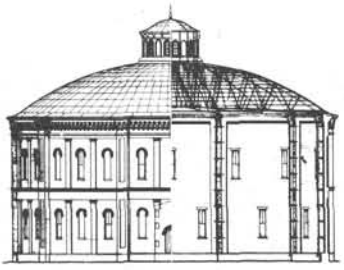

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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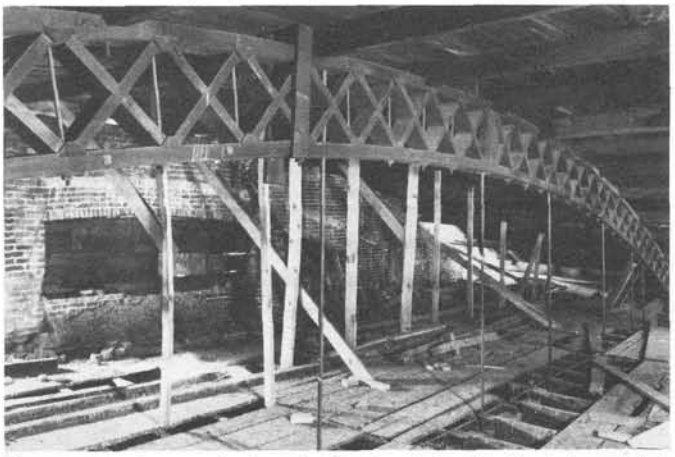
POSSIBLE EARLIEST EXTANT HOWE TRUSS

The HAER Emergency Recording Team has identified and documented what may be both the first example and the last survivor of the first generation of barrel-vault trainshed arches, and at the same time, the earliest extant Howe truss. (Patented by Wm. Howe 1840; widely used in RR bridges & roofs into the 20thC). The single arch-rib supports the roof, between the brick front and rear walls, of Baltimore's President St. Station, built in 1849-50 by the Phila., Wilmington & Balto., itself the earliest standing large city RR station in N. America [SIAN Jan 76:3]. Although the station has been under scrutiny for several years by historians and the HAER team, only this fall was access to the attic obtained, resulting in discovery of the arch.



Howe trussed arch supporting the roof of President St. Station. The timber arch tie is barely visible beneath the floor joists, at the lower ends of the vertical hanger rods, center of photo. *HAER photograph by William Edmund Barrett [SIA].*

The arch is of heavy timber construction, spanning 66 ft., formed of two chord-ribs stiffened by typical Howe-pattern trussing with wood diagonal struts and iron radial ties. The thrust of the arch is resisted by a horizontal timber tie supported by iron vertical hangers from the arch. The tie doubles as a girder carrying the attic floor joists, whose outer ends bear in the end walls.

The station and its original trainshed (since replaced by a nondescript c1913 shed) may have been the first to incorporate this truss type in a shelter structure. The system was used, with modifications in detail, for every trainshed of similar form for the next twenty years. In trainsheds, the arch ties invariably were iron.

According to Carl Condit [*American Building Art—the 19thC,* 1960], the Philadelphia terminus of the PW&B was the prototype for later mammoth barrel-vaulted sheds, but President St. preceded it by one year. The two stations were almost identical in style and both were designed by George A. Parker, PW&B engineer. While this last surviving trussed arch is not in the shed portion, it is identical to those used in sheds, except for the wood tie. *ED, DZ.*

Anyone having information about this or other structures of a similar nature is requested to contact: Eric N. DeLony, HAER, Natl. Park Service, Washington, DC 20240.

AND YET ANOTHER WHIPPLE TRUSS

They're coming out of the ironwork. Followers of the breed have lost exact count now, but this seems to be, as described in the N.Y. State inventory form, ". . . oldest of approximately six remaining Whipple bowstring bridges in the state." And not counting the one found recently in Coshocton, Ohio [SIAN Mar 76:3]. It is, clearly, the upsurge of interest in our IA in general, and early iron bridges in particular, that has alerted people to the recognition and importance of these particular structures. Designed and patented by Squire Whipple of Albany in 1841, the bridge was the first in the world, all of iron, to be widely produced as a "standard design." Literally hundreds were manufactured by a variety of builders, almost all in N.Y. State.

The invention was inspired by a major enlargement of the Erie Canal starting c1840; the majority of the early Whipple bridges were built as replacements to carry common roads over the widened canal.

In 1969, when HAER recorded an 1867 example in Albany, only one other was known to exist. The rash of recent "discoveries" is entirely logical for when the Erie Canal was superseded by the N.Y. State Barge Canal c1915, great numbers of these small, easily demountable trusses apparently were sold off by the state and purchased for re-erection on minor public and private roads. Hence their present hinterland habitat.

The new truss, spanning 65 ft, is near Johnstown, Fulton Co. It bears cast-in legends on the Whipple patents, and the builder: Shipman & Son of Springfield Centre, N.Y. It is one of the few survivors thus acknowledging its dual paternity. The bridge is abandoned but in good condition. It will be nominated to the Natl. Register by the state Divn. for Historic Preservation.

1976 FEDERAL LEGISLATION FOR PRESERVATION

1976 was a banner year for new federal legislation to aid in the preservation of historic properties. Of special IA interest are (1) the Public Buildings Cooperative Use Act (PL94-541) authorizing GSA to purchase and renovate buildings of historic or architectural significance for federal office use; (2) the RR Revitalization & Regulatory Reform Act (PL94-210) which in section 706 provides for the preservation of significant RR stations, for planning and feasibility studies, and for the acquisition of historic buildings for AMTRAK passenger stations; (3) PL94-462, which reauthorizes the Natl. Fndn. on the Arts & Humanities (NEA; NEH), for fiscal years 1977-80, and establishes a new Inst. of Museum Services, under HEW, to make grants for the operating costs and other expenses of museums (NB: this last section has been authorized but not funded).

Other legislation introduced into the Congress, but not enacted, included further tax incentives for preservation (S. 204, HR 432), the Bridge Safety Act (S. 3744, HR 15559), and Maritime & Naval Preservation (S. 228, HR 8722). A comprehensive report on this legislation, both enacted and proposed, is contained in a *Special Issue of the Report of the Advisory Council on Historic*

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