbors, who have risen up in righteous fury over a recent threat to the structure in the guise of a dubious benefit that no one seems to need or want. A private developer proposes a high-rise complex of senior-citizen housing, in which, according to the tower's champions, he is propelled less by feelings of humanity than by the prospects of outrageous returns, guaranteed by the feds.

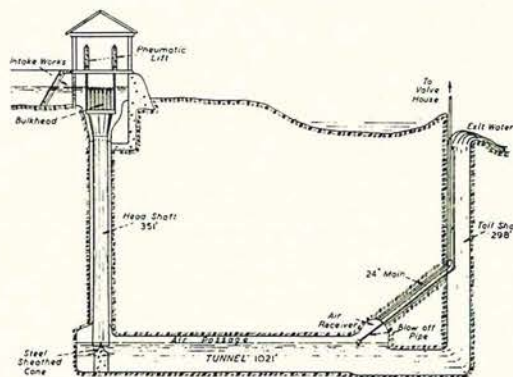
The local outcry, from all sectors, has been vociferous, and universal in its dismay over demolition of what is seen as a vital element in the community's physical fabric and sense of identity. The preservation campaign, being directed by architectural historian/critic Theodore Conrad [SIA] of Jersey City—recently appointed the city's Historic Commissioner—has centered on an attempt to have the tower placed in the Natl. Register.



Theodore Conrad photograph.

THE RAGGED CHUTE HYDRAULIC COMPRESSED-AIR PLANT

In 1903, blasting operations at Cobalt Lake in northern Ontario uncovered a rich silver ore deposit. In the boom which followed, cheap power became the key to extracting large quantities of silver at reasonable cost. At first, steam was used to power most equipment but coal was expensive in the region. Gradually, consumption of electricity grew and in 1909-10 was complemented by the development of an unusual "machineless" compressed-air plant at Ragged Chute on the Montreal River, nine miles SE of Cobalt. This plant, one of a very few to be built on the design principles of C. H. Taylor of Montreal, is the last of its type in operation. It is owned now by Ontario Hydro. Rock fissures several hundred feet below ground have diminished the efficiency and may require its shut down unless a way is found to fix the problem at reasonable cost.



Section through the Ragged Chute compressor. Ontario Hydro drawing.

Taylor's plants were colossal versions of the ancient "trompe," in which air was compressed by a water column falling in a closed pipe, the air being entrained at the top and freed in a closed chamber at the bottom. The Cobalt Hydraulic Power Co. built at a point where the river tumbled down over 1000 ft. of short rapids in a total fall of 54 ft. To harness the river a 660-ft. concrete dam diverted the water into a large basin, just below the surface of which two 16-ft. diam. intake heads, consisting of 66 14-in. diam. pipes, admitted water into the 351-ft. vertical shaft. When the rushing water entered these pipes it drew in and became mixed with air bubbles. Its velocity was increased by contracting the diameter of the intakes from sixteen to nine ft. When the water reached the bottom of the shaft it struck two steel sheathed concrete cones which reduced the velocity and liberated most of the air. The water was then diverted into a horizontal, 1,021-ft. tunnel where it lost its momentum and the remainder of the air was set free. This gathered in the dome of the tunnel and was piped, under a pressure of c125

Postscript. The Delaware Aqueduct, whose unfortunate accident was reported last issue, is again whole and receiving traffic, reports owner Albert Kraft [SIA].

p.s.i., to a valve house at the surface.

The air-depleted water flowed along the tunnel and up a return shaft until it emptied into the river 48 ft. below the intake basin. When more air was produced than was being used, and the air pressure rose above 125 p.s.i., the water level in the tunnel was depressed and the excess air blown out, shooting a fountain of air and water over 100 ft. into the air.

From the valve house the compressed air was transmitted to Cobalt in 20-in. pipes. From there 12 and 6-in. feeders radiated to the customer mines. Air was sold by meter at \$.25/1000 cu. ft. to the large mines and at a graduated scale, based upon the number of drills in operation, to the smaller customers. It was not only cheaper than steam or electric power, but was free of noxious gases, and in curious contrast to its means of generation, exceptionally dry, important in winter work.

Other Taylor compressed air plants were at Magog, Quebec (1895), Ainsworth, British Columbia (1897), Peterborough, Ontario (1899), and the Victoria Mine, Ontonagon Co., Michigan (1906). S.A.O.

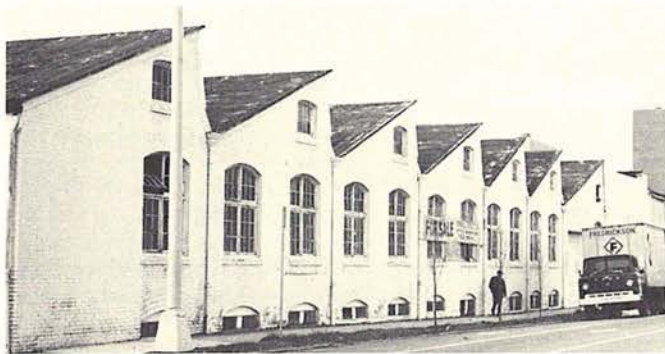
SHAMROCK MILLS (Hanes Hosiery Mill No. 1)

In 1911 Shamrock Knitting Mills, a manufacturer of infants' and men's cotton socks, built a one-story brick building on Marshall St. in Winston-Salem, N.C. The ground floor was a half level below grade, and the main floor was capped by a sawtooth roof which illuminated the knitting rooms. Although the building's architect is unknown, it closely resembled the 1902-03 White Oak Plant of Cone Cotton Mills in Greensboro, N.C. designed by Providence, R.I. mill architects C.R. Makepeace & Sons.

The Mill was divided into seven sections: knitting; packing; drying; dyeing; and boarding (giving shape). The large street-level knitting room housed the knitting machines as well as the looping and trimming equipment. Looping machines secured the toe of the stocking and trimmers cut the loose threads. The heels, however, were trimmed by hand. In the basement the gray goods (undyed hosiery) were stored, dyed and boarded. Each sock or stocking was boarded by stretching it over a cardboard form.

In 1914 Shamrock became Hanes Hosiery Mills, and in 1918 the firm converted to ladies' cotton—later rayon—hosiery. By 1926 Hanes had outgrown the Marshall St. plant and moved to a larger one on W. 14th St. They experienced dramatic growth in the 1930s with the development of nylon, producing the first seamless stockings in the branded retail market by using circular knitting machines. Today the firm is one of the world's largest hosiery producers.

The 1911 structure now stands vacant and is up for sale. The Historic Preservation Fund of N.C., Inc. currently is preparing a Nat'l Register nomination for the building. G.S.T.



