

LIA21490

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET

NEW YORK 17, N. Y.

November 1, 1957

SUBJECT: PREPRINTS-SWEET'S CATALOGS
ON PLUMBING, ROOFING AND
FLASHING

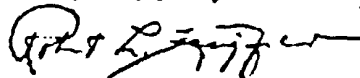
To Members of the Lead Industries Association:

Attached are preprints of our catalogs on "Lead in Modern Plumbing" and "Modern Lead for Roofing and Flashing" which will appear in the 1958 Sweet's Catalogs to be distributed in January, 1958.

Both of our catalogs will appear in the Sweet's Architectural volume with a circulation of 19,000 architects, and the Light Construction volume with a circulation of 27,000 builders of small homes and other light construction projects.

Additional copies of these preprints are available and in quantities less than 25 will be supplied members free of charge. Quantities above this amount can be supplied members at our cost of \$2.35 per hundred.

Very truly yours,



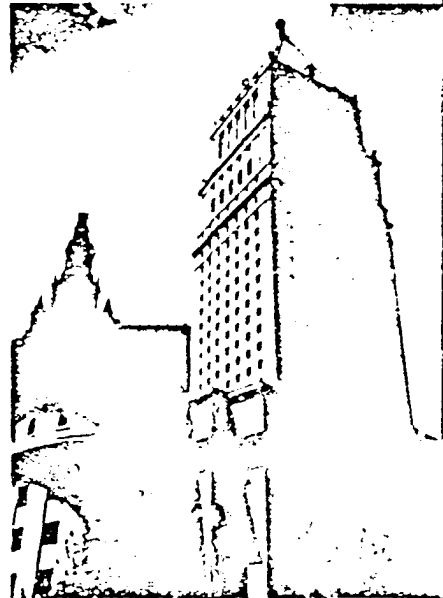
Secretary.



MODERN

SHEET LEADfor roofing
and
flashing

A small home in Stamford, Conn., with 2½ lb. hard lead flashing throughout, including chimney cap and gutter linings. Provost and Everett, architects.



The Federal Court House, New York City, furnished throughout with 3 lb. hard lead. Through-wall flashing, cupings, cornices and gutter linings are included. Cass Gilbert, architect.



LEAD INDUSTRIES ASSOCIATION • NEW YORK

MODERN sheet lead for roofing and flashings

In recent years the cost of lead roofing and flashing has been lowered to a point where it is comparable—frequently even less—than the cost of other commonly used metals. This is because modern metallurgy has produced hard lead—an alloy of lead with between 6 and 7.5 per cent antimony—which is stronger and may be used in thinner, lighter sheets while retaining the well known resistance of lead to corrosion.

for the largest building or the smallest home

Thus the owner of the largest building or the smallest home now has within his reach this fine sheet metal which has long been considered a hall-mark of good construction. Lead's beauty and longevity have featured the great buildings and finest residences of the Old and New World for centuries. The lower cost and greater strength of the modern alloy now extend its usefulness to modern buildings of all kinds and sizes and in all locations—urban, rural, industrial or by the sea. If properly specified and applied, it should

last as long as any building on which it is installed.

the advantages of lead

- Does not stain adjacent stone, paint or other materials when water runs over it and then onto the adjoining structure.
- Beautiful color, harmonious with all other materials and acquiring a natural patina that improves with age.
- Flexibility that permits easier, cheaper installation and better fitting to irregular surfaces.
- Most durable common metal, noted for corrosion resistance in all kinds of atmospheres—industrial, urban, rural or sea coast.
- About twice as thick as other sheet metals commonly used, adding even further to its durability.
- A homogeneous metal all the way through, not just a coating, enabling it always to give the same uniformly good service regardless of surface impairment.

installation of sheet lead

There are just three important things to bear in mind in order to obtain a satisfactory installation with hard sheet lead—specify the proper thickness or weight, use sheets of proper size, and install with cleats and loose-locks so that each sheet may expand and contract independently of every other sheet and the surface to which it is applied.

The thickness of sheet lead is usually designated by its weight per square foot. The weights of hard lead for roofing and flashing are as follows:

$$2\frac{1}{2} \text{ lb. per sq. ft. is } \frac{5}{128} \text{ in. thick}$$

$$3 \text{ lb. per sq. ft. is } \frac{3}{64} \text{ in. thick}$$

For most applications in residential work, where areas covered are generally small and sheets are narrow, 2½-lb. hard lead should be specified. For most applications on large buildings where areas covered are apt to be large and sheets wider, 3-lb. hard lead is recommended.

For general flashing purposes, individual sheets should not exceed 8 ft. in length. However, for unusually wide flashings, say 24 in. or more, the length of sheets should be reduced to

6 ft. For general roofing purposes, sheets 24 in. wide and not more than 4 ft. long should be used.

