

# SOCIETY FOR INDUSTRIAL ARCHEOLOGY

## NEWSLETTER

Volume Seven Number 5

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### ALASKAN IA — II



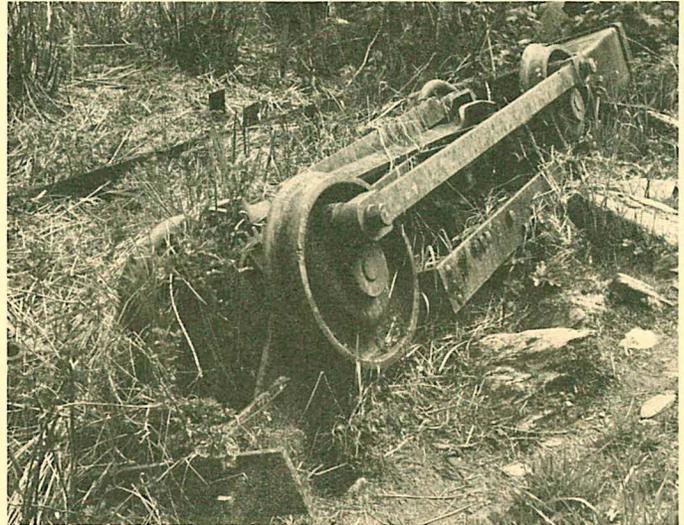
Beach Puzzle Picture. How many machine elements can you find ending their days on the beach near Juneau? Can you spot the lathe bed, the Pelton-wheel casing, the mine-car pedestal plate...? While on the right, scattered down a hillside below the Silver Queen Mine SE of Juneau is one truck of a Risdon Iron Works geared mine locomotive.

*This second and concluding segment of Robert L. Johnson's account of his trip to Alaska in the summer of 1977 continues to describe the IA in the vicinity of Juneau, astonishing for both its abundance and rarity. All photos by author.*

If not surfeited after visiting 5 beautifully-maintained, intact early-20thC impulse-wheel-driven power plants [see previous installment], one has only to poke around a bit in the countryside surrounding Juneau. Miles of hiking trails are available, from the "easy-stroll" to the rugged-overnight-hike variety, and Juneau's stores supply USGS and tourist maps to the gold mines and mills that abound in the area. I devoted several days to visiting such sites and can suggest that a study of impulse wheels (Pelton-type hydraulic turbines) can be done in the Juneau area alone. Behind Bullion Creek power plant on Douglas Island can be seen a delightful 8-ft. pair of early rectangular-bucket Pelton wheels from the island's original 1880 development.

At the Wagner mine site at Salmon Creek falls (behind Lower Salmon Creek powerhouse) stands a pair of air compressors direct-connected to two impulse wheels: one an Oakland Iron Works Pelton-Doble type; the other the earlier and quite rare staggered-bucket wheel built by Tutthill in Oakland, Calif. Both are 9 ft. in diameter. The remains of an early 5-ft. Pelton can be seen in the debris of the collapsed mine adit, and as I walked away I literally tripped over a small 5-nozzle impulse wheel of unknown make buried in the underbrush covering the shaft of another prospect.

Out Glacier Highway at Yankee Cove are the remains of a small prospect mill with parts of stamps and the inevitable impulse wheel lying on the beach. On Douglas Island, a long hike to Nevada Creek will reveal a small stamp mill *in situ*; for the less ambitious a day spent among the acres of ruins of the Treadwell mines reveals such wonders as the foundry — burned but with most machinery, patterns, castings, &c still in place; the remains of a huge Allis-Chalmers 1st-motion hoisting engine (drum directly on crankshaft); a small Mexican-type cyaniding plant with ball mill and two pachuka tanks; and mile after mile of industrial railway.

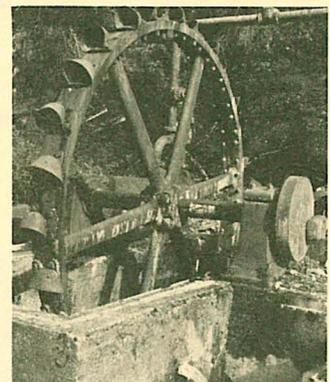


Behind Juneau, in the Silver Bow Basin, a strenuous hike across Gold Creek will bring one to a line of prospect mills with stamps and small impulse wheels. The best of these are at the Ebner mine adit across Ebner Falls. Up the Sheep Creek trail are the remains of the Silver Queen and Glacier mines. Ore cars are scattered down the hillside and one of that rare breed, the geared steam mine locomotive by Risdon Iron & Locomotive Works, San Francisco, lies bottom up beside the trail, boiler missing but frame and drive intact. Peterson Lake trail, 26 miles N. of Juneau, follows the route of a tramroad past remains of mining machinery, as does the old pole (corduroy) road up Yankee Cove to the Aurora Borealis mine.

SE Alaska abounds in abandoned machinery and, fortunately, the distance to Seattle's scrapyards and the high cost of transport plus the rugged terrain around Juneau may continue to keep the IA intact for some time yet.



The partially dismantled remains of an Allis-Chalmers steam mine hoist from the Treadwell group of mines, Douglas Island.

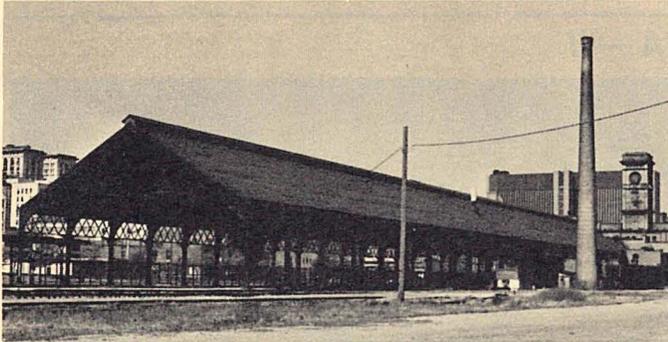


Rare alternating-bucket impulse turbine direct-connected to a cross-compound air compressor, c1890. Salmon Creek Falls.

## MINNEAPOLIS IA: ANOTHER TRAIN SHED MAKES AN EVEN DOZEN...

And Other IA gains and losses in the Twin Cities

Minneapolis has added another long-span truss-roof train shed to the eleven located by Eric DeLony for HAER [SIAN Sept./Nov. 76]. Recently entered in the Natl. Register, this Chicago, Milwaukee, St. Paul & Pacific (Milwaukee Road) shed makes an even dozen surviving in the U.S. Built with its adjacent head house in 1897-99, the shed is approximately 600 x 92 ft., spanning five tracks by steel Fink-type trusses. Significantly, the shed is located immediately alongside a major downtown avenue making it directly accessible to the public and not hidden away in the yards.



The Dozenth. Milwaukee Road shed, Minneapolis. All photographs for Minnesota Historical Society, by Robert M. Frame III.