CONTRIBUTORS TO THIS ISSUE

Field Curry, Pittsburgh; Bernard A. Drew, Housatonic, Mass.; Robert M. Frame III, Minn. Hist. Soc.; Stephen A. Otto, Ontario Heritage Fndn.; Theodore A. Sande, Natl. Trust for Hist. Preservation; Peter H. Stott, Columbia Univ.; Gwynne S. Taylor, Historic Preservation Fund of N.C. With thanks.

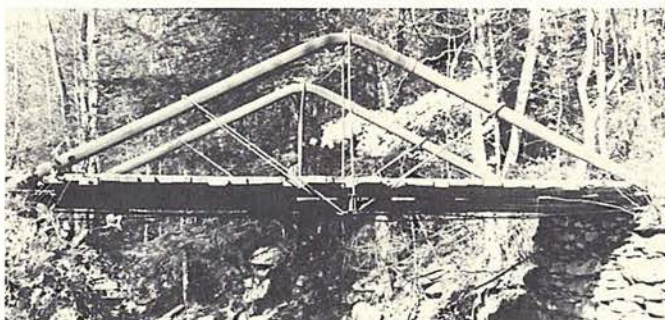
THE UNUSUAL IRON-BRIDGE DESIGN OF THE BI-MONTH

Under the above heading—which we introduce with some hesitation but can't think of a catchier one—we propose regularly to publish accounts of surviving examples of some of the more obscure designs for iron truss bridges that abounded in the late 19thC. The majority, if not all, of these were highly localized and are not apt to be found much beyond their area of origin. Perhaps the most interesting of this family are the bridges formed of sections not intended for structural work: today tubing; next issue railroad rails.

BALL'S IRON-PIPE BRIDGES

Charles H. Ball (1861-1928) built tubular truss bridges in a small shop in E. Windsor (Berkshire Co.), Mass., in the 1890s. He grew up on a farm outside the village, and worked for a number of years as a mechanical engineer with the Stevens Mfg. Co. of Cummington, a maker of wooden brush handles and pencils.

Ball became a partner in a machine shop in E. Windsor c1888. A few years later he began to manufacture and market iron bridges. Several were sold to neighboring towns in western Mass. and southern Vermont. Two of the bridges were erected in Windsor—they cost \$200 each—but one was destroyed, apparently in a turbulent flood in 1938. Presumably other Ball structures met similar fates, as only four are known to exist today.



The Ball "tubular" truss bridge at Cummington, Mass. Donna Drew photograph.

Ball described his structures in a sales pamphlet: "To meet the demand for a low-priced iron bridge having all the important qualifications of strength and durability found in the best iron bridges now made, I have perfected a pipe truss bridge which is shown in the sketches. The question of artistic or architectural effect are not considered in planning this bridge. The main point being to produce a strong cheap bridge that will last as long as any iron bridge and cost but little, if any, more than a good wooden bridge.

"The pipes used are not the ordinary gas or steam pipes found in the market, but are heavier and are made for special purposes requiring great strength. The beams and floor joists are of steel and the rods and bars of best double-refined iron. Sidewalks will be added when desired. Please send dimensions of bridge needed and estimated cost will be furnished by letter, or in person . . ."

Here are brief descriptions of the surviving Ball bridges. All except Cummington's are in Berkshire Co.:

The **Dalton bridge** spans 41 ft. and is the longest. An 1895 town report indicates the cost was \$386 for the bridge, \$472.06 for the substructure and railing. This is the only structure still bearing the maker's plaque, which reads: "Built 1894 by C.H. Ball, East Windsor, Mass. Patented July 25, 1893. S.L. Young, F.L. Warren, G.T. Pike, Selectmen of Dalton, Mass." [UTM: Pittsfield East 530051.]

The 34-ft. **Hinsdale bridge** has no railing or other accessories; is located near the source of the Housatonic River. [Peru 556953.]

Cummington's (Hampshire Co.) 28-ft. triangular bridge was moved to its present site in 1924. [Worthington 721050.]

Windsor's 31-ft. span was constructed of pipe smaller than the other examples (5.75" vs. 6.75" diam.), and has a railing on one side. [Plainfield 648106.]

Bridge building apparently was not a profitable venture, for Ball purchased a portable sawmill in 1895 and began a woodworking business which thrived until his death. B.A.D.

THE WORK OF IA

EATON WHEELHOUSE REMAINS DISCOVERY

Excavations carried out for the third season (1977) at the 175-year-old Eaton (Hopewell) Furnace site near Youngstown, Ohio [SIAN May 77:9] have revealed the remains of a wheelhouse in the area c40 ft. downslope from the furnace. The structure at one time housed a waterwheel-driven barrel bellows.

Of particular significance was the discovery beneath this structure of a thick layer of slag, cinder, charcoal, and large pieces of refractory-sandstone furnace lining. This stratigraphic discovery indicates that the wheelhouse came after the furnace debris on which it rests and supports the theory that there were at least two different means employed by the Eaton brothers to blow their furnace during its short life. The earlier was by a trompe, a relatively inefficient technique which provided a cold, wet blast. [See *Ragged Chute*, p. 1. Ed.] The trompe was replaced at some point by the blowing tubs. Other findings show that water was conveyed to the wheel by a sophisticated duct system from a headrace dug for that purpose. Dr. John White, project director (Youngstown State Univ.), suggests that this technical improvement may have been what prompted the Eatons to dub their furnace the "Hopewell", as the better-known furnace of that name in Eastern Penna. was similarly blown. Work is being done to establish when this switchover took place.



The wheelhouse remains. John White photograph.

1977 WISCONSIN BRIDGE SURVEY

Last summer a selective survey of metal-truss highway bridges was carried out in Wisc. under the joint auspices of the Historic Preservation Divn. of the State Historical Soc. and the National Trust for Historic Preservation. George Danko [SIA], doctoral candidate in the Dept. of American Civ., Univ. of Penna., and a National Trust summer intern, was granted full responsibility for the project.

The seed for the survey actually was planted at the end of the summer of 1976, following the completion of extensive research by Danko which resulted in a paper titled, *The Development of the Truss Bridge 1820-1930, with a Focus Toward Wisconsin*. To test



Turtleville Bridge, Fond du Lac. In the National Register largely as a consequence of the Danko Survey. Historic Preservation Division, State Historical Society of Wisconsin photograph.

some of the conclusions of the paper and discover what metal truss spans remained in the state, a survey of selected counties was decided upon.

The SE portion of the state was chosen as the primary focus of the survey. Threatened by suburban growth and modern, large-scale farm machinery, the simple truss bridge was rapidly disappearing from that area. Two central western counties also were chosen for examination. It was hoped that these, because of their more rural character, would yield the closest approximation

to patterns of distribution at the beginning of the 20thC.

In total, 112 truss bridges were identified in 13 counties. From this group, 14 were chosen for possible inclusion in the State or National Register. The significance of many of the spans is rooted in the firms that were fabricating bridges in the late 19th and early 20thCs. An 1877 Pratt through truss, the oldest span discovered in the survey, is in this category. The structure was built by the Milwaukee Bridge & Iron Works, one of the oldest and largest of midwest bridge companies.

