



## The Lewis

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### Speculative connections.

The Lewis is a device that has been used by stonemasons and erectors for many centuries. It provides an anchorage in a stone, which enables lifting tackle to be attached to assist in the raising and lowering of stones that are too heavy or too awkward to be man-handled into position during transportation and erection. The first time that a speculative craft freemason learns about the Lewis is usually as an entered apprentice, during the lecture on the tracing board, when he is told that Lewis denotes strength and signifies the son of a mason. The use of the word in speculative craft freemasonry seems to have arisen as a result of the old friendship between France and Scotland, which came to be known as the "Auld Alliance".

The seeds of the friendship between France and Scotland were sown in Scotland during the reign of David I (1124-1153), who was more Normanised than his predecessors. After subduing the rebellious men of Moray in 1134, David I parcelled out their lands to his French speaking Norman adherents. The friendship between France and Scotland crystallised during the reign of William I, King of Scots (1165-1214) and known as "The Lion", who was having difficulties with Henry II of England and sought the assistance of Louis VII of France in 1166. However, the alliance was not formalised until during the struggle for Scotland's independence from England, when a joint council was established and a treaty was signed between France and Scotland in October 1295, during the reign of John Balliol (1292-1296).

One of the earliest initiatives that resulted from this friendship was the involvement of the Travelling Masons of France in the design and construction of the Abbey of Kilwinning, which was founded about 1150. The French operative freemasons introduced the device into Scotland as a lever. The Scottish operative freemasons were soon calling the device a Lewis, which at first sight appears to be an adaptation of the French word. Nevertheless, the intimate association between the operative freemasons and the clergy in those days must not be overlooked. The clergy regularly spoke in Latin, which at least the Master Masons must have understood and spoken, so that the word Lewis is more likely to have been an adaptation of the Latin word leuis which means to levitate. Whichever was the derivation, it was not long before Lewis was used in Scotland to designate the son of a freemason as well as the device to which it originally referred. It is relevant to note that Lewis was not known in England until it was introduced by the Reverend Dr James Anderson D.D. (1684-1739), a Scottish freemason, when he prepared the second edition of the Book of Constitutions for the original Grand Lodge of England in 1738, in which he referred to the eldest son of a freemason as a Lewis.

The Constitutions and Laws of the Grand Lodge of Antient Free and Accepted Masons of Scotland permit sons of Master Masons under the Grand Lodge to seek admission when they have attained the age of eighteen years instead of the twenty one years otherwise required, which now is also allowed under the United Grand Lodge of New South Wales. The Constitutions of the United Grand Lodge of England do not make any similar provision, although there is a custom, as distinct from a rule, that a freemason's eldest son may be initiated before any other candidate under consideration at the same time, but not in precedence to any candidate who has already been approved for admission.

The term Lewis is not used in the United States of America, except under the Grand Lodge of Pennsylvania, where it appears in the Constitutions drafted in 1727, only ten years after the first Grand Lodge was formed in London and 110 years before the United Grand Lodge of England was formed. No right of early admission is recognised in the United States of America, although some lodges hold ceremonies to welcome new offspring of members and some establish endowments in the names of the offspring, which are passed over to them after their initiation.

### The origin of the name

A great deal has been written about the origin of the name, but much of it is fanciful, such as the suggestion that it arose in consequence of its use by an architect in the service of Louis XIV of France (1638-1715). In fact the device and its name were in common use in France from an early date, but that was as a direct result of the Roman occupation and the similarities of language. The probable derivation of the word has already been mentioned in connection with the use of the device in Scotland during the 1150s, but some further comments are relevant. The Latin word leuis, meaning to levitate, gave rise to the Middle Latin word levis meaning light in weight. Both of these words aptly reflect the purpose of the Lewis, which is to make the lifting of a stone easy, or in the vernacular to lighten the load. The early Latin leuare, the Middle Latin levare, the Old French leveor, the Middle English levour and the modern English lever are all descendants of the Latin leuis and have the same meaning. Moreover, leuis would be spelt as Lewis in modern English.

It is of interest to note that by 1676 the Compagnonage, the brotherhood of masons who comprised the Compagnons du Tour or Travelling Masons of France, had changed their name for the lifting anchorage to louve meaning a she wolf, which is the feminine of loup meaning a wolf. It is said to be in allusion

to the vice-like grip of a she-wolf's jaws when angry. From that date onwards the Compagnonage also referred to the son of a mason as a louveteau meaning a wolf cub and to the daughter of a mason as a louveine. These expressions seem to have originated from a play on words, most probably having in mind a requirement in ancient Egypt for the candidate in the Mysteries of Isis to wear the mask of a wolf, in deference to the wolf-headed god Upuaut, which signifies "he who opens the way", which is a most appropriate symbolism for a candidate in freemasonry. The god Upuaut must not be confused with another Egyptian god of similar appearance, the jackal-headed god Anubis which signifies "the Lord of the land".