The head house is Renaissance Revival style in pink granite and yellow brick. The clock-tower spire was lost in a 1941 storm. When passenger service was discontinued in 1971 the head house was converted to offices using temporary partitions. The shed continues to be used for freight switching. An 1879 freight house alongside the station also was placed in the NR. The complex is contiguous with the historic flour milling district at St. Anthony Falls.

The railroad protested the nomination to the NR although their argument (bankruptcy and an inability to finance repairs) was weak in the face of the ongoing demolition of Minneapolis' monumental **Beaux Arts Burlington Northern (formerly Great Northern) Station**. The Milwaukee Road complex now is the only remaining station in the city. The demise of the 1912-14 BN/GN station [through station with lower-level tracks, described in John A. Droege's *Passenger Terminals and Trains*, 1961], while a great loss, undoubtedly has aided the survival prospects of the Milwaukee Road Station, as has the news about the extreme national significance of the train shed, based on DeLony's work. Previously, the Minneapolis Heritage Preservation Comm., in a



Burlington Northern (ex-Great Northern) Station, Minneapolis, 1912-14. The indistinguishable signage aside, all seems in order up front. Out back it's a different world. While the building contents were being sold, the platform canopies were under demolition. May 1978.



staff report, had regarded the station architecturally insignificant and not even mentioned the shed. Both the Milwaukee Road and BN stations were designed by Charles Frost of Chicago.

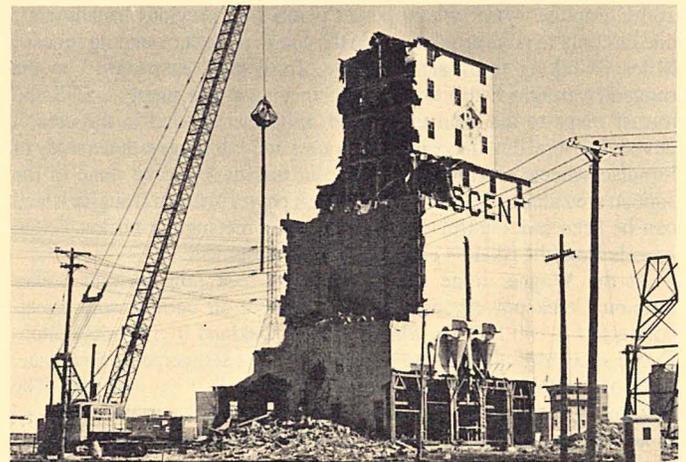
**Grain elevators** constitute another good news/bad news story for the Twin Cities. Also placed in the NR was the **Peavey-Haglin Experimental Concrete Grain Elevator** in suburban St. Louis Park. Built 1899-1900 by grain company owner Frank F. Haglin, the single 125-ft. tube is considered the first circular concrete elevator in North America. In 1900 Haglin toured Europe searching for rumored concrete elevators and reported finding assorted square and hexagonal concrete bins but nothing circular.

While serving as the prototype for the now ubiquitous concrete elevator, the Peavey-Haglin structure successfully held grain (cap. 30,000 bushels) during its first season, apparently proving the design and material adequate in the search for a fireproof elevator. It never was used for commercial grain storage. Ironically, a cluster of elevators built by Peavey the following year at Duluth and based on the original Minneapolis design buckled and broke open when loaded. The first elevator has been preserved by Northland Aluminum Products, Inc. which has replaced the original cedar pilings in the foundation with reinforced concrete to prevent a leaning-tower-of-Minneapolis disaster.

In 1899, while Peavey and Haglin were experimenting with concrete, the Van Dusen Harrington Co., also in Minneapolis, was constructing its 1,500,000-bushel **Crescent "H" elevator**. Unlike Peavey's, the



Peavey-Haglin experimental Concrete Grain Elevator, 1899-1900. Ht.: 125 ft. Interior diam.: 20 ft. Walls: 12 ins. at base, tapering to 8 in. at top.

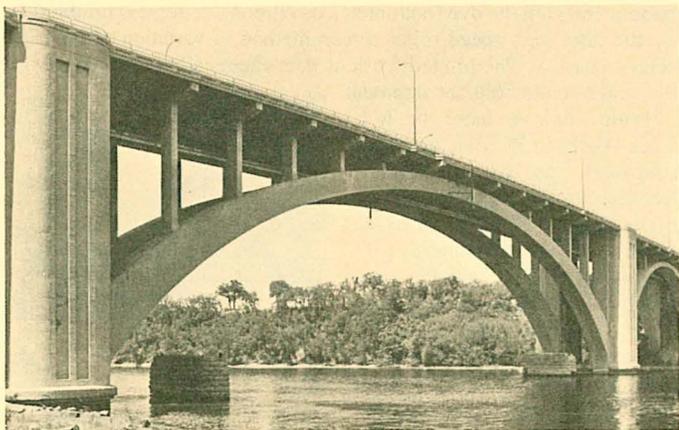


Crescent "H" Elevator, 1899, in the traditional heavy-timber-frame-and-corrugated-sheathing mode.

Crescent was built after the traditional wood-cribbed design, sheathed with corrugated metal. Years later, Peavey Co. merged with Van Dusen and thus acquired the Crescent. Early this year, as the NR nomination was being prepared for Peavey's pioneering concrete structure, his other legacy — the Peavey Co. — was busy demolishing the old Crescent. Minneapolis is slowly losing its large wooden terminal elevators.

Accompanying the RR and elevator NR entries are **two bridges and a lime kiln**. The bridges are among a series of reinforced-concrete

highway spans of the 1920s across the Mississippi and Minnesota rivers at the Twin Cities. The 1054-ft. **Cappelen Memorial (Franklin Ave.) Bridge** was built 1919-23 and dedicated to Minneapolis engineer Frederick W. Cappelen (1857-1921) who designed it and died during construction. At completion, the 435-ft. main span across the Mississippi was the longest concrete arch in the world. Fortunately when the bridge came up for replacement consideration in 1970 the river piers and arches were preserved even though the deck and spandrels were removed and replaced. Unfortunately only every other spandrel was rebuilt.

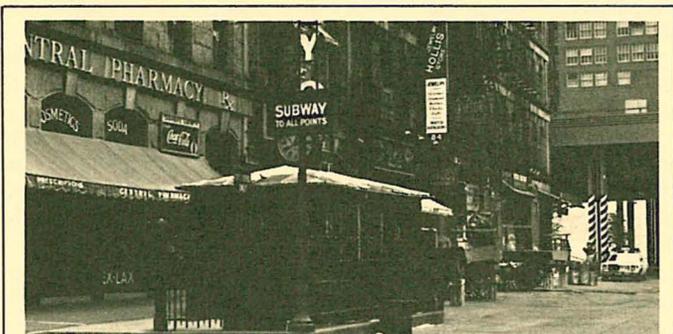


Cappelen Memorial Bridge, Minneapolis. Built 1919-23; remodeled 1971.