ELECTRIC TRACTION

END OF THE LINE FOR THE SOUTH SHORE? The Chicago, South Shore & South Bend RR, with a line of c80 miles between Chicago and South Bend, Ind., is possibly the last true interurban in the U.S. It has survived, the Electric Railroaders Assn. stated recently, because it serves Chicago as a commuter railroad, with a strong freight business as well. Between Chicago and Gary, Ind. the area is heavily industrialized. "But from Gary eastward to South Bend," the Assn.'s newsletter noted lyrically, "the line is unmistakably an interurban; a single track traversing the Indiana sand dunes country and past small stations where patrons must literally flag down a train to board. In Michigan City, the line runs on city streets, as did most of the interurbans, before continuing across the farmland to South Bend."

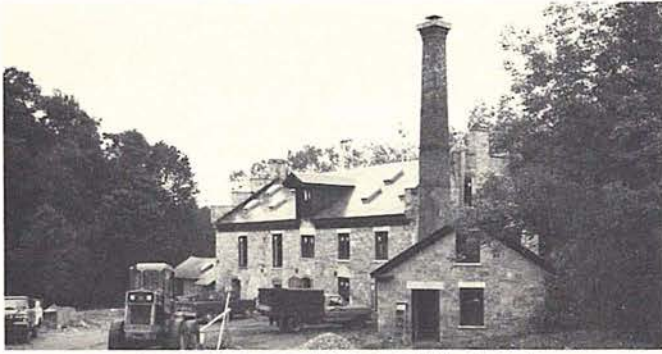
In October 1976 the railroad petitioned the Interstate Commerce Commn. to abandon passenger service as of 8 December 1976, citing continuing losses, declining ridership, and deteriorated stock. At issue, claims the railroad, is the willingness of the Regional Transportation Authorities to pay for passenger service. Needed is approximately \$34 million for capital improvements (80% from an UMTA grant) and coverage for a \$2.6 million operating deficit. After a series of public hearings in January, the ICC announced in April extension of the railroad's passenger service for another ten months. If by that time the state legislatures have not acted to provide the funding needed, service will come to an end. P.H.S.

HOW FAST IS FAST? Some readers of SIAN May 77:6 may be wondering just how fast a "fast car" (TCRT No. 1300) really is. The details are in Russell L. Olson's superb volume, *The Electric Railways of Minnesota* (1976. Avail: Minn. Transportation Museum, Box 1300, Hopkins, MN 55343.) Originally 37 mph, electrical modifications when the car was rebuilt in 1931 raised the speed to 42 mph. In that year, TCRT's system-wide average schedule speed was 13.5 mph, fastest of any comparable U.S. urban street railway. The "fast cars" resulted from TCRT's desire to improve service on the three major St. Paul-Minneapolis corridors: the "Interurban," Como-Harriet; and Selvy-Lake.

Although 1908 is given as 1300's construction date, TRCT's aggressive rebuilding program (biennially for cars in heavy service) means that there probably is nothing left of the original car except the number and the underframe, and there is some doubt about the latter. F.C.

GOING BROKE SAVING WATER

You'll recall that the water closet was placed on a solid commercial footing — if that's the right word — with the introduction c1870 of the high flush tank, which by dropping the water charge about five feet imparted to it enough velocity that a satisfactory flush was produced with only about three gallons. The more slightly "low" tank of recent times, with a lesser gravity effect, requires typically about six gallons. In response to water shortage in various regions — especially Calif. — a Santa Ana firm (Heads Up, Inc.) has resurrected the high-tank potty, their revivalist product having a guaranteed rating of only 2.25 gallons per mile, uh, flush. It is in period, to be sure, with various "decorator" features, and all this will set the water conservationist purchaser back a mere \$545 for the standard model, \$1,100 for the deluxe. At the turn of the century, such outfits typically went for prices like \$18.50 (for the rather plain *Nubium*) and, at the most, \$42.50 (for the more tasteful *Doradus*), F.O.B. Charlotte, N.C.



HAVILAND'S PRIVILEGE

Paper Mill to Apartments

Timothy D. Smith [SIA] & Assoc., whose conversion of the old N. Bennington (Vermont) RR Station to Village offices and their own architectural offices is featured in the SIA handbook, *Working Places*, have undertaken an even more ambitious renovation project in the same Village. This one involves converting the stone ruin of a paper mill to six condominium-cooperative apartments.

The site's industrial history dates back to 1770 when Joseph Haviland obtained title to the property and also acquired a right (privilege) to use adjacent Paran Creek water for powering a grist mill. It is said the mill provided corn meal to American forces before they took part in the 1777 Battle of Bennington.

In 1832, his successor began construction of the stone structure that Smith's firm is working on. An inscription over the entrance reads: "The Immoveable Pillars of the Independence of our Country are Agriculture and Domestic Manufactures, Edward M. Wellington 1833," apparently a reconciliation of the Jeffersonian and Hamiltonian debate of 40 years earlier. Although known as the "Stark Paper Company" (wallpapers) for well over a century, the building has served as a starch and sawmill, and a machine shop as well. Industrial activity ceased in 1927 and the mill was abandoned except for a small portion that Fred Welling, great-grandson of Edward, used as an office for many years.

The property was bought in 1971 by a partnership composed of Mr & Mrs William R. Scott and Mr & Mrs Lucien M. Hanks. They also obtained the old Red Mill site on the opposite bank of the creek with the thought of saving the entire industrial complex and conserving the handsome landscape on which it stands. The Smith firm was hired soon after to study the feasibility of rehabilitating the structures. This led to the Red Mill becoming adjunct service division offices for the nearby Prospect School and development of the condominium scheme. In large part the latter grew out of Smith's recognition that only a group of investors could afford the high cost of renovation. Construction started in 1973. Exterior work is substantially complete, but the interior has intentionally been left unfinished so that new owners can have a say in their apartment's treatment. It is anticipated that units will sell at \$79-99,000. Residents will govern themselves as a mini-village within a village, so that Haviland's Privilege will have its own board of selectmen, one member from each household.

With its quiet millpond, bubbling waterfall, and dense tree-lined bank across Paran Creek, the apartments seem placed in an idyllic natural setting, far removed from busy everyday society. Actually, Haviland's Privilege is along a roadway and within walking distance of the Village's commercial center and Bennington College. T.A.S.

Ohio. Cincinnati's 45 year-old **Union Terminal** is proposed for a \$4 million conversion to commercial recreational facilities, including a 66 x 132 ft. elliptical ice rink, roller rink, restaurants, and a variety of shops. The whole thing is to be known as—so help us—"Oz". The terminal has been out of service for four years and was purchased from AMTRAK and the collapsed Penn Central for \$1 million. If work goes ahead as planned, the city will lease the building for \$1 per year to the developer, Joseph Skilken & Co. It is thought that the use envisaged will serve to reinforce a parkway concept linking it to Cincinnati's Music Hall.

