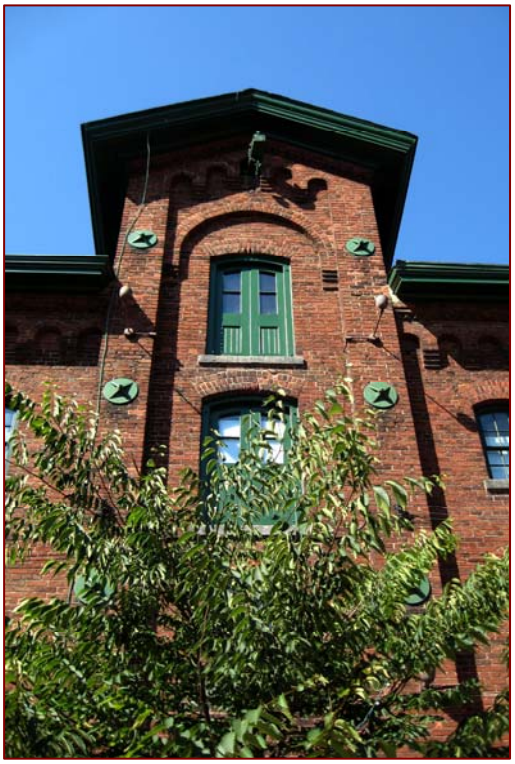
for September 9 , 2007

Architecture:
Tie Plates & Corbels

Classic Stone Distillery Tie Plate, 1860



The Maltings Tie Plates, mid-1860s

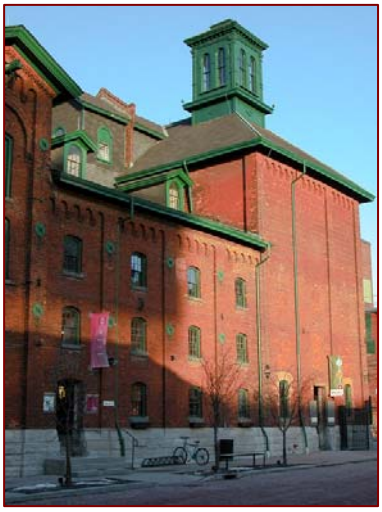
*T*his is the first in an occasional series on the architecture of the Distillery District – the architects, plans, design and construction details that created some of Canada's finest Victorian industrial architecture.

Two, often related, architectural elements that are critical to both the construction and distinctive look of the site are "tie plates" and "corbels". In the case of Gooderham & Worts distillery, ***tie plates*** are the round, iron plates found on exterior walls that anchor iron rods running through the wall and attaching to interior structural timbers, thus tying, or binding the exterior walls together. G&W tie plates are usually painted dark green and are larger and more decorative than they had to be from a strictly functional perspective. In the brick buildings, they tend to be placed in rows along the projecting pilasters, creating a nice rhythmic pattern.

Meanwhile, ***corbels*** are exterior or interior projections of brick, stone, plaster or other materials that jut out from a wall to support a load, such as a structural beam. In the case of the Distillery District, stone and brick are the dominant materials used. On exterior walls, corbels are often used as a decorative element – as in the arcaded red-brick corbels running along the top

and supporting the roofs of many buildings. On interior walls, corbels are most often used to support the structural beams that, in turn, are directly connected to the tie rods and exterior tie plates.

Tie plates and corbels are found almost exclusively on the earlier buildings at the Distillery District, including the 1859-'60 Stone Distillery, 1863-'64 Maltings-Cooperage-Office buildings, and the 1873 Pure Spirits and Cannery Buildings. A shift in construction seems to have occurred around the 1880s. This is nicely demonstrated by the Kiln Building on the west side of Trinity Street at Mill Street. Originally, the Kiln Building was the same height (3-stories) and construction (tie plate) as the adjoining Malt House. But when the Kiln Building was reconstructed between 1880 and 1884 to add height and eliminate openings, the exterior tie plates were also removed. (Visitors can easily see the bricked-in windows that used to march along the Trinity Street façade in line with the Malt House windows.)



No tie plates on Kiln Building

Double, rather than single, structural beams, sitting on corbels (a.k.a. "cobles") is a particularly distinctive construction feature in each of the tie-plate buildings. An admiring article in *The Globe* of February 7, 1862 described the advantages imparted to the new Stone Distillery:

> As an instance of the care taken in the erection, we may state that the entire number of beams, which form the foundation for each story, are all double, so that not only is additional strength secured, but in the event of the wood becoming diseased, the faulty stick of timber can be removed and by an easy contrivance replaced by one more reliable. In order, however, to guard against the probability of the timbers becoming rotten, not a single beam is inserted into the walls. Instead of this they rest upon what are termed "coble stones," *[corbels]* or projections from the inside of the wall. The air is thus allowed to circulate around the ends of the timber, the point at which decay is first observed – and thus the beam will be made to last much longer.

One other advantage, that perhaps prevented the walls of the Stone Distillery from collapsing during a huge fire in 1869, was the fact that the timbers were not solidly embedded in the masonry walls, but sat freely on the corbel. As they burned, they fell clear, rather than pulling the limestone walls down as they collapsed.

Cannery double beams on stone & brick corbels

Stone Distillery double beams on limestone corbel

Please send your comments or questions to Manager of Heritage Services, Sally Gibson, sg@thedistillerydistrict.com.