In 1925-26 another Minneapolis engineer, Walter H. Wheeler (1883-1974), collaborated with his sometime concrete design rival, C.A.P. Turner, on the plans for the 13-span **Ft. Snelling-Mendota Bridge** over the Minnesota River gorge at St. Paul. With a total length of 4119 ft (304-ft. spans, vertical clearance 220 ft.) the Mendota bridge was the longest continuous concrete arch bridge in the world when built. It remains unaltered although state engineers threaten changes in the future.

**The Grey Cloud Lime Kiln**, located along a Mississippi River side channel south of St. Paul, is of obscure origin though a mid-19thC construction date is estimated. It is about 35 ft. high and 20 ft. square at the base, tapering somewhat toward the top, with slightly concave sides. There are three keystone arch openings and it is believed to have been loaded via a wood ramp at the rear.

While the Minn. State Review Board was enjoying — and passing — these IA nominations (“It’s nice to see some engineering nominations for a change,” one member declared), George Rollie Adams [SIA] of the Historic Landmarks Project was in town to survey the Washington “A” Mill (built 1880, later owned by General Mills and now scheduled for adaptive use; see SIAN July 77) for National Landmark designation. *R.M.F.*



**Letter from Boston—HOLLYWOOD GOES IA.** Imagine my disbelief when I serendipitously wandered onto the vacant “Brink’s Job” movie set downtown to find that not only had a chunk of the Custom House been bedecked with period advertisements and merchants’ signs from the 30s, but two copper-sheathed subway entrances of the first water also were in plain view. They were, of course, masterful fakes. Everything had been whipped up from scratch, including the Rialto marquee (Victor Mature headlining) affixed to the Grain & Flour Exchange Building (Shepley, Rutan & Coolidge, 1890-92). Producer Dino Laurentis had brought back Scollay Square and had me going for it, right down to the Ex-Lax signs in the non-existent pharmacy’s window. *S. Marshall Brooks, Waban, Mass.*

## IA SURVIVALS—BACK BY POPULAR DEMAND

*Throughout the country, but mainly in New England, the mills, kilns, workshops, and furnaces of yore continue to reappear, with a zest for life that would astonish their original founders.*

**CHARCOAL.** A pair of 40-ft.-high beehive kilns dating from 1880 are belching smoke and sparks into the sky over Leverett, Mass. today as owner Mannie Witt reaps a tidy profit making and marketing charcoal. The demand is back for *real* carbonized wood—not the synthetic briquets of habachi and rotisserie fame. For the blacksmith and steak markets, Witt purchased and fired two 19thC kilns in 1971 (several remain standing), thus relighting in New England the art of charcoal burning. Each kiln is stoked with several dozen cords of green oak, maple, birch, and hickory. Room is left in the center for a few cords of dry wood that act as starting fuel. Once the fires are lit, gases and water vapor within the green wood are driven off and consumed in a slow burn, reducing the volume of wood by a third. When the smoke turns from white to blue, the wood itself has ignited and vents in the kilns are shut off to suffocate the blaze. After cooling, some 30,000 pounds of charcoal in each kiln are raked out, to be sold at about \$1.60 for a 10lb. bag. [For charcoalery in the South see SIAN Jan 75:5.]

**WHIPS.** Whip cores and riding crops, common a century ago, no longer issue from the Turner & Cook factory of Southfield, Mass. Rawhide mallets, though, continue to be produced at this 186-year old concern, now under the ownership of two enterprising brothers, Paul and Peter Strattnner. Along with the mallets, a variety of “traditionally inspired” hardwood products are produced, helping to keep alive an establishment that has kept Southfield alive since 1792. The new owners are intrigued by the deep roots of the firm and intend to turn part of the factory into a company museum. Exterior renovation and period finishing of certain rooms are also planned.

**WOODMONGERY.** Let’s hear it for the E.B. Frye Mill of Wilton N.H. Since 1858, this water-powered woodworking mill has been turning out an array of specialized products using mid-19thC machinery. In the early years, self-sufficiency was an important concern of the Fries, as often was the case with industries until commercial raw materials became widely available. An on-site printing shop produces labels and advertising; the Frye sawmill processes raw timber for use in the woodshop. An 1871 steam engine built in Cambridgeport, Mass. supplemented the water. It has been retired but remains on the premises. Today, operator Harland Savage continues to produce many of the mill’s original products — wool (hand) cards, Shaker pantry boxes, wooden kitchenware.

**LUMBER.** Accolades also are in order for the 148-year old Damon Sawmill of Fitzwilliam, N.H. As with Fries, this family-run outfit has depended upon water power to turn its circular saws, used today to cut special widths of lumber not available elsewhere. Owner-operator Clayton Damon, a fifth-generation sawyer, says there’s no need to switch power sources. The water’s handy and cheaper than electricity, resulting in lumber prices as improbably low as the mill’s utility bill.

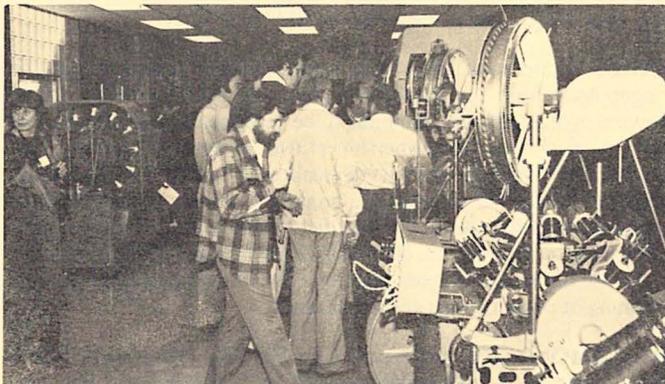
**STONECUTTING.** The ongoing construction of the great Gothic Natl. Cathedral in Washington, D.C. currently is at a standstill, but the cathedral’s newly-acquired stone-cutting shop is doing a brisk business with private contractors. Within the Phelps Stone Plant is a vast array of aged stone planers, shapers, drill presses, and saws. Until its purchase by the cathedral last year, the plant was boarded up and forgotten, a victim of structural-steel-and-concrete architecture. While the occasional cutting of stone blocks for the cathedral keeps the shop loyal to powers on high, small jobs for local contractors are helping to insure the longevity of heavyweight stone-cutting in the Nation’s Capital.

We noted earlier Ned Akerman’s scheme to build a **90-ft. coastal schooner** in Thomaston, Me., to haul lumber, stone, oyster shells, &c. in 100-ton cargoes. good sailing, skipper. But keep an eye on the horizon. A West German firm has begun marketing square-rigged transoceanic cargo ships. Sails are furled and trimmed by push button from the bridge. *D.H.S.*

The SIA Fall Tour, sponsored by the Southern New England Chapter, began with a reception at the Slater Mill in Pawtucket on Thurs. evening. Director Pat Malone conducted a tour and operated several machines in the late-19thC textile mill machine shop housed in the adjacent stone Wilkinson mill (1810). He also showed off the mill's wheel pit where a 12-ft. x 13-ft. wood-and-iron breast wheel will be reconstructed, in the original location, to once again utilize the power of the Blackstone River (see SIAN July 77:4).