LANDMARKS: ENGINEERING, NATIONAL REGISTER & CONTROVERSY ASME & ASCE Landmark Designations During 1977

THE WILKINSON MILL, Pawtucket, R.I., built 1810-11, by Oziel Wilkinson, presently under restoration by the Slater Mill Historic Site [SIAN July 77]. Site of the machine shop of David Wilkinson of the celebrated family of metal workers and textile manufacturers. By ASME.

GREAT FALLS RACEWAY AND POWER SYSTEM. Paterson, NJ (20 May), ASCE & ASME. First operational in 1794 and modified through 1838, the raceway system at the 77-ft. Great Falls of the Passaic was developed by Pierre Charles L'Enfant and Peter Colt to provide power for the mills of Alexander Hamilton's Society for Establishing Useful Manufacturers. Remaining in continuous use through steam and hydro-electric power evolution, the site has supported the Colt Gun Mill, Rogers and three other locomotive works, numerous silk and other textile mills, Holland's submarine experiments, Wright Aeronautical Corp., and a vast miscellany of other industrial enterprises. The district, threatened by the Two Bridges-Ramapo Water Diversion Plan, is the focus of extensive adaptive use and restoration.

Publications on the above sites are available gratis from ASME HQ, 345 E. 47th St., N. Y. C. 10017, Attn: Carron Garvin-Donohue. That on the Wilkinson Mill is by Patrick M. Malone and Gary Kulik; that on Paterson is by Jack R. Stokvis, all SIA. Also available: Historic Civil Engineering Landmarks of San Francisco & Northern Calif., from ASCE, same address, attn: Herbert R. Hands.

USS OLYMPIA — VERTICAL RECIPROCATING STEAM ENGINES. Philadelphia (30 March), ASME. Built 1891-95 by Union Iron Works, San Francisco, the 340-ft., 5780-ton cruiser was one of the first naval ships with vertical engines and with the Battleship *Texas* [SIAN Jan 76:2], the only surviving. Her twin screws (14'-9" diam.) each were driven by a three-cylinder triple-expansion engine, the pair delivering 16,850 hp at 139 rpm, giving a top speed of almost 22 knots. Decommissioned in 1921, she has undergone active restoration since 1964 by the Cruiser Olympia Assoc.

CRAWLER TRANSPORTERS OF LAUNCH COMPLEX 39. Kennedy Space Center, Fla. (3 Feb), ASME. The two transporters (built 1965 & 1967 by Marion (Ohio) Power Shovel Co.) are the largest ground vehicles ever built. Each has four trucks; each truck has two tracks, with each track the size of a Greyhound bus, using 57 one-ton treads. The trucks are powered by four 1000-kw DC generators driven by two 2750-hp diesels. Two 1065-hp diesels power two 750-kw AC generators for leveling, jacking, and steering systems. Capable of toting a 12-million pound rocket & launcher at 1 mph and expected to function into the 1990s.

MONONGAHELA & DUQUESNE INCLINES. Pittsburgh (11 May), ASME. These are Pittsburgh's two remaining inclined railways (of 17 orig.). The Monongahela, first known passenger incline in Pa., was built 1869-70, rebuilt 1882 in steel, and again in 1935 when Otis electrical equipment replaced the original steam winding plant. It traverses 640 ft., rising 370 ft. at 38°. The Duquesne was built 1876-77, rebuilt 1888 in steel, and converted to electric power in 1932. It travels 793 ft, rising 400 ft. at 30°. Both are 5-ft. gauge. The "Mon" is owned by Allegheny Co. Port Auth.; the Duquesne by the Soc. for the Preservation of the Duquesne Heights Incline [SIA].

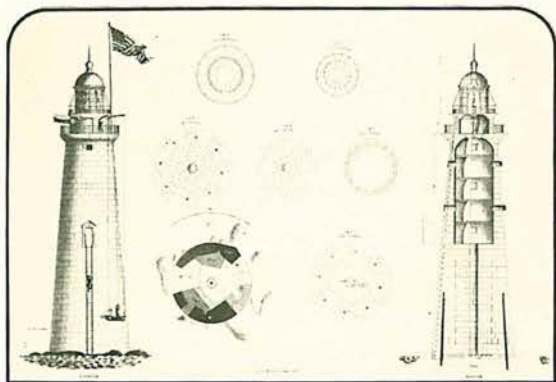
PRATT INSTITUTE POWER GENERATING PLANT. Brooklyn (20 April), ASME. Of particular note in the 1887 plant are the three Ames Iron Works (Oswego, NY) steam engine-generators which in 1900 replaced the original engines. Still in service, each—with a single 14x12-in. cylinder—operates at 270 rpm with 120-psi steam, directly connected to GE 75-kw generators. Pratt has collected numerous other power artifacts which are kept in the power plant area. The installation is generally regarded as the oldest continuously-operating steam power plant in N. America. Its survival is due solely to the efforts of SIA member Conrad Milster, Pratt Chief Engineer.

FIVE TON "PIT CAST" JIB CRANE. Birmingham, Ala. (31 March), ASME. Built 1905-06 for use in "pit-casting" iron pipe at the American Cast Iron Pipe Co., where it remains in general service, the crane is the last of six. They were among the first of the type to use electric motors (DC), and this example possibly is the last operating in the nation. The cranes worked in pairs, back to back, each serving a 25-ft. deep pit where pipes were cast by the vertical, dry-sand system, superseded in the 1920s by the centrifugal method.

FAIRMOUNT WATER WORKS 1815-1911. Philadelphia (29 March), ASME. The present 1820 Greek Revival buildings at Fairmount on the Schuylkill are the continuation of Phila's. water works, dating to the 1799 steam-pump and wooden-pipe system. The 1820 water wheel drive (converted to turbine 1851-66) replaced an 1817 explosion-plagued 200-psi high-pressure steam system designed by Oliver Evans [see also SIAN Jan 76:1].

NEW YORK CITY SUBWAY. (18 July), ASME & ASCE. William Barclay Parsons was chief engineer for the nation's first major rapid transit subway (the "Broadway Line"), built 1900-04. Five types of construction were used: concrete jack arches between steel I beams for the roof and sides; flat reinforced-concrete roof supported by steel bulb-angle columns; concrete lined tunnel, both in rock and open cut; cast-iron-shield-driven, segmental tubes used under rivers; and steel-viaduct elevated structures. The system's power plants consumed 250 tons of coal per hour to produce 100,000 hp for normal operation.

