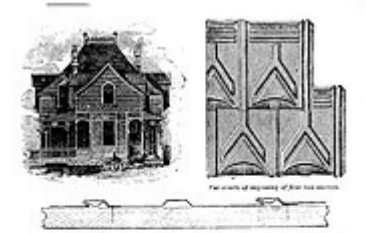


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ROOFING FOR HISTORIC BUILDINGS

Metals

Metals are useful both as the roof surface itself, and as important components such as flashings, valleys and gutters on roofs of other materials. The malleability of metal allows it to be formed and joined making it useful for weatherproofing the junctures and angles on roofs. These same properties also make it suitable for roofing curved and irregular surfaces and for roofing where the pitch is too low for simple overlapping material to provide waterproofing.



IF YOU ARE INTERESTED IN ROOFING, send for our price list and colored sheet, which is special to the trade. We are pioneers in the introduction of practical metal shingles, and no imitations have yet produced their equal. Our goods are largely used throughout the United States and Canada; are used by the Government and railroad, approved by the Insurance companies and many leading architects and builders. They are lighter than slate, and will last longer without repairs, and the low price of insurance on our roofing will be a great time, more than makes up the difference in price when wood shingles are changed.

As soon by the old, our shingles are the same to-day as when first introduced. Sometimes, no sheets or cuttings are necessary in using our shingles. The lock is simple and perfect, with corrugations across the top, and leveling corrugations across the exposed end of the shingles, which holds and holds the shingles firmly in the underlying course. They are easily applied, and any one who can lay a wood shingle can lay these. We furnish them in lead color, made from charcoal roofing, or painted both sides, and specially galvanized tin plate, which is superior to galvanized iron; and rolled copper and steel plates. We keep on hand a full line of roofing materials.

Our shingles received the highest and only award for metal shingles at the American Centennial, held in this city, October, 1876, and New Orleans, Exposition, 1874.

The National Sheet Metal Roofing Company.
301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 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longer spans and eliminating the need for sheathing or closely-spaced framing. Thus, corrugated iron was well suited for inexpensive, quickly assembled buildings, making it a common material for the construction that accompanied the California Gold Rush. Later in the century, manufacturers offered flat sheets with edges pre-formed for standing seams or in a V shape as economical alternatives to onsite fabrication.

Unlike the simple lapped installation used for corrugated or V-edge sheets, most site-formed metal roofing utilizes various folded, interlocking joints to create a weatherproof covering. Metals that can be fused (lead) or soldered (tin, terne, zinc, copper) can have sealed joints, thus removing slope as a factor in the water-shedding performance of the assembly. Solder was usually applied to seal interlocked seams that had been folded flat. Flat seams joined small sheets of metal to cover curved shapes or very low-sloped roofs. They were also used to create long strips of a metal such as tinplate, which was only available as small sheets. When the long strips were laid parallel to the slope of a roof (minimum 2 in 12 slope), the long edges could be joined without solder if the joints were raised above the rest of the roof surface as a rib. Usually the adjacent edges were folded over each other creating a standing seam. Many metals were used for this common roof. Variations on the system formed the seam over battens or used separate cap pieces to join the bent edge flanges. Although requiring slightly more material, a standing seam better accommodates the expansion and contraction of metal than does a flat seam roof.



Copper was put to effective use on the roof of the 1913 Handley Library in Winchester, Virginia. (NPS photo) [click image for larger view]

metals continued. . .



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