On Fri. morning, with nearly 100 participants, we began the tour at the No. 2 Station of the Blackstone Valley Electric Co. (1894). Five pairs of 33-inch horizontal McCormick water turbines once furnished 1,300 hp from the 17-ft. fall of the Blackstone here. The plant was in regular use until 1970. Although electricity no longer is generated at the plant, it serves as a substation for downtown Pawtucket. The turbines, generators, and governors are intact.

A brief stop then was made at the former Valley Falls [cotton] Mill (1849-60), which currently is undergoing adaptation to housing for the elderly. Gelardin, Bruner, Cott, Inc. are architects.



Wardwell Braid, Research & Development Dept. where new applications are being R'ed & D'ed.

At the Wardwell Braiding Co., we witnessed the manufacture of high-speed braiding machines with the most up-to-date technology and computerized machinery. Since the company began operation in the early 20thC, over 60,000 of these ingenious, precision machines have been produced and are "out there" making everything from thread, shoe laces, and surgical sutures to jump ropes and coaxial cables.

Then on to Providence and the High Victorian Gothic Merchants' Cold Storage Warehouse (1893) with its Harris-Corliss steam engines and ammonia compressors, brine tanks, hydraulic elevators, and (at the moment) bumper cranberry crop.



Merchants' Cold Storage Warehouse—refrigeration condenser coils, the point at which the heat taken from the cooled substances is removed from the system.

Back aboard the buses we passed a miscellany of industrial sites, including a plant where daily, 50 tons of butter once were made. We then stopped at the unique Fox Point Hurricane Barrier, built in 1966 as a somewhat belated response to the notorious 1938 hurricane during which Providence was flooded, to keep high water in Narragansett Bay from again entering the harbor and the city. Pumps in the Barrier are capable of pumping 7000 cubic ft. of water per second out of the harbor, into the bay when the gates are closed, to remove the discharge of the Providence and Moshassuck rivers that flow into the harbor. A brief view of the immaculate (diesel) tugs of the Providence Steam Boat Co., a pass-by of the last steam-powered coal crane on the Providence

waterfront, a run through the jewelry manufacturing district, and we were off to Cranston, site of the great Cranston Print Works.

Lunch on the print works lawn and the tour continued in the works itself. "Grey goods"—plain, untreated cotton (or synthetic) fabric straight from the loom — are received in bales or large rolls. This material is bleached, washed, and finally dyed or printed. The printing is done either by the classical method with large rollers having a raised pattern carrying the dye (not unlike conventional letterpress printing) or by the later high-speed roller screen method, a variation of the silk-screen process. The printed fabric is then chemically treated to set the dye and run into bolts for shipment.

From color to lace: the R.I. Lace Works in W. Barrington, as promised, proved spectacular! The lace, in 18-ft. widths, is made on huge, early-20thC English lace looms. These machines, with over 40,000 parts, are the most complicated used in the textile industry. Each machine is tended by a single "twist hand." (The final, delicate product belies this giant machinery.) Lace designing, pattern drafting, and punching the Jacquard-type cards that control the looms are highly skilled operations, none of which has changed appreciably in over 70 years. The single major modernization in lace making is the use in the finishing process of acetone to dissolve a series of acetate threads woven longitudinally into the wide strip. These gone, the strip separates into a large number of the characteristic narrow bands, suitable for—principally—decorating lingerie.



R.I. Lace Works—chief designer attempting to make simple what may be the most arcane of all textile design processes.

After a brief tour of the Blount Ship Yard in Warren, where ferries, off-shore supply vessels, tugs, and small boats are built, we boarded the luxurious "Bay Queen" for a memorable 4½ hour dinner cruise around Narragansett Bay, which included night views of Newport and the Bay's handsome bridges.

On Saturday we reconvened, with an additional bus load, and toured over 40 sites, including mills, mill housing, small factory towns, bridges, dams, gasholder houses, and a limestone quarry, all ranged along the valleys of the Blackstone, Moshassuck, Pawtucket, and Woonasquatucket rivers. The principal feature of these valleys is, of course, the mills themselves, ranging from the venerable wood-frame Lippitt Mill of 1810, still in use (as a lace finishing works) and thus the oldest continuously-operated textile mill in the U.S., to the colossal brick complexes of the century's end. A curiosity was the stone Harris Warehouse in Woonsocket (1855), built on a curve to accommodate itself to a pre-existing RR track adjacent.

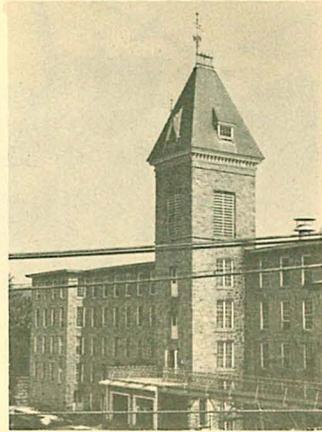
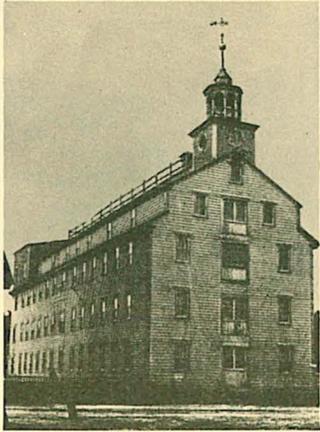
Lunch was taken on the grounds of a congenial Northern Rhode Islander who generously permitted inspection of his 19thC up-&-down swamill, wonderfully preserved and recently recorded by HAER.

While one bus load departed the tour in mid-afternoon to make early trains and planes, the diehards carried on until 7. Rhode Island may be the smallest united state but her industrial archeology is among the most dazzling in the U.S. *Betsy H. Woodman, Bradford College, Haverhill, Mass.*

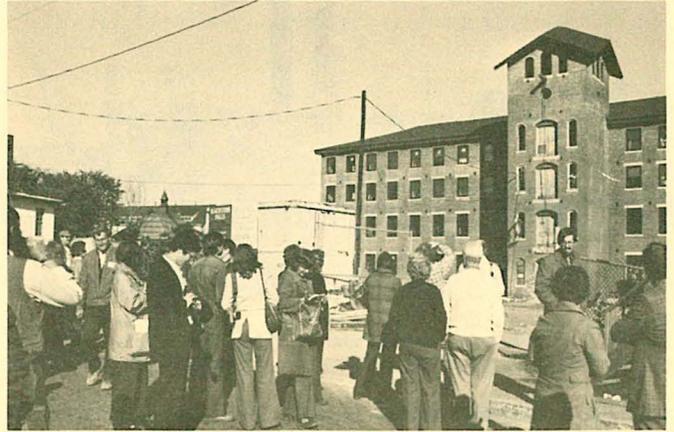
*This memorable, rich trip was the result of heroic preparation and conduction by the customary small, dedicated cadre. Those who attended must be ever grateful to Patrick M. Malone, Slater Mill Historic Site; Laurence F. Gross, Merrimack Valley Textile Museum; Gary Kulik, Slater Mill; and Betsy H. Woodman, Bradford College. Assisting them were John Johnson, Sandy Norman, Janet Harvilchuck, Marion Hyde, and Tom Leary.*