MINOT'S LEDGE LIGHTHOUSE. Off Cohasset, Mass. (28 June), ASCE. Built 1855-60 to a Joseph Totten design, the 114-ft stone lighthouse replaced an 1850 iron tower that was swept away. The new tower consists of 2300 tons of granite in two-ton blocks, with the first course laid on the ledge two ft. below lowest tide. The 1894 lantern flashing 1-4-3 (coding "I love you" for passionate shore-side couples who designated it "Lover's Light") was automated in 1947.



1860 lithograph of Minot's Ledge Light. Library of Congress.

Landmark Hydro-electric Central Stations: Who Really Was First?

When on 30 Sept 1882, the Edison "K" type dynamo first brought a glow to lights at his two paper mills and home in Appleton, Wisc., company president H. J. Rogers undoubtedly was mightily pleased, believing he was witnessing an event of profound historical importance: the operation of the world's first hydro-electric central station.

Ninety-five years later, the American Soc. of Civil Engineers, the American Soc. of Mechanical Engineers, and the Inst. of Electrical & Electronic Engineers all were equally pleased to announce in an 8 Aug. press release that they were scheduling a 15 Sept. ceremony to designate the Vulcan Street Plant, Appleton, a National Historic Civil, Mechanical, & Electrical Engineering Landmark, on the premise that it was indeed the world's first hydro-electric central station.

What president Rogers did not know—and ASCE, ASME & IEEE never discovered—is that a mere 24 days previous, on 6 Sept, 1882, the Minnesota Brush Electric Co. went on stream at St. Anthony Falls with their Francis turbine driving a line shaft to four 40-light and one 20-light Brush arc-light dynamos which, in turn,

put out 100 kw of commercial power via overhead wires to illuminate saloons and shops on Minneapolis's Washington Ave.

The engineering societies also did not know that in 1969 the Engineers' Club of Minneapolis had dedicated a plaque to the St. Anthony site as the first hydro-electric central station, although they did limit themselves to the Western Hemisphere, noting the existence of a plant at Godalming, Surrey, England, that was in operation by 18 Feb, 1882.

Could it be? Appleton not only was not first in the world, but perhaps even a lowly third—and must settle for mere second in the Western Hemisphere? R.M.F.

National Register Additions

OHIO

BELLE HALL COVERED BRIDGE (1887), Croton, Multiple-kingpost truss.

HARSHMAN COVERED BRIDGE (1894), Fairhaven, Preble Co. Childs truss.

CHRISTMAN COVERED BRIDGE (1895), Eaton, Preble Co. Childs truss.

LORAIN-CARNEGIE BRIDGE (1932), Cleveland. Steel, stone, and concrete double-deck truss with 13 spans totalling 3610 ft. Stone pylons at each end bear eight Art Deco figures, each holding a transportation symbol.

OTTAWA WATERWORKS BUILDING (1904), Ottawa. One-story redbrick, hip-roof building which housed Putnam Co's. first pumping station.

PENNSYLVANIA RR DEPOT & BAGGAGE ROOM (1873), Dennison. Rectangular brick depot on the Pittsburgh-Columbus line.

MARYLAND

ELLICOTTS' MILLS HISTORIC DISTRICT, Baltimore Co. Begun in the 1770s with the Ellicott bros. founding of the Patapsco Flour Mills (which helped lead to Baltimore's flour industry dominance 1805-36), the area's single industry today still is a flour mill, having been the site of an iron works, slitting mill, nail works, and textile mill as well.

PENNSYLVANIA

CALHOUN STREET BRIDGE (1885), Morrisville-Trenton. (Added also to the N.J. State Register in 1975) The 1280 ft. Delaware River bridge—still used—employs the proprietary Phoenix column in its seven 180-ft. spans.

OTHER RECOGNITION

MARCONI WIRELESS TELEGRAPH CO. FACTORY BUILDING (c1900), Roselle Park, N.J. Designated a borough bicentennial landmark in 1976, it also was the first home of the Radio Corp. of America and one of four WW-I-era wireless manufacturing plants.

THE WHY IN HISTORY

Although technology is a thoroughly rational area of human endeavor, in which most of those within and without commonly assume that decisions invariably are made on the basis of solid, practical evidence, immutable physical laws, and relentless considerations of economy, the field is littered with whim, prejudice, and other unexpected influences on design. So points out John H. White, Jr. in a thought-provoking opinion in the Sept. *Trains* (p.66). As an example of the need for historians (and we would add industrial archeologists) who are seeking the reasons for the way things were done in a given situation to be aware of this "illogicality factor," White cites the circumstances surrounding the building of the H.K. Porter Locomotive Works' last steamer in 1950. It was ordered not because a steam locomotive was the best type for the customer's service, but because the customer's plant engineer was an old timer who wanted no part of a diesel.

SIA AFFAIRS

ANNUAL CONFERENCE. We're really destroyed about the miscue on the dates, but trust that it was caught in sufficient time that no one's plans were knocked too far awry. The *real* dates, immutable:

30 March - 2 April 1978.

Begins Thursday night in Louisville, Ky.; process tours Friday; papers Saturday; that night the entire show moves to Cincinnati; tours there on Sunday. From the preliminary sound of it, this will be the conference of the age. Details out early next year.

IA Erratum. Robert W. Passfield, author of "Swing Bridges on the Rideau Canal" in *IA* Vol. 2, wishes to point out that the through-truss swing bridge at Long Island (p. 62), inadvertently identified as a Whipple truss is, in fact, a standard *Pratt* truss.

Editor's Note: Traditionally, simple trusses with tensile diagonal web members extending over two panels have been known as "Whipple-Murphy" trusses. Recent research has determined this to be an inappropriate designation, the form being, quite simply, a "double-intersection Pratt" truss. Henceforth let it be so known.

CONSULTANTS DIRECTORY. The SIA proposes compilation of a directory of individuals and firms having expertise in any and all areas that can be construed as, or impinging on IA. The need for such has been long felt, we gather, in view of the number of inquiries on talent received. Included would be millwrights; restoration architects and contractors; suppliers and restorers of period machinery and equipment; civil engineers, architects, and attorneys able and willing to offer expert advice and even testimony on preservation, restoration, renovation, and adaptive use of obsolescent structures; archeologists familiar with industrial sites and structures; preservation consultants; appraisers; and the like. Would those offering appropriate services or knowing of others who do kindly advise Prof. C. T. G. Looney, SIAN editorial address.

NEW ABBREVIATIONS & DESIGNATIONS. At the suggestion of several readers, we propose to adopt the following system: Any U.S. property mentioned that is in the National Register of Historic Places will be followed by [NR]; those that are National Historic Landmarks by [NHL]. (All NHLs automatically are in the NR.) All structures that have been recorded by the Historic American Engineering Record or Historic American Buildings Survey will be designated [HAER] or [HABS]. It would be helpful if those writing or sending in material, who know that the structure/site mentioned falls into any of these categories, would so note.