### The lifting device

In its usual form the Lewis comprises two iron or steel wedges separated by an iron or steel spacing plate which, when assembled together, form a dovetailed tenon that was fitted into a dovetailed mortice cut in a stone to receive it. The cross-section of the spacing plate usually is three times as wide as it is thick and its length usually is about four times its width. Each wedge has the same length and width as the spacing plate, but its thickness varies. About a quarter of the length of each wedge at its upper end has the same cross-section as the spacing plate, but the lower three quarters of the length is tapered only on the face that will be its outer face when the wedges are placed back to back with the spacing plate between them. The taper is such that the lower end of each wedge is one and one half times as thick as its upper end.

Matching holes are provided in the upper ends of the two wedges and the spacing plate, so that a shackle bolt can be inserted through them when the lifting device has been assembled in the dovetailed mortice cut in a stone to receive it. The shackle bolt holds the three pieces in their correct positions when the lifting tackle is attached. In ancient times the lifting tackle would have been supported from a tripod or a guyed gin

pole, but nowadays a mobile crane generally would be used for lifting. When two wedges and a spacing plate of these proportions have been assembled in this fashion, the cross-section of the device at the upper end of the tapered section is a rectangle with sides of four units and three units, whilst the cross-section at the lower end is a square with sides of four units, thus forming a dovetailed tenon.

It is obvious that, if a tapered hole of these dimensions is cut into a stone to form a dovetailed mortice, the two wedges can be inserted into the hole when placed back to back. If the wedges are moved apart after they have been inserted into the mortice the spacing plate can then be inserted between them. A suitable working tolerance is allowed in the cross-sectional dimensions of the mortice, so that the components of the device can be inserted easily. The mortice also is made slightly deeper than the tapered length of the wedges forming the tenon, so that after lifting the stone the device can be tapped down into the mortice to free the spacing piece, which can then be removed to allow the wedges to be removed. When the mortice is being cut into a stone, it is commenced as a rectangle four units by three units in cross-section at the surface and continued with these dimensions to the required depth of the mortice. The sides of the hole that are four units wide are then progressively undercut, so that its full depth the mortice is a square with sides of four units.

Although the device is simple to use, the location of the mortice to receive it is of utmost importance. It is preferable to use a single lifting point when this is practicable, because this allows for a simple arrangement of the lifting tackle which will permit the stone to be rotated and swung into position with the least difficulty. To achieve this, the mortice should be cut directly above the centre of gravity of the stone. If the stone is square or oblong in plan the location of the mortice is easy to determine, because it is at the intersection of the diagonals. If the stone is a T-shaped footing corner stone it can still be lifted

from a single point if it is not too heavy, but greater skill is required to determine the point.

When it is necessary to lift a stone such as an L-shaped corner stone, great care must be exercised and at least two lifting points must be used required, for example at the midpoints of the two legs. The stonemason must exercise considerable skill when determining the actual dimensions of the device and the direction in which the mortice must be expanded towards the bottom. If the device is too small, it will pull out when the stone is being lifted. If the mortice is expanded in the wrong direction, the stone may split when being lifted. If the stone is too soft or is badly laminated it may not be possible to use a Lewis. Great skill and care is also required when determining the number and locations of the lifting points, especially for awkwardly shaped stones and for very large stones.

### The history of the Lewis

The Lewis was used extensively by the Romans from long before the Christian era, which has been confirmed by wide ranging archaeological investigations. It is not known whether the Lewis was used by the builders who preceded the Romans, but having regard to the extraordinary building skills displayed by the ancient Egyptians and the Phoenicians in particular, the Romans probably acquired the art from them. As earlier archaeological investigations tended to concentrate on the recovery of artifacts, the evidence could easily have been overlooked. Some interesting examples of the known use of the Lewis by the Romans include the construction of the colosseum in Rome, which was completed in 80 BCE; the construction of the amphitheatre in Pompeii, which was commenced in 70 BCE; and the construction of the temple at Baalbek from about 60 CE until about 250 CE. Baalbek is of special interest, because the size and weight of many of the larger stones in the Temple of Jupiter, the first of the Roman temples that was constructed there, necessitated the use of multiple anchorages

to enable them to be lifted and placed into position. Several examples of stones that have multiple anchorages are easily found among the ruins of Baalbek.

The Romans introduced the Lewis into Britain for the construction of Hadrian's wall around 200, when it was erected to prevent the incursions from Scotland into England. An astute observer can still find mortices in many of the more massive stones in the ruins of Hadrian's wall. Later, when Oswey was king of Northumberland, the Saxons used the Lewis when they constructed the abbey at Whitby, which was founded by St Hilda in 657 to accommodate the monks and nuns. Whitby Abbey was the chief seat of learning in the north of England for several centuries. Thereafter the device was used widely in England, although it was not known as a Lewis until the name was introduced from Scotland by Dr James Anderson.

