NOTICE OF THE DISCOVERY OF EARTHENWARE JARS IN THE WALLS OF DWELLING HOUSES IN DUNDEE, WITH SOME INSTANCES OF THE USE OF JARS IN ARCHITECTURE. BY ALEXANDER HUTCHESON, ARCHITECT, DUNDEE.

During the removal of several old buildings on the south side of Nethergate, Dundee, to make way for a new street, in the month of July last year, Mr George Lowdon, optician, Dundee, called my attention to certain "jugs" or jars which, he said, were to be seen built into the walls of one of the old houses about to be demolished. I lost no time in visiting it. The building was (for it has since been removed) of three stories in height, with attics in the high pitched roof, which was covered with grey stone slates, and filled up the whole space between two narrow passages called Scott's Close and Harris's Close, the former being on the west side of the building, and close to the site of Whitehall Palace, said to have been used as a residence at different times by James IV., James V., Mary, James VI., and Charles II. It was on this side that the jugs were seen. Three of them were placed in an almost equilateral triangle between two of the west windows of the upper floor, and two at the south side of a window at about the same level in a little room occupying the top of a projecting stone staircase. A sixth jug was afterwards discovered at the north side of the northernmost of the two centre windows, when the roof of a cross two-story wing was removed. All the jugs were built into the outside of the wall, and had their orifices flush with the face of the wall. wall was broken down, the "jugs" were found to be of various shapes, but all of a reddish-brown glazed ware, having handles on one side. One of the specimens had evidently never been used previous to being built into the

wall, because some of the scoriæ of the kiln still adhered to the bottom of it. When placed in the walls the jugs lay horizontally, with the handles to

one side. Two of the jugs were very much decayed, so much so that only fragments of them remained in the holes. Others were fairly preserved. One of them (fig. 1) measured $3\frac{3}{4}$ inches across the mouth, widening out slightly in the inside, by 4 inches deep. The remaining two (figs. 2 and 3) measured $2\frac{1}{2}$ inches across the mouth. Great care was exercised when the walls were broken down, but only two of the jars could be taken out tolerably whole; and these (which are



Fig. 1. Jug (wide-mouthed) found in the Walls of a House, Dundee (4‡ inches high).



to be deposited for preservation in the Dundee Museum) were kindly

Figs. 2 and 3. Jugs found Built into the Wall of a House in Dundee (5\frac{1}{2} and 5 inches high).

lent by Mr Mackison, burgh engineer, F.S.A. Scot., for exhibition to the Society. The "jugs" all adhered so firmly to the mortar and some of them were so much decayed, that they crumbled to pieces on the mortar being broken. To all appearance they had been built into their places when the wall was originally erected.

My friend, Mr A. C. Lamb, F.S.A. Scot., who was most assiduous in his efforts to secure the safe removal of the "jugs," and to whom I am indebted for the excellent photographs of the building exhibited herewith to the members, recalled to my recollection the discovery at a prior date of a similar arrangement of jugs in another old building, known as Wedderburn's Land, which stood further to the south, and of which Mr Lamb has fortunately also preserved a photograph. In this case the jugs were placed at regular intervals beneath the sills of the upper floor windows.

Unfortunately, in this instance, none of the jugs were got out whole; and the fragments were not preserved. One of the "jugs" was stated to have been of a curious green glass, and of antique shape. The tradesman who told me this, remarked that he had seen other examples in the town; but a most careful search in the localities he indicated failed to discover them, nor, in being appealed to, could he point them out, and probably the buildings where they occurred have also been removed.

In the course of my inquiries, I learned that, so far from the "jugs" being confined to the outside of Wedderburn's Land, the workmen who took down the walls discovered them in great numbers in the inside walls of the staircase. The staircase was a wide and ample rectangular adjunct on the west end of the main building, and was separated therefrom by a thick stone wall or gable, and it was in this wall, as well as in the front or outer wall of the staircase, that the jugs were found in such numbers; and as in the building in Scott's Close, they were laid horizontally, and had their mouths flush with the inside face of the wall.

In this case, being towards the inside of staircase, the openings were all plastered over, but the jugs had not been filled with the plaster, of which there was only so much in the neck or mouth of each jug as was sufficient to hold the plaster work.

The use of jars or vases in architecture is not unknown, but so far as I

am aware no instance has been previously noted of their use in the walls of dwelling-houses.

It has been suggested that these jugs may have been intended for birds' nests. Instances occur in continental cities of provision having been made in steeples for this purpose. Fosbroke says that pigeon holes were common in the roofs of Roman houses, and mentions that the upper story of Egyptian houses is almost always devoted to pigeons. Whately, in her Letters from Egypt, says,—"A curious addition to most villages is the Egyptian pigeon-house, which is quite original. It consists of a great number of rude earthenware pots, built into a mud wall in the form of a dome or little tower; in this the birds make their nests, and it is very singular to watch them all coming out of their jars in a flock, and flying off to seek food, and returning at night, and each knowing its own place." In Persia, and other parts of the East, pigeons are kept in multitudes for the sake of their manure; towers are built on the outskirts of the towns for them, and vast clouds of these birds may be seen issuing from them, returning to them or whirling in the air around their pinnacles. Mr Morier mentions these pigeon towers around Ispahan. Certain Egyptian paintings and mosaic pavements represent pigeon towers. In the words "They shall fly as doves to their windows," the Scriptures probably alluded to some such kind of pigeon-house.