COUNSEL. The Board of Directors is pleased to announce that Brenda Barrett, an attorney with the Natl. Register, Washington, has accepted the post of Hon. Counsel for the Society, filling a long-felt need and assuring that henceforth we will be able to operate on a sound legal footing.

CHAPTER NEWS

MONTGOMERY C. MEIGS ORIGINAL

THE EAST BROAD TOP RR EXCURSION, 20 August. Upon arrival at Rock Hill Furnace, near Orbisonia, Penna., The MCMOCs were briefed on the EBT's history by tourleader G. Wayne Laepple [SIA], and following a ride up the five-mile operating length of the line were conducted through the railroad's most important feature: its repair shop complex. Built in 1882 and essentially unaltered, the shops are a dark forest of period shafting, belting, and machine tools. The original steam engine remains in



East Broad Top RR shops at Rockhill Furnace.

place, although electric group drives were introduced some years ago. The equipment typifies absolutely a railroad shop of the era.

As the last narrow-gauge common carrier operating in the East, and not having been picked over by scrappers and later "restored", the EBT is of great IA interest. The relationship of its parts can be studied with all elements in their original locations, rather than in isolated collections. All of the RR's rolling stock, as well as its infrastructure, is oriented to coal haulage. Four surviving steam locomotives and a rail car were available for revenue service, the latter used for periods of low demand. Hidden in the shop was a maintenance-of-way rail car converted from an automobile.

Following the shop visit, the group travelled the Shade Gap Electric Ry., an associated tourist trolley operation recently established by an enthusiast's club, and then by car followed the EBT line north to its onetime point of interchange (with the Penna. RR) at Mt. Union. There, nearly equalling the shops in interest, was seen an abandoned but nearly intact EBT coal breaker of c1920, based on the Chance sand-floatation process, in which the coal and its free impurities were separated by being passed through a sand-water slurry having a density somewhere between the two. The coal rose; the impurities sank; and each went its proper way. C.R.

NB: See SIAN July 1977 p. 8 for a note on means whereby other groups can take this trip.

SOUTHERN NEW ENGLAND

WALTHAM TOUR. The MIT New England Mill Studies Project and the SNEC co-sponsored a 6 Nov. tour of the original Boston Assoc. cotton mill complex, 144 Moody St., Waltham, Mass. This structure incorporates the 1814 mill in which Francis Cabot Lowell and Paul Moody first devised integrated cotton textile production — as well as accretions of 1816, 1843, 1873, and later, which add up to a short course in 19thC mill architecture in one building. The intention of the tour was to both acquaint SIA members with the structure before it is redeveloped into "elderly" housing, and to give the developer and architect the benefit of the wisdom of IA in tailoring their final plans to preserve and enhance as far as possible the historic character of the complex. About 30 came out to: clamber through vacant structures; observe the shift to slow-burning mill construction; yearn to dig the wheel pit of the world's first integrated factory before it becomes an apartment; wonder if a HAER survey were feasible; and go home happy. Another tour might be arranged if anyone is interested. Contact Mike Folsom, NEMSP, 20B-232 MIT, Cambridge MA 02139. (617) 253-4057.

ROEBLING

TOUR: N.Y. HARBOR ON THE N.J. SIDE. Sat. 28 January, starting 9:00 @ Hoboken RR Terminal. To visit: Lackawanna Rail-Ferry Terminal; K&E Bldg. (reinf. conc., 1905); CRR of NJRR Terminal (1899/1914); DL&W ferry *Binghamton* (c1905) — now a restaurant; ALCOA Edgewater Works (1916-24/1938-40); Hackensack Water Co. water tower, Weehawken (1883). \$2. Call Terry Karschner for flyer; car-pool information: N.J. Office of Hist. Pres., Trenton 08618. (609) 292-2028.

NOTICE

AUTHOR/PROJECT COORDINATOR SOUGHT for development and preparation of a much-needed book on the **continuing use of industrial places**, a companion volume to *Working Places*. The proposed work is intended to document endangered traditional industries, processes, and plants that have managed to remain alive and economically healthy and to consider the reasons for their success, providing support and guidance for others. The author will work with the SIA Board to develop a grant proposal and then implement the project, being responsible for case study research and interviews along with descriptions and histories of the processes and products involved. Estimated project time after receipt of the grant: one year. Candidates are urged to contact Dianne Newell, Pres., SIA, 97 Euclid Ave., London, Ontario N6C 1C3, Canada.

MISC. NOTES

THEODORE CONRAD, well-known builder of architectural models for a half century, has retired to assume the post of Historical Commissioner of Jersey City, N.J.

JOHN W. McGRAIN, distinguished molinologist and historian of Maryland industry, has been appointed Executive Secy. of the Baltimore County Landmarks Preservation Commission.

DAVID G. ORR, formerly in the Dept. of American Civilization, Univ. of Penna., has been appointed Regional Archeologist for the Natl. Park Service's Mid-Atlantic Region, HQ in Philadelphia. Orr will continue to teach an IA course at Penn.

EXHIBITION: "The Enterprising 19th Century." Maryland Hist. Soc., 201 W. Monument St., Baltimore. Nice group of artifacts and documents on the city's commerce & industry. To end of January. Tues.-Sat. 11:00-4:30; Sun. 1:00-5:00.

C & O CANAL MEDAL. A commemorative medal to the Chesapeake & Ohio Canal (1828-1924) has been prepared by the American Canal & Transportation Center (Box 310, Shepherdstown, WV 25443). It is an attractive bronze creation with a C&O coal boat leaving a lock on the obverse and the canal's official seal on the reverse. Descriptive flyer available.

POSITION AVAILABLE: Survey Analyst, to conduct surveys of sites having historical, architectural, archeological, or cultural significance. Involving research, photography, field work. Min. salary: \$13,600. Information: Chas. Skrief, State Historic Preservation Office, Minn. Hist. Soc., Ft. Snelling Branch, St. Paul, Minn. 55111.

SMITHSONIAN FELLOWSHIPS—History of Science & Technology, in support of independent research in residence, in assoc. with staff & collections. Post & predoctoral: \$12/7,500 annual stipend + research allowance—applications due 15 Jan. Graduate projects: 2 to 3-month directed research projects @ \$100 per week—applications by 1 March. Information: Office of Academic Studies, Smithsonian Institution, Wash., DC 20560.

HAGLEY PROGRAM of Graduate Study, leading to MA/PhD in Bus., Econ., or Tech. History, or professional work in museums, hist. agencies, restorations, &c. Strong IA emphasis, employing facilities of the Hagley Museum and Eleutherian Mills Historical Library. Six full fellowships offered. Applications in by 7 Feb. Bulletin: Hagley Program, Eleutherian Mills-Hagley Foundation, Greenville, DE 19807.