*Copies of The Tour Guide by Gary Kulik, are available from Slater Mill Historic Site, Pawtucket, RI 02865. 16 pp., illus., maps. \$1.50 PPd.*

# 28-30 SEPTEMBER 1978



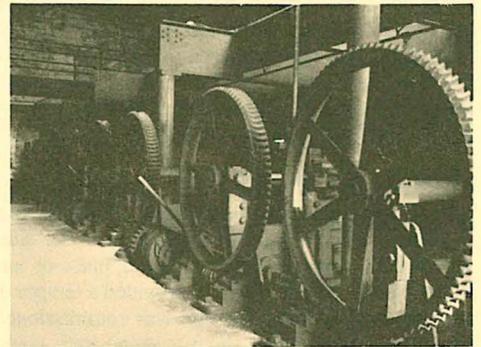
LIPPITT MILL—1810, an old view before a variety of additions, and (R) VALLEY QUEEN MILL—1889, since 1931 the ORIGINAL BRADFORD SOAP WORKS.



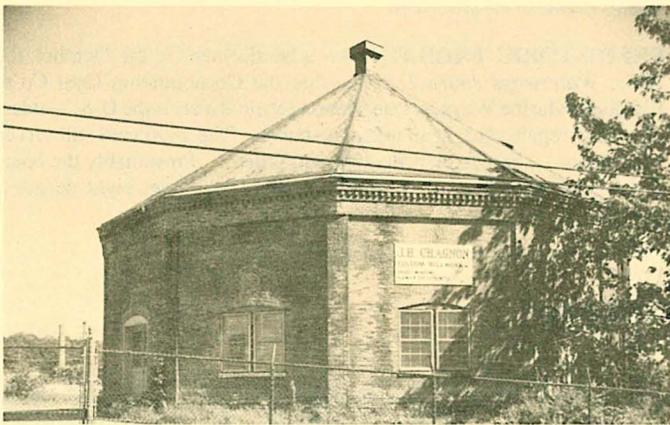
VALLEY FALLS MILLS—1849, under conversion to housing for the elderly.



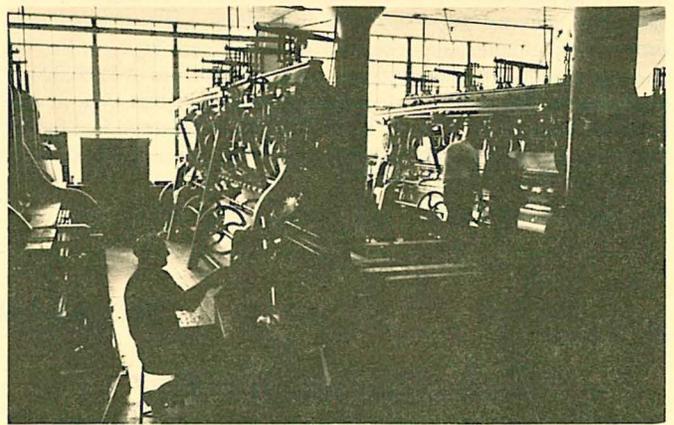
ASHTON MILL — 1867 (modified) and the ASHTON VIADUCT — 1934-45.



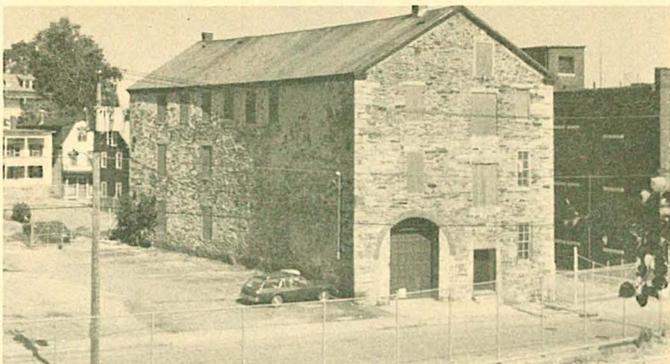
BRIDGE MILL HYDROELECTRIC STATION—1893-94. (L) Hydraulic governors, the ball heads covered by cans, (R) Gearing for raising the headgates.



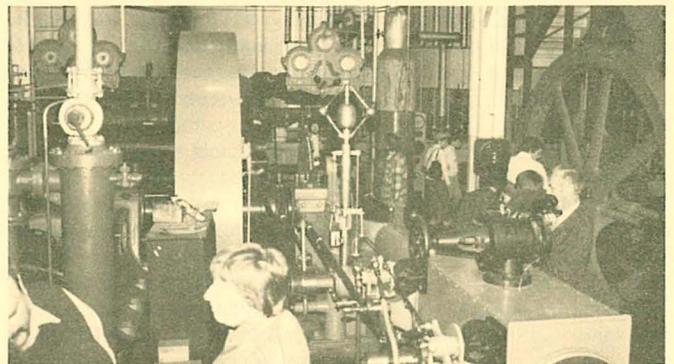
WOONSOCKET GAS CO. GASHOLDER HOUSE—ca1860.



R.I. LACE WORKS—1904, Two of the battery of mammoth English lace looms.

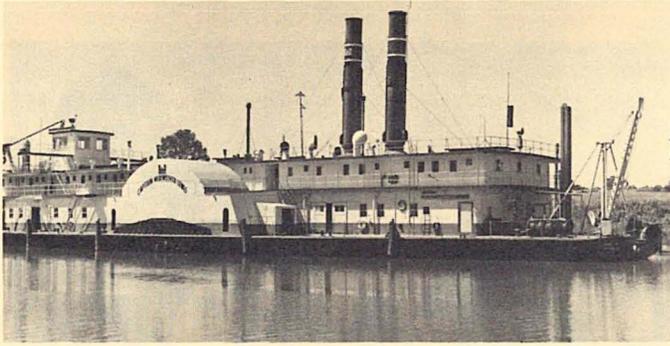


HARRIS WAREHOUSE—1855. Why is the shadow line of the eave curved?



Merchants' Cold Storage engine room—Harris Corliss steam engines on F.W. Wolf ammonia compressors, wall-to-wall.

