

Cold and warm air flues.....	8,568 lineal feet.
Flues for ventilation.....	19,224 "
Chimney flues.....	18,600 "
Arched brick ventiducts.....	800 "
Galvanized iron and earthenware ventiducts.....	11,938 "
Cast-iron pipe, 6 and 4 inches diameter.....	4,400 "
Wrought-iron pipe, 1 inch diameter and upwards.....	111,000 "

## DRAINAGE.

The main drains from all the Buildings discharge into the Ottawa River at three points, at the northern base of the hill. They are sunk so as to drain the respective boiler-houses, which, as previously stated, are 10 feet below the level of the basement floors. This unavoidably entailed deep cuttings in rock of irregular strata and difficult of excavation. The upper portions of the trenches were, however, used as a channel for the cold air ducts.

*Parliament Buildings.*—The main drain runs westward from the boiler-house, passing in rear of the wing, and immediately under the cold air duct, to the brow of the hill, a distance of 355 feet. It is 4 feet 6 inches high, 3 feet wide, arched on the top and bottom, and built of cut block limestone. All the pipe drains from the various stacks of water-closets, wash-basins, &c., on the west side, empty into this drain near the north west angle of the wing. It is continued down the steep face of the bank to the margin of the river in a cast-iron pipe, 268 feet long, 12 inches diameter, where it joins a wrought-iron tube, 22 feet long, built into a crib sunk at short distance from the shore. This crib serves to keep the pipe clear and protect it from injury by ice or otherwise. The eastern side is drained by a number of pipes leading from the various closets, wash-basins, &c., which connect with a leading earthenware pipe, 12 inches diameter. This is carried to the brow of the hill and joins the main drain from the Eastern Block.

*Eastern Block.*—The main drain from this Block runs eastward from the east side of the house a distance of 65 feet, where it is joined by a branch 87 feet long. From this boiler-point it is continued northward under the line of one of the ducts to the brow of the hill. It is 432 feet long, 4 feet 6 inches high, and 2 feet 6 inches wide, built of cut block limestone, and arched both at the top and bottom. Into this the various pipe drains from the closets, wash-basins, &c., are emptied at several points. From the brow of the hill it is continued in a brick barrel drain, 2 feet diameter and 720 feet in length, to the river, where it is joined to a boiler-plate tube of the same diameter, the end of which is built in pier-work carried out to deep water.

In addition to this, there is a surface drain, running from the north end of the Block along the west and south fronts, with connections from the several areas. This drain is continued out to the east brow of the hill, and thence downwards along the face of the ravine to a junction with the 2-foot barrel drain above mentioned, at a point 85 feet from its commencement.

*Western Block.*—The principal drain for the Western Block runs out of the north side of the boiler-house, and turns toward the west, whence it is continued to the brow of the hill under the line of one of the cold air ducts. It is 367 feet long, built and of similar dimensions and class of masonry as that for the Eastern Blocks.

All the drains from closets, wash-basins, &c., discharge into this in rear of the building. From the brow of the hill to the river it is continued in a brick barrel drain, 2 feet diameter, 476 feet in length, the end of which is united to a wrought-iron tube built into a crib sunk in the river at a distance of 56 feet from the shore.