IA TOURS. Again Swan Tours are running excursions to important IA sites in England and N. Wales: 18 July—1 Aug. and 29 Aug.—12 Sept., 1978; \$802 (not incl. air fare over). The list of sites is impressive, including canal, railway, quarry, textile mfg. and other enticing structures, the well and the lesser known. Information: W.F. & R.F. Swan (Hellenic) Ltd., 237 Tottenham Ct. Rd., London W1P 0AL. (01-636-8070).

ROPE MACHINERY AVAILABLE: St. Louis (Mo.) Cordage Mills has ceased operations leaving available to any responsible museum or other group a number of rope-making machines, some of them perhaps as early as mid-19thC. Contact: Dr. John Roberts, Secy., Natl. Museum of Transport, 3015 Barrett Station Rd., St. Louis, MO 63122. (314) 965-6885.

HARRIS CORLISS. One of the better-class Corliss engines was that built by Wm. Harris of Providence, in the very shadow of Corliss' own great works. An example, of 1895, is available to a responsible taker: 360 HP; 13-ft. flywheel. Contact: Luther Randall, Pres., Randall Bros., 665 Marietta NW, Atlanta, GA 30313. (404) 892-6666.

RESEARCH INQUIRY: Producer Cooperatives. Seeking any information on these, anywhere in U.S., begun 1790-1970. A P.C. is "An autonomous industrial enterprise where, because of worker ownership or equity, there is believed to be substantial provision for employee participation in decision making at all levels." Tim Schottman, N.Y. State School of Industrial & Labor Relations, Cornell Univ., Ithaca 14853.

RESEARCH INQUIRY: Woodbury Granite Co., Hardwick, Vt., in early 20thC largest producer of stone for and erector of granite

buildings: four statehouses + countless courthouses, post offices, banks, &c. For a book, seeking all information on their buildings; architects' and owners' corresp. with; photos of buildings & erection; even just names of buildings known. J. Wesley Miller, 5 Birchland Ave., Springfield, MA 01119.

MISCELLANEOUS SITES & STRUCTURES

WALKING TOUR. Last fall Boston's City Conservation League drew attention to the **Dorchester and Milton Lower Mills** neighborhood with a "Discovery Walk" in which about 50 persons, many of them local residents, took part. The area is rich in 19thC industrial structures, including those of the **Walter Baker Chocolate Co.** which moved away in the 1960s. These buildings, dating from the 1870s, now house over a dozen small businesses. There also are warehouses, a turn-of-the-century woolen mill, Richmond Hall (1813, where Lincoln once spoke), and what evidently were mill-workers' tenements. One of the principal reasons for choosing that area for the walking tour was that it has been relatively undisturbed thus far, so that this industrial community along the Neponset River has the promise of remaining intact and being preserved if the citizens just recognize its architectural and historical importance and nurture what they have.

THE "OLD SHOE TOWN" portion of Haverhill, Mass. is being seriously considered for nomination as a Natl. Register Historic District. Particularly encouraging is the enthusiasm expressed by members of the Mass. Historical Commn. who recently inspected the area and came to the conclusion that the district limits should be even larger than proposed originally.

The last of three GASHOLDER HOUSES built by the Northampton [Mass.] Gas Light Co. in the late 19thC has been approved for transfer by the City Council to Dwyer Assoc., a Boston developer who plans to adapt the building as a theater and restaurant. The 28,000 cu.ft. brick structure, donated to the City in 1973 by the Bay State Gas Co., is located in the downtown Natl. Register Historic District. (*Possibilities*, Vol. 2, Nos. 1&2, 1977).

SAUGUS. Wood shafting for the water-power drive installed at the **Saugus [Mass.] Iron Works Natl. Historic Site** in 1951 has rotted and is being replaced. Seven gigantic white-oak tree trunks have been delivered to the site, the largest 33 ft. in length and 30 in. in diameter. Robin Wade, exhibits designer of Richmond, Surrey, G.B., has been retained by the Park Service to improve the site's interpretive aspects, and those of the Hopewell Furnace site in Penna.

PACKING-CASE IA. The 12 x 26-ft. wood crate in which Lindbergh's *Spirit of St. Louis* was returned to the U.S. in 1927 aboard the cruiser *Memphis* was to be sold by telephone auction May 20-21. Since coming back it has served as a rustic forest cabin near Contoocook, N.H. Anyone know the results of the auction?

GAS LIGHT. A year-long effort to save two Fredonia, N.Y. masonry buildings, the stone Lester-McCleur Home and a brick structure next to it, was lost in February when they were demolished on orders from Village officials to make way for a new fire hall. The buildings stood directly across the street from the site of the first natural gas well in the U.S. (1821). Both structures seem to have been built in the 1820s and were the last extant buildings in the village that were lighted by gas from the well.

THE LANE MFG. CO. buildings, Montpelier, Vt., dating from 1863 (sawmills, granite and woodworking equipment, water turbines) face an uncertain future. The firm's heyday was in the 1890-1945 period. Business dropped off after WW-II, resulting in the division and sale of the property in 1960. Lane continued to manufacture replacement parts until a fire last January destroyed one of the buildings. Attempts at using the structures for local industries have failed and the city has zoned the area residential. A local group, the Lane Shops Committee, was formed to coordinate city, regional planning commn., and Montpelier Heritage Group efforts toward finding a solution. The Montpelier Housing Auth. was thinking of replacing the other industrial buildings with 25 units of housing for the elderly, but it now appears that a private developer may convert the shops to housing. (*Possibilities*, Vol. 2, Nos. 1&2.)

NOTE: Please advise us of address changes. With 3rd-class mailing (U.S. only), mis-mailed material is far less likely to be returned by the P.O. Do your part.

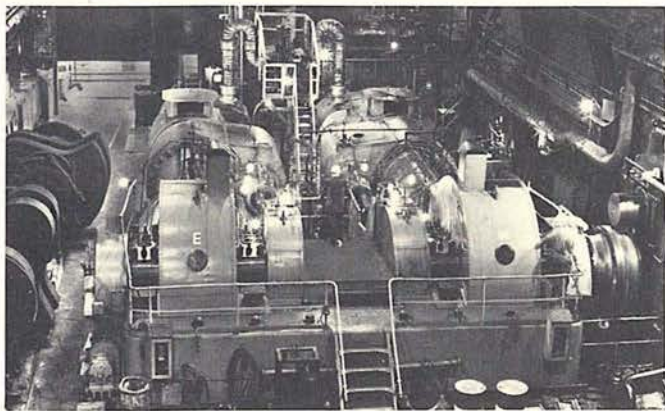
NOW COMPLETE is the post-type flour mill built by millwright Derek Ogden [SIA] to a c1750 design, at Flowerdew Hundred Farm near Hopewell, Va. [SIAN Mar 76:4]. Dept. of Anthropology, College of William & Mary photograph by Jim Williams.