## MARINE NEWS

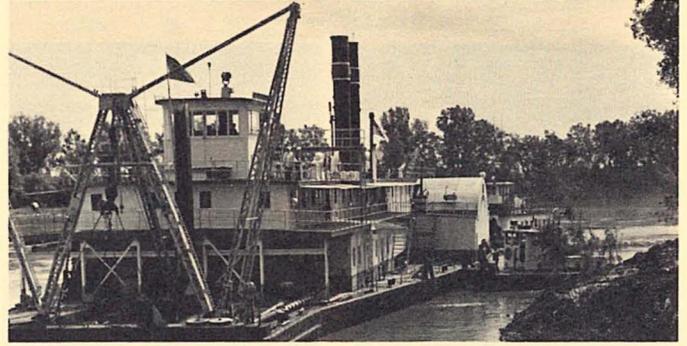


The *Captain Meriwether Lewis*, built by Marietta Mfg. Co., Point Pleasant, W. Va. 1931, first worked the Missouri River near Glasgow, Mo. 21 May 1932. Length — 269 ft.; 5 ft. width-85 ft. over paddle boxes; draft, loaded — 4½ ft. Sidewheels — 25 ft. diam. x 13½ ft.

**CAPTAIN MERIWETHER LEWIS.** The combined efforts of the Army Corps of Engineers and Nebraska historical groups have saved the *Lewis*, a handsome steam powered sidewheel dredge. Built by the Corps for service on the Mississippi and Missouri rivers, the ship has been towed to Brownsville, Nebraska, where it will be part of a local recreation area. The dredge has received a \$10,000 grant from the Natl. Trust for restoration. [See Maritime Preservation below.] Further information: *Captain Meriwether Lewis* Museum, Neb. State Historical Soc., 1500 R St., Lincoln, 68508.

**ALEXANDER HAMILTON.** Efforts to save the Hudson River steamer experienced ups and downs during the past winter. First, Fred J. Lafko, a N.Y. businessman, bought the sidewheeler and had it successfully removed from its resting place on an Atlantic Highlands, N.J. sandbar. The U.S. Navy provided a temporary berth for the Natl. Register vessel. The *Hamilton* was commissioned in 1924, is 350 ft. long with a 77-ft. beam and 8-ft. 4-in. draft, could carry 4,000 people on its runs up and down the Hudson, and is powered by a 4000-H.P. inclined steam engine. The bad news came with a November 8, 1977 storm that sank the ship at dockside in 16 ft. of water. In addition to further damaging the ship's superstructure and once lush interior, the sinking presents a further obstacle, involving expenses of \$500,000 or more, to its installation in a restaurant setting as part of a marine complex devoted to Hudson River Navigation History. For further information: the Steamer Alexander Hamilton Soc., 5 World Trade Center, 6th Floor, N.Y.C. 10048.

**PETER STUYVESANT.** Sadly, another Hudson River Day Line



wide. Engines: propelling (2) — compound, 20 in. & 40 in. x 7 ft., 800 HP; dredge pump — triple expansion, 18 in. & 29 in. & 47½ in. x 20 in., 1300 HP, 160 rpm. Last worked near Omaha, May 1969. *Nebraska State Historical Society photographs.*

boat whose use by Anthony's Pier Four Restaurant in Boston had inspired friends of the *Alexander Hamilton*, sank in the Great Blizzard in February, 1978 and its future remains uncertain.

**KESTREL.** Another N.Y. boat, the steam yacht *Kestrel* of 1892 was placed in the Natl. Register in 1977. The *Kestrel* is famous for having carried the SIA's Roebling Chapter on a tour of N.Y. Harbor [SIAN, Sept./Nov. 76:13].



*Kestrel.* Conrad Milster photograph.

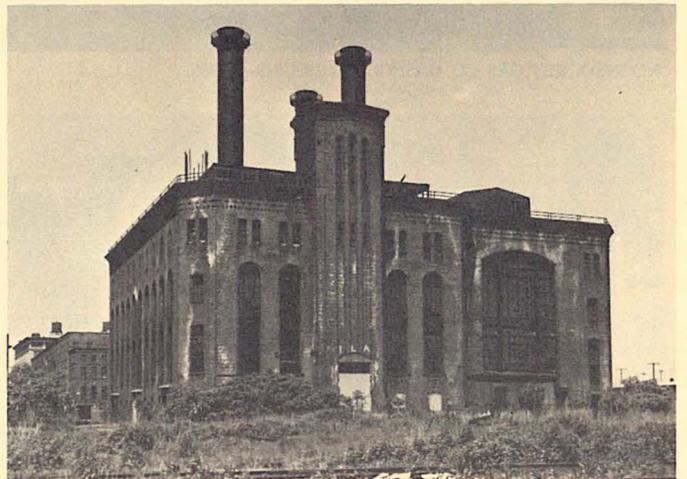
**PREHISTORIC FACILITY.** An advertisement in the October 15, 1977, *Waterways Journal* claims that the Consolidation Coal Co.'s. Elizabeth Marine Ways, on the Monongahela River, is the U.S.'s oldest operating repair yard on an inland waterway. The 1896 yard still serves "towboats..., barges, and floating equipment." Presumably the boats and barges also float, or it wouldn't have lasted over eight decades. *L.F.G.*

## RECORDING NEEDED?

### N.Y.C.'s Transportation Power Plants

Gerald Weinstein writes: I wonder whether the building illustrated is on anybody's register of IA structures? It is (I believe) the old Hudson & Manhattan "tubes" [now PATH] power house in Jersey City, N.J. Though gutted of machinery and somewhat vandalized, its beautiful brickwork survives unscathed. The boiler house on the left is a jumble of torn-up flooring. The engine house has fared better and the massive concrete foundations for the engine-generators remain. They look to be about the right size and shape for vertical cross-compounds.

The building is one of the few visually intact turn-of-the-century powerhouses in the N.Y. area. This may be due to the fact that the H&M Ry. probably began buying its power from the utilities before the change-over to turbines and high-pressure boilers with its attendant structural changes. The Manhattan Elevated Ry. [East River & 74th St.] and I.R.T. [10th Ave. & 59th St.] power houses have been rather disfigured by modern "high efficiency" additions and subtractions. One other well-preserved structure is the old N.Y. Central RR power house in Glenwood, N.Y. It has fine brickwork, and oddly, half timbering. An adjacent structure is in use as a rotary-converter substation, receiving its power from Consolidated Edison.



*Gerald Weinstein photograph.*

## MISC NOTES

### NEWS OF MEMBERS

**CAROL CLARK** has been appointed Asst. Director of the N. Y. City Landmark Conservancy (17 Battery Pl., NYC 10004; 212 425-4085). To her might be directed suggestions for potential NYCLs.

**HARLAN H. GRISWOLD** has been awarded an American Assn. for State & Local History Award of Merit for his leadership in state & local history and historical preservation in Conn., while **MERRITT ROE SMITH** received an AASLH Certificate of Commendation for his effective use of local history in interpreting 19thC industrial technology (see SIAN Jan 78:8).

**DAVID MC CULLOUGH**, who has received a deserved galaxy of awards for his two most recent books treating in a hitherto unknown depth the conception and construction of the Brooklyn Bridge and Panama Canal respectively, has most recently been granted the American Soc. of Civil Engineers History & Heritage Award for his distinguished contribution to the literature of American civil engineering history."

