

“HEAT EXCHANGER”

The 143 degree water coming directly from the hot springs must be cooled about 43 degrees for bathing purposes.

Heat exchangers are used to lower the temperature, and two types are in use here. First, the hot water is circulated through pipes in the air cooling tower. The air surrounding the pipes absorbs much of the heat, but if not enough, a fan is activated to increase the circulation so the air absorbs more.

If this procedure does not reduce the water's temperature to the desired level, the water is passed through the silver horizontal tanks in this building. In the tanks are brass tubes through which cold city water circulates. This cold water absorbs more

heat. While more efficient than the air cooling tower, the tanks are more expensive to operate because the city water must be purchased.

Thermostats monitor and automatically control the entire cooling system. The cooled water as well as hot water is piped to the bathhouses where both are blended to the correct bathing temperature.

Cooled hot water has never been easily obtained. In the 1800's, pits were dug in the gravel beds of Hot Springs Creek where it was cooled. Later, open tanks, long iron pipes and wooden flumes were used. Some of these cooling techniques were effective, but not as much as the automated equipment you see here.