VERY MISC.

RECORDING NEEDED. Three very large lime kilns, pre-1900, Eagle Rock, Botetourt Co., Va. In good condition; oral history possibilities. An important but neglected industry. Information: T. G. Hobbs, Jr. [SIA], V.P. Mfg., C. B. Fleet Co., Inc., Box 1100, Lynchburg, VA 24505. (804) 845-2375.

SUPERLATIVES. Normally we'd leave this sort of thing to the Ripleys and Guinesses, but we ask forgiveness for once in a while indulging in an exercise that's not without some interest. Thus . . . The Earliest Extant Railway Bridge without much doubt is the Causey Arch near Stanley, Co. Durham, England, built in 1727 to carry the Tanfield colliery tramway across a steep-sided valley on a single stone arch of 90-ft. span. It currently is undergoing restoration (the first American RR bridge is the Baltimore & Ohio's Carrollton Viaduct of 1829 crossing Gwynns Falls in SW Baltimore, still in service.) . . . while The Most Powerful Stationary Steam Engine Built in the US (possibly the world) still serves Republic Steel Corp. in Cleveland: a Mesta twin-tandem compound reversing rolling mill engine of 1916 with 46 & 76-inch x 60-inch cylinders, direct-connected to a slabbing mill. With 200-psi steam (condensing) and turning at 200 rpm it develops 35,000 hp. (Reported by Harry E. Young II [SIA]) . . . and finally, the First Lighthouse in the World to be fuelled by natural gas stands at Barcelona, N.Y. on Lake Erie. It was in service 1829-59.



A giant among engines. Republic Steel's Mesta engine, direct-connected to a 44-inch rolling mill (at right). At left is a spare crankshaft. Republic Steel Corp. photograph.

PUBLICATIONS OF INTEREST

Graham Adams. **Age of Industrial Violence, 1910-15: the Activities & Findings of the U.S. Commn. on Industrial Relations.** N.Y.: Columbia Univ. Press, nd. \$13.50, currently on sale @ \$4.00.

R.H. Bird. **Yesterday's Golcondas: Notable British Metal Mines.** Moorland Publ. Co. (The Market Place, Buxton, Derbyshire SK17 0AL England.) \$7.00.

R. Burt. **John Taylor: Mining Entrepreneur and Engineer, 1779-1863.** Mooreland Publ. Co., as above. \$4.50

Elizabeth G. C. Menzies. **Passage Between Rivers.** New Brunswick, N.J.: Rutgers Univ. Press, 1976. 132 pp. \$4.95. Delaware & Raritan Canal: history & archeology.

Susan E. Messham. **Gas—An Energy Industry.** London: The Science Museum. 1976. 46 pp. \$2.50. Good historical account of the coal gas industry. (U.S.: Pendragon House, 220 University Ave., Palo Alto, CA 94301.)

Harold Nockolds. **Lucas: the First 100 Years. Vol. 1: The King of the Road.** North Pomfret, VT: David & Charles. 349 pp. \$19.95. An industrial biography of the Lucas company, producers of auto and cycle equipment. Vol. 1 ends 1939.

Barbara R. Robertson. **Tide Mills: a Past for the Present.** In *The Occasional: An Occasional Journal for Nova Scotian Museums* (Spring 1976/77). pp. 24-33. Bay of Fundy tide mills.

Albert C. Rose. **Historic American Roads.** N.Y.: Crown, 1976. Reprint of 1953 ed. N.P.

Sanford Rose. **The Sponge Iron in Steel's Future,** in *Fortune*, Jan., pp. 106-110, 112-113. The revolutionary impact of an ancient Hittite (a people, not a type of ore) process.

Nathan Rosenberg. **Perspectives in Technology.** N.Y.: Cambridge Univ. Press, 1976. 368 pp. \$25./7. Some Origins of American Technology (change in the machine tool industry, 1840-1910): America's Rise to Woodworking Leadership; The Generation of New Technologies; Diffusion & Adaptation of Technology; Natural Resources, Environment, & the Growth of Knowledge. Technology essentially from the economic standpoint.

Clyde Sanders & Dudley C. Gould. **History Cast in Metal; the Founders of North America. Vol. 1 (1619-1890).** n.p.: Cast Metals Institute & American Foundrymen's Society, 1976. 562 pp. Heavily illus., traces the metal casting industry through to the birth of the Foundrymen's Society.

RAILROADS

(* = available from the Electric Railroaders' Assn., Box 80, Church St. Stn., NYC 10008.)

Stan Fischler. **Uptown-Downtown: A Trip Through Time on N.Y.'s Subways.** N.Y.: Electric Railroaders' Assn. 270 pp. \$13.*

General Electric Co. (technical bulletin series). **Bulletin 115, Electrification by GE.** Reprint of 1920s edn. 256 pp., 236 photos, with diagrams, schematics, statistics. \$18. Avail.: Central Electric Railfans' Assn., Box 503, Chicago, IL 60690.)

Donovan L. Hofsommer. **Katy Northwest: the Story of a Branch Line RR.** Boulder, CO: Pruett Publ. Co., 1976. 305 pp. \$27.95.

William Kaye Lamb. **History of the Canadian Pacific Ry.** NY: McMillan. 491 pp. \$17.95. The whole story from the origin to the later diversification into ocean and air traffic.

Albro Martin. **Enterprise Denied: Origins of the Decline of American Railroads, 1897-1917.** N.Y.: Columbia Univ. Press, nd. \$15.00, currently on sale for \$4.50.

Russell L. Olson. **Electric Railways of Minnesota.** N.Y.: Electric Railroaders' Assn. 560 pp. \$30.*

Kenneth Springirth. **North American Trolleys.** N.Y.: Electric Railroaders' Assn. 144 pp. \$9.* All operations today in U.S., Canada, Mexico.

Edward B. Watson. **New York Then & Now.** N.Y.: Electric Railroaders' Assn. 172 pp. \$5* 166 photos of 83 Manhattan sites.

John H. White, Jr. **Grice & Long: Steam-Car Builders.** In *Prospects: An Annual of American Cultural Studies*, 1976, pp. 25-39.

Earl P. Williams Jr. **The Architecture and Engineering of Amtrak's Washington-New York Corridor: a Pictorial History.** Maryland Historical Press, 9205 Tuckerman St., Lanham, MD 20801. \$5.50.

INDUSTRIAL ARCHAEOLOGY, The Journal of the History of Industry & Technology. We have purchased the remaining volumes of Vol. 7 (1970), four Nos. Over 25 major articles + Book Reviews, Notes & News, Film Lists, &c. Bound in one, hard covers, indexed, 480 pp. \$6 postpaid. American Canal & Transp. Center, Box 310, Shepherdstown, WV 25443. Ed's note: this publication, defunct since Aug. 1974, has been revived. Details next issue.