### ARCHIVAL MATTERS

**EDISON PAPERS.** Reese V. Jenkins has been appointed director and editor-in-chief of The Papers of Thomas A. Edison [SIAN Mar 78:5], located at Rutgers Univ. The project will entail a 15-20 vol. edition of Edison's most important papers, a more comprehensive edition on microfilm, and several special pictorial and popular volumes about his inventions and their impact. Details on this project and other aspects of the Edison electric light centennial year (1979) will be found in the *N.J. Historical Commn. Newsletter*, Sept. and presumably ff. (113 W. State St., Trenton 08625.)

**BOSTON & MAINE RR.** A major collection of historical material, assembled in fragments over many years by the B&MRR Historical Soc., will be gathered and rationalized at the Univ. of Lowell (Mass.), in the special collections of the Alumni-Lydon Library.

**MAINE & N.H. GRANITE CO.** Rescued from near destruction upon demolition of the old barn that latterly had been the firm's offices, co. store, and stone-cutters' dormitory in N. Jay, Maine were the bulk of M&NHGC's records: letterbooks, receipts, estimates, and ca200 cu. ft. of working drawings. The quarry was opened in 1884, supplying "a very light gray biotite muscovite [it dwelt in ancient Russia??] granite with fine, even grain" for a wide variety of institutional, commercial, and residential buildings from New England to the Midwest, Grant's Tomb a notable example. Operations ceased during the Depression. The collection will be deposited in the Maine Hist. Soc., Portland.

**WATCH INDUSTRY.** The Milwaukee Public Museum has acquired the patent files of the Elgin Natl. Watch Co., formerly one of the two largest American manufacturers. the c11,000 patents—1868-1962—cover a wide range of horological topics including metallurgy and manufacturing machinery as well as basic watch technology. As did all forward-looking firms, Elgin kept track of the competition, the files containing much pertinent non-Elgin material. Donald Hoke [SIA], MPM, 800 W. Wells St., Milwaukee, WI 53233.

### TWO EXHIBITIONS AT MINN. HISTORICAL SOCIETY, St Paul

**THE POTTERY OF RED WING** (through March 1979): The ware of Minn's. major pottery center from the 1870s until Red Wing Potteries was driven from business by a protracted 1967 strike. Examples of turn-of-the-century utilitarian crockery; 1920s-30s artware; and dinnerware of the 1950s & 60s; and a signed piece of RWP sewer pipe recovered in Duluth. Also included: designers' notebooks; production prototypes & handtools; photos of factories & production processes; and sales catalogs. (Examples of other ware; catalogs; and extensive business records, collected by MHS, are available to researchers.)

**RAILROAD STANDARD: Building Plans, 1884-1916** through Feb. 1979): the first of a series of exhibits on RRing celebrating MHS's recent acquisition of the St. Paul home (1889-91) of "Empire Builder" James J. Hill. Architectural drawings for standard structures along the Gt. Northrn and Northern Pacific RRs around the turn of the century. Included are 1st, 2nd, and 3rd-class depots & freight houses, privies, water & oil towers, roundhouses, trestles, signal structures, ice houses,

and derricks. The drawings are among the 15,000 linear ft. of GN & NP records donated to MHS by Burlington Northern (see SIAN Jan 78:6).

Assisting in the exhibit was John Wickre [SIA]. Half-size blueprint copies of the exhibited drawings are avail. from MHS @ \$.50. Exhibit checklists and brief bibliographies also are avail: Nicholas Westbrook [SIA], MHS, 690 Cedar St., St. Paul, Minn. 55101.

## SIA AFFAIRS

There is no news of a general character, save to note that despite the fact you are holding an issue billed as September, 1978, no one is fooled. We all know that it is, in reality, now sometime early in 1979, if not later. Those of us who have to do with such things apologize. There have been exigencies. We do hope to maintain schedules in 1979. But in the meantime, please don't let any of this hamper the dispatch of your 1979 dues, as per the invoice that should have reached you before this.

There is, actually, some news: the Society's GHQ has lost a vital guiding spirit. Irmgard "Nicki" Taylor, our dynamic Membership Coordinator — and much more — has departed, for the West Coast, the result of an unfortunate job transfer. We were on the verge of going under (from an organizational standpoint) when — the good part — there appeared as though it had been foreordained, which perhaps it was, Anastasia "Ann" Geanacou, recently retired from long service with the World Bank, to take up the load. Your society, is thus, happily, back on the track, in hands quite evidently as capable as those we have lost. And the remarkable thing, the element in all this that leads to musing about Divine Intervention, is that Ms Geanacou grew up in *Woonsocket, R.I.*, the celebrated textile center abounding in IA, and one of those visited on the Fall Tour described above. She lived and played in the shadow of the very mills we all have come to know and love. Now that transcends coincidence.

## CHAPTER NEWS

**THE ROEBLINGS.** On 16 May, a miserable, rainy day, a few chapter members and some 50 other interested/informed people attended the Annual Test Run of the 1913 Allis-Chalmers triple-expansion steam pumping engine of the Garden State Water Co., just N. of Phillipsburg, N.J. While not as large as some of the other surviving pumping engines in the East (6 million gals./day; 36 rpm), it is more visible, standing in an open pit so that the entire engine is seen, from bed plate to cylinder heads. The pump serves as standby for the conventional electric centrifugals. A mailing list is maintained for this event. Write: Robert Liptak, GSWC, 590 Marshall St., Phillipsburg, NJ 08865.

## PUBLICATIONS OF INTEREST

James C. McCullagh, **Pedal Power in Work, Leisure & Transportation.** Emmaus, Pa.: Rodale Press (33 E. Minor St. 18049), 1977. \$4.95

John W. McGrain, **The Development and Decline of Dorsey's Forge.** In *Maryland Historical Magazine*, Fall 1977. pp. 346-352. Discusses Caleb Dorsey's 18thC ironworks on the Patapsco R. in Baltimore Co. Maryland.

Albert J. Pyle [SIA], **The Lower Lights.** In *Christian Herald*, Dec. 1977. pp. 48-51. "An unexpected storm over a turbulent Lake Erie led to the writing of one of Christendom's beloved hymans." Steamers and lighthouses.

Arthur Raistrick, **Two Centuries of Industrial Welfare—The London (Quaker) Lead Co. 1692-1905.** (Rev. 2d ed.) Moorland Publ. Co. (The Market Place, Hartington, Buxton Derbys. SK17 OAL) £4.50 post pd.

Norman Smith, **Men & Water: a History of Hydro-Technology.** NY: Scribner's, 1976. xiv + 239 pp., illus. \$13. Irrigation, water supply, waterpower, and the general problems today. (Rev.: *Technology & Culture*, Oct. 1977.)

Henry P. Walker, **Pre-Railroad Transportation in the Trans-Mississippi West: An Annotated Bibliography**. In *Arizona and the West*, Spring 1976. Univ. of Arizona (Library 308, Tuscon, Ariz. 85721).

Carter Wiseman, **Recycling the City**. In *Horizon*, January 1978. Several good IA adaptive uses.