The ancients employed urns or vases of terra cotta to make their arches as light as possible, the apertures being placed at top; within and around them they poured small stones and cement. Denon, in his Journey in Sicily, thus describes arches of this construction which he found at Vianisi in Sicily:—"A sort of phials, 8 inches long by 3 inches wide, without bottoms, and filled with mortar, have their necks introduced into each other in a row, covered over again with a general coat of plaster, on which a brick was laid flat, then a fresh bed of mortar and another brick upon this like the former." It was scarcely possible ever to destroy semicircular arches of this construction, and it was with difficulty that he wrenched off a few fragments. Another writer says that this construction was used to ease the weight, and that the phials had no bottom, lest

water might collect in them and render them heavy. Examples of vases of terra cotta being introduced into the spandrils of arches to lighten them occur in Rome, at the baths of Diocletian, in the vaults under the church of St Sebastian, and at the circus of Caracalla, near Rome.

Occasionally this mode of construction was used for weightier structures, and the domes of the church of St Stephen at Rome and St Vitali at Ravenna are instances. St Stephen's church, originally a circular temple, was consecrated to the Christian religion by Pope Simplicius I. in the year 470, and underwent various transformations, particularly in the twelfth century under Innocent II., and in the fourteenth century, when it was restored under Nicholas V. and Innocent VIII. The vaulting was formed of small vases or tubes of terra cotta. These were from 6 to 7 inches long and 3 inches diameter, the exterior surface spirally channelled to give greater hold to the mortar. They were all placed perpendicularly with the points downwards.

The church of St Vitali at Ravenna, built in the sixth century, under the reign of Justinian, externally octagonal, is internally circular, with a central dome, constructed in the lower 12 feet high of ranges of vases of terra cotta 22 inches high, 8 inches diameter and having small handles. These are placed perpendicularly one on the other, the point of the upper in the mouth of the lower; the remainder of the dome is constructed with small tubes of terra cotta similar to those at St Stephen's at Rome, placed almost horizontally one within the other, and forming a spiral line from the base to the summit. These are also strengthened by another line of the same tubes, as well as several layers of the vases placed upright, and the inside and the outside are covered with mortar. This method is not peculiar to this church; it may be also seen at the ancient Baptistery of the Cathedral. D'Agincourt shows an example of an antique gate in Sicily, having the arch formed of three rows of vases of terra cotta placed one within the other. These vases are shaped much like those described above, but without the spiral channelling.

Fosbroke states that a similar construction was sometimes used on purpose to improve the acoustic properties of buildings. Evelyn, in his Memoirs, states that he "saw a room at Padua covered with a noble cupola built purposely for music, the fillings up or cove between the walls being of urns or earthen pots for the better sounding." Marryat, in his Pottery and Porcelain, says that at the church of St Tomé, "the tower is of Moorish architecture, and it has some panelling, the arches of which spring from alternate columns of green and red glazed pottery." Pots of red earthenware were also placed below tesselated pavement, although for what purpose is not quite clear.

It may be questioned if any of these instances throw a light on the purpose of the Dundee jars, unless, perhaps, in the case of Wedderburn's Land, where the jars were built into inside walls. The date of Wedderburn's Land has been preserved in a rather singular fashion by means of the numerals 1684, of large dimensions, in wrought iron, being secured to the face of the wall by strong clasps, although I should ascribe it as well as the house in Scott's Close to an earlier date. The jars belong to a type quite as old, if not older, than the buildings.

Owing to the narrowness of Harris' Close, it was found impossible to procure a photograph of the east side. A striking peculiarity of this side consists in the four narrow niches near the eave. These niches were all of one size, placed at regular intervals, and measured 20 inches high, 5 inches wide at back, $7\frac{1}{2}$ inches at front, and 3 inches deep. Each had a sill or ledge projecting 4 inches from the face of the wall, all much wasted and worn, and rounded off by the weather and the lapse of time. These niches may at one time have contained statuettes. It is a pity that more information cannot be obtained about this very interesting old house.

On a review of the case, I should be inclined to ascribe this instance of the use of jugs to some superstitious observance now forgotten.

It is well known that certain birds are regarded with superstitious feelings. The schoolboy rhyme declares that those who injure the swallow, the robin, or the wren, will never thrive again. These feelings are widely spread. Wilson, the American ornithologist, says:—"In the United States it is customary to fit up boxes for the swallows to nestle in; and the

country people have a superstitious idea that if they permit the swallows to be shot, their cows will give bloody milk; and, moreover, that the barn tenanted by the swallows will never be struck by lightning." On the banks of the Mississippi, the negroes stick up long canes with a species of apartment fixed to their tops, in which the martins regularly breed. Indians also show a particular regard for this bird, and cut off all the top branches from a sapling near their villages, leaving the prongs a foot or two in length, on which they hang gourds and calabashes properly hollowed out for the convenience of the birds. The dove was a sacred bird amongst the ancients, being consecrated to Venus; and in Christian countries it is the well-known emblem of the Holy Spirit. was probably enough, in accordance with some such ancient usage or superstition, that birds were allowed to build in the Jewish temple, as the Psalmist seems to indicate—"The sparrow hath found an house, and the swallow a nest for herself, where she may lay her young, even thine altars, O Lord of hosts." One can scarcely believe that birds would have been allowed to build in the temple, unless in deference to such a superstitious The persistency of superstitious customs and ideas is exemplified by the well-known continuance of pagan usages in Christian times which, by the law which reverences a custom long after its origin and primitive use have been forgotten, has preserved even to our own day many practices which have no longer any meaning to those who engage in them; and so this instance of the building of jars into the walls of houses may simply be a relic of a superstitious usage, which ascribed immunity from calamities that otherwise might overtake the building or its human inhabitants to the presence of certain birds, and the protection thus afforded to them.

Whether this be the true explanation or not, it must ever be regretted that such an interesting example of this curious architectural feature as that presented by Wedderburn's Land should have been swept away without any skilled examination being made, and thus the opportunity perhaps lost for ever of throwing light on what cannot but be regarded as an omitted, because unsuspected, chapter in the history of the domestic architecture of Scotland.