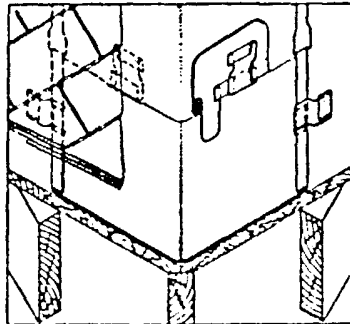
Lead roofing and flashing sheets should be secured to the underlying surface by 2½-lb. hard lead or 16-oz. copper cleats loose-locked into the edges of the lead sheets. Where the lead sheets are particularly small, such as flashings interwoven with shingles or slates, the lead may be nailed along one edge only. Adjoining lead sheets should be loose-locked together so that expansion and contraction are confined to individual sheets. Sheets should never be soldered together, solder only being used to place gusset pieces and the like in individual sheets. Where lead is built into masonry walls or otherwise rigidly held, continuous loose-locks should be used to join it to exposed sheets. Edges of lead sheets turned over copings, cornices, etc., should be loose-locked to continuous cleats to secure them. Loose-locks should be filled with non-hardening compound such as Vulcatex No. 7200 on flatly pitching surfaces.

In other words, an understanding of the fact that expansion and contraction must be localized in small areas and each sheet allowed to move independently of others will lead to successful installations.

MODERN

SHEEP LEAD

● typical lead flashings details
OPEN VALLEYS

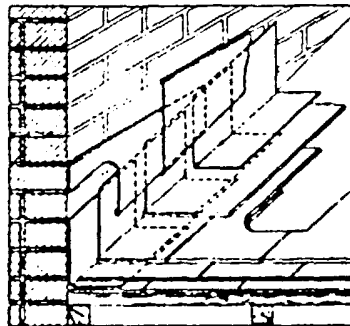


Detail of a hard lead valley flashing showing cleats holding valley sheets at the sides and folded into the loose locks which joint the sheets at 8-ft. intervals along the valley.



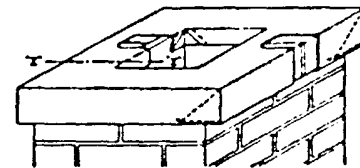
Photograph of a hard lead valley flashing being installed on a residence at Greenwich, Conn., showing one 8-ft. sheet in place, held by cleats at the side and turned back at the upper end ready to be loose-locked to the next sheet.

● STEPPED SIDEWALLS



Detail of hard lead stepped sidewall flashing. Base flashings are interwoven with the shingles or slates and nailed at the top. Stepped cap flashings, of a length dependent on the pitch, overlap the base flashings and each other about 4 in. Free edges of lead flashings should be turned about 1/2 in. for rigidity. Cap flashings are omitted for shingle or wood siding which overlaps the base flashing.

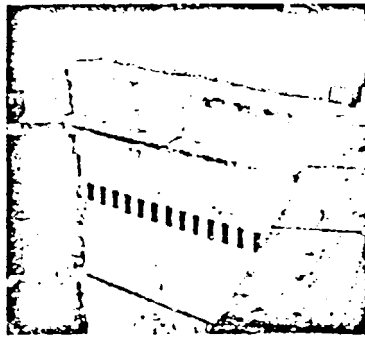
CHIMNEY CAPS AND FLASHINGS



Detail of a lead chimney cap as shown on the house on the cover. Outside corners are folded and inside corners are closed by gussets soldered in place. The caps are either turned back under projecting chimney tops or held down by cleats built into the masonry with the cap locked over them. Chimney base flashings are installed as with other metals, the detail for sidewall flashings (left) applying to the sides of the chimney.

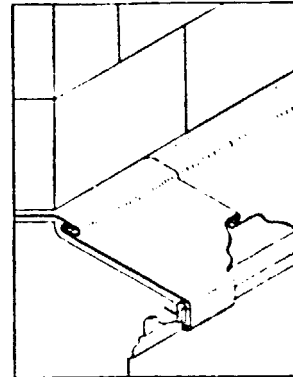
MODERN SHEET LEAD

CORNICE, COPING AND THROUGH WALL FLASHINGS

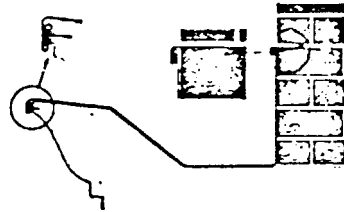


Architect JAGOW & HEIDELBERGER

Photograph of hard lead cornice and coping covering on the library at Lynbrook, Long Island, N.Y. The detail at the right shows a method of installation, with loose-locked cross seams at 8-ft. intervals. Loose-locks are also provided where the flashing emerges from masonry and along the outer edge of cornices.



BUILT-IN GUTTER



Photograph of hard lead built-in gutter on a new dormitory at Duke University and a detailed drawing of the method of installation. A continuous cleat anchors the lead at the edge and loose-locked cross seams in the direction of flow, filled with non-hardening compound, are provided at not more than 8-ft. intervals.



Architect SIX ASSOCIATES

LEAD ROOF CONSTRUCTION



Lead roofs may be of either the standing seam or batten type. The latter is preferred for large roofs while the former may be employed for porch, bay window or other smaller roofs. Cleats are staggered at 24-in. intervals along the sides of the sheets. Horizontal flat loose-locked cross seams in the direction of flow are provided at 4-ft. intervals and have cleats folded into them. Cross seams should be staggered in adjoining bays. Hard lead batten roof on the New Jersey Reformatory at Rahway is shown during installation.

SERVICE

The Lead Industries Association is prepared to assist with technical information and specifications applicable to your specific problems. Write to:

ARCHITECTURAL DEPARTMENT
LEAD INDUSTRIES ASSOCIATION
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