Lionel D. Wyld, **Low Bridge! Folklore and the Erie Canal**. Syracuse, NY: Syracuse Univ. Press, 1978(?) 226 pp. illus. \$5.95.

Ross W. Yates, **Joseph Wharton's Nickel Business**. In *Pennsylvania Magazine of History & Biography*, July 1977, pp. 287-321. Nickel industry in American during last half of 19thC.

P.R. White, **The Excavation of Industrial Archaeological Sites**. In *Industrial Archaeology Review*, Spring 1978, pp. 160-167, illus. Differences in approaches between industrial and "conventional" sites, digging-wise.

David G. Wright [SIA], **Baltimore City Cast Iron**. Friends of Cast Iron Architecture (44 W. 9th St., NYC 10011), 1978. 12 pp., illus. \$.50. Sun Iron Building (1850-51) and descendents.

**The Ditch that Helped Build America [Erie Canal]**. 1970. The Canal Museum, (Weighlock Bldg., 301 E. Water St., Syracuse, NY 13202). 16 pp. \$1.50. PPD.

## REVIEWS

**THE BRIDGES OF NEW YORK**, Sharon Reier. N.Y.: Quadrant Press, 1977. 160 pp. \$14.95/8.95. (Avail.: Electric RR's Assn., 4 W. 40th St., NYC 10018.)

The political and economic as well as the engineering developments that determined the design of the incredible variety of spans (65 over navigable waters) in this "city of bridges". The photo reproduction is dull and the style breezy, but many of the illustrations are fascinating and rarely seen, and the author conveys her love for her subject and at the same time captures the human aspect of IA quite nicely, as in the accounts of literary and newspaper responses to these bridges. An appendix lists all, with data. *Thomsas R. Flagg, Teaneck, N.J.*

**THE RUN OF THE MILL**, by Steve Dunwell [SIA]. Boston: David Godine, 1978. 299 pp; 350 b&w illus. \$30.

*The Run of the Mill* is the first survey of the growth and decline of the New England textile industry designed for the general reader.

The text of the book's first two thirds, culled from secondary sources, is narrated in a fluent, lively style, with illustrations drawn from early English and American sources. Because illustrations of pre-1820 American textile operatives and machinery are scarce, the author relied on old stand-bys from English sources, which may or may not accurately illustrate this country's textile industry.

The author's vivid photos of mill workers in home and factory settings make up the book's final section. These portraits, accompanied by workers' remarks on their life and work, plus the author's terse comments present a personal view of the New England textile industry as it is today.

The book's stated objective is to be a survey as rigorous, authoritative, and exhaustive as possible, within the framework of available information. Emotion-charged sentences, such as "Yet industrialists, who lusted for the power loom, had to wait for inventors to solve the difficult engineering challenge it presented" (page 29) and "Two monumental towers soared above the mill, relieving its hulking mass with a Lombard Romanesque flourish—stating company philosophy with unmistakably phallic ostentation" (page 130), scattered throughout the book's first sections, make it clear that the facts have definitely been interpreted.

A rather serious gap in the story is created by a truncated treatment of late 19th and later 20thC labor unions, on which much material is available. Another problem inherent in the book is its lack of clarity in documenting the parallel, but distinctive developments of the cotton and woolen industries.

The problem of sometimes misleading captions is typified by one for an illustration of a weaver's shop from an 1836 publication which reads "Textile production in colonial America." Only a specialist would spot the problem, because the complete citation for this illustration (and

many others) is not available anywhere in the book.

In summary, the book has, indeed, succeeded in bringing to light aspects of past and present New England textile workers' lives. The photos in the last section, while profoundly different in character and purpose from Hines' earlier 20thC photos, are often touching, especially as enriched by the workers' comments. These may be this volume's greatest assets. *Rita J. Adrosko, Nat'l Museum of Hist. & Technology.*

## MORE ON THE TRENTON N.J. INVENTORY

The recently published inventory of Trenton's historic engineering and industrial sites, noted in SIAN March 78:4, undoubtedly is a contribution to IA but it does have significant shortcomings. While at first glance a more polished visual production than the usual HAER typewriter-set counterparts, the Trenton Inventory in fact is carelessly done, disregarding many of the important organizational details that make the HAER volumes such invaluable reference tools.

One of its most glaring flaws is the absence of a table of contents, an index, or even subject headings for groupings of types of structures. The reader must thumb through the entire publication to find a particular company name or even to get a general sense of the publication's format. And if you are looking for a company that may have been a second or third occupant of a site, it will be found only by reading all entries for a given category of manufacture.

The illustrations are disappointing—more than half of them are historical rather than current. This may be in part because there is a certain lack of visual excitement in some of Trenton's IA, but even the celebrated Roebling wire works, for which perfectly respectable structures survive, is illustrated not in its present form but by a rather unimpressive "period piece". Current photographs, where they appear, often are poor in quality and many illustrations are so small as to be nearly useless. The Henry Clay & Bock & Co. factory (producers of fine cigars), described as the "most distinctively designed factory in Trenton" certainly deserves more than a 2" x 3" illustration, the lower third of which is devoted to a snow-covered walkway.

Two of the three photographs of engineering structures are current, "pretty", but not the stuff of which an inventory should be made. One is a night view of the iron Pratt-truss Jackson St. Bridge (1888) in which the most conspicuous features are six bright lights. In the view of Roebling's Sons nice little "Shaky Bridge", with its wood-shingled towers (intended to replicate John A. Roebling's Niagara Gorge Bridge), the snow again appears to be of more interest than the structure.

The greatest problem with the illustrations, however, is the absence of legends. Only one photograph is labeled and where there is nothing descriptive in the scene the reader cannot readily determine whether the photograph belongs with the statement preceding or following it. For the historical graphics no dates or sources are given. Anyone could be forgiven for including such striking historical photographs as the view of Trenton's bottle kilns (long since destroyed), majestically lined up along what we can suppose, after some scrutiny, must be the Delaware & Raritan Canal, or the splendid frontispiece of what few readers would recognize as the mammoth reduction gearing of a DeLaval steam turbine, but such guessing games add nothing to the work's usefulness.

There seems to have been minimal editing, leaving us with such howlers as "skewered" bridges (twice), while civil engineer F.C. Lowthorp reaches us as "Larvthorp." Overcapitalization runs amok. Finally, no coordinates are given for the sites. That might be acceptable were the inventory's only map readable without a magnifying glass.

There is a great deal of information in the Trenton Inventory but you will tear your haer trying to find it. Available: HAER Inventory, Dept. of planning & Development, 10 Capitol St., Trenton 08618. *Susan H. Myers, Nat'l Museum of Hist. & Tech.*

## CONTRIBUTORS TO THIS ISSUE

Robert M. Frame III, Minnesota Historical Society; Laurence F. Gross, Merrimack Valley Textile Museum, North Andover, Mass.; David H. Shayt, National Museum of History & Technology. With thanks.