## Symbolism

Although the Lewis is a remarkably simple device, a great deal of skill and precision is required when fabricating its components and when locating and cutting the mortice in the stone. To choose the wrong size of the device; to choose the wrong location for the hole; to orient the undercutting of the hole incorrectly; or to fail to match the size of the mortice and its undercut surfaces accurately with the assembled tenon, at the very least would damage the stone, but could split it or allow it to fall. Provided that everything is done correctly, the stone can be raised with ease, rotated as required and placed in position accurately and without damage. Thus the Lewis symbolically comprehends the teachings of all the working tools of an apprentice freemason, reminding us that knowledge, grounded on accuracy, aided by labour and sustained by perseverance will, in the end, overcome all difficulties, raise ignorance from despair and promote happiness in the paths of science. Furthermore the Lewis is a most appropriate symbol of strength.



It is clear from the derivation of the name that Lewis, when used with reference to the son of a freemason, originated with the Travelling Masons of France, many of whom who were engaged to construct the Abbey of Kilwinning in Scotland during the 1150s. This use of the expression was transmitted from operative freemasonry in Scotland to speculative craft freemasonry in England during the seventeenth or eighteenth century. The Lewis is mentioned in the catechisms of speculative craft freemasons in England from the eighteenth century, when it was said to denote strength and to be depicted in a freemason's lodge as a cramp of metal dovetailed into a stone. The catechisms define the duty of a Lewis as being:

"To bear the heavy burden of his aged parents, so as to render the close of their days happy and comfortable."

The catechisms also define his privilege for so doing as being:

"To be made a mason before any other person, however dignified by birth, rank or riches, unless he through complaisance waives this privilege."

From these old catechisms are derived the references in modern rituals. In modern speculative craft lodges, as well as being depicted on the tracing board, a Lewis is often displayed inserted in a perfect ashlar suspended from a tripod. The perfect ashlar is customarily raised from its base when the lodge is opened and set back on its base when the lodge has closed, respectively signifying that the lodge has commenced labour or that it has ceased labour and is going to refreshment.

An anachronism

In Scottish operative lodges in olden times, if an apprentice serving his indentureship failed to complete his practical training and could not pass his tests, then he could not be

recorded in the books as an Entered Apprentice. Accordingly he was released from his bond and thereafter was described in the old Scots tongue as a lowsance, which sometimes was spelled incorrectly as lousance. The Scots word signified freedom from bondage that is liberty, being derived from the verb lowse, which has a pronunciation midway between the words loose and louse in English. Lowse means to loosen, to unyoke or to redeem.

In common usage it was customary to use the verb lowse instead of the longer noun lowsance. A lowsance was not precluded from all stonework but, like the cowan or dry-stone diker in Scotland, he was not allowed to be engaged on any tasks requiring special skills, nor was he allowed to participate in any ceremonial work restricted to those having the Mason Word. A curious clerical error that purports to describe a Lewis appears in the Harris MS No 1 that dates from the second half of the seventeenth century in which the rehearsal of the charges to a Free Mason says:

"You shall not make any Mold, Square or Rule for any that is but a Lewis; a Lewis is such a one as hath served an Apprenticeship to a Mason but is not admitted afterwards according to this manner and Custom of making Masons."

Clearly the Lewis that is recorded in this manuscript was intended to be read as a Lowse, but had been confused by the draftsman who probably was not aware that in Scotland the verb lowse was commonly used in place of the noun lowsance.

An Anglo-Saxon Lewis.

Although Lewis was not used in England in a masonic context until 1738, the word evolved in the Anglo-Saxon language with a very similar usage many centuries earlier. Britain is renowned for its interesting place names, the origins and evolution of which illustrate the derivation, diversity and richness of the

English language. Countless articles have been written on the subject, including an extensive series called Notes and Queries which includes an article on Lewisham, a suburb of London south of the River Thames. The name literally means the home of Lewis, which is derived from the Old English ham meaning a home, whence hamlet also is derived. It is recorded in the Charter of Ethelbert dated 862, that Lewisham was then known as Liofshema mearc which means the place of Liofshema, which is derived from the Old English mearc meaning a boundary or a limit. This Ethelbert was not the sixth century King of Kent who became the first Christian ruler of Anglo-Saxon England, but the son of King Ethelwulf who became King Ethelbert I of England when his father died in 858. As Liof or leof means dear and sunu, suma or shema means son, the name Liofshema literally means dear son. By the seventeenth century the place was called Lews'am, whence the present name evolved through changes of etymology. Thus Lewis evolved through Old English meaning dear son, at the same time coming through Latin and French and denoting son of a mason.