

THE CLOVE-HITCH KNOT. For fastening a cord to any cylindrical object, one of the most useful knots is the clove hitch, which although exceedingly simple and most easily made, is one of the most puzzling knots to the uninitiated. There are several modes of forming it, the most simple being perhaps as follows:—make two loops, precisely similar in every respect as a and b, Fig. 7, then bring b in front of a, so as to make both loops correspond, and pass them over the object to be tied, tightening the ends; if this is properly done, the knot will not slip, although surrounding a tolerably smooth cylindrical object, as a pillar, pole, &c.

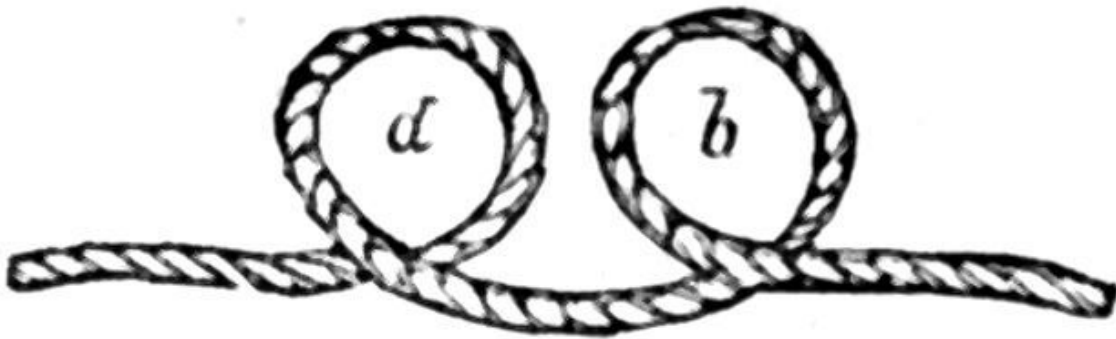


Fig. 7.

This knot is employed by surgeons in reducing dislocations of the last joint of the thumb, and by sailors in great part of the standing rigging. The loop which is formed when a cable is passed around a post or tree to secure a vessel near shore, is fastened by what sailors term two half hitches, which is simply a clove hitch made by the end of the rope which is passed around the post or tree, and then made to describe the clove hitch around that part of itself which is tightly strained.

THE TYING UP OF PARCELS IN PAPER is an operation which is seldom neatly performed by persons whose occupations have not given them great facilities for constant practice. Whether the paper be wrapped round the objects, as is the case usually when it is much larger than sufficient to enclose them, or merely folded over itself, as is done by druggists, who cut the paper to the required size, it is important that the breadth of the paper should be no longer than sufficient to enable it to be folded over the ends of the object enclosed, without passing over the opposite side. It is impossible to make a neat or close parcel with paper which is too broad; excess in length can be readily disposed of by wrapping it round; the excess of breadth should be cut away. With regard to turning in the ends, the mode adopted by grocers is the best. The most common cause of failure

in parcels is their being badly corded. We will therefore (however unnecessary the description of so simple a performance may appear to those already acquainted with it), describe the most readily acquired mode of cording.

Let a single knot be made in the end of the cord, which is then passed round the box or parcel. This knotted end is now tied by a single hitch round the middle of the cord (Fig. 8) and the whole pulled tight. The cord itself is then carried at right angles round the end of the parcel, and where it crosses the transverse cord on the bottom of the box (Fig. 9), it should (if the parcel is heavy and requires to be firmly secured) be passed over the cross cord, then back underneath it, and pulled tightly, then over itself; lastly, under the cross cord, and on around the other end of the box.

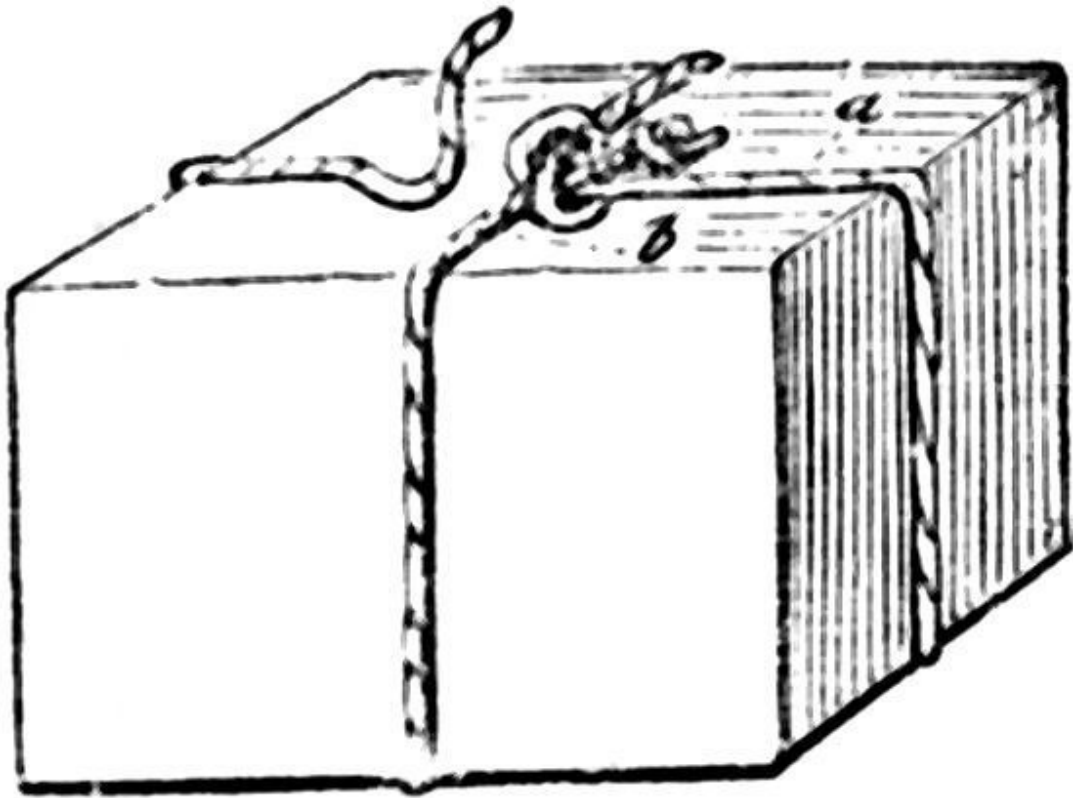


Fig. 8.

When it reaches the top it must be secured by passing it under that part of the cord which runs lengthways (a, Fig. 8) pulling it very tight, and fastening it by two half hitches round itself. The great cause of parcels becoming loose is the fact of the cord

being often fastened to one of the transverse parts, (as b, Fig. 8) instead of the piece running lengthways, and in this case it invariably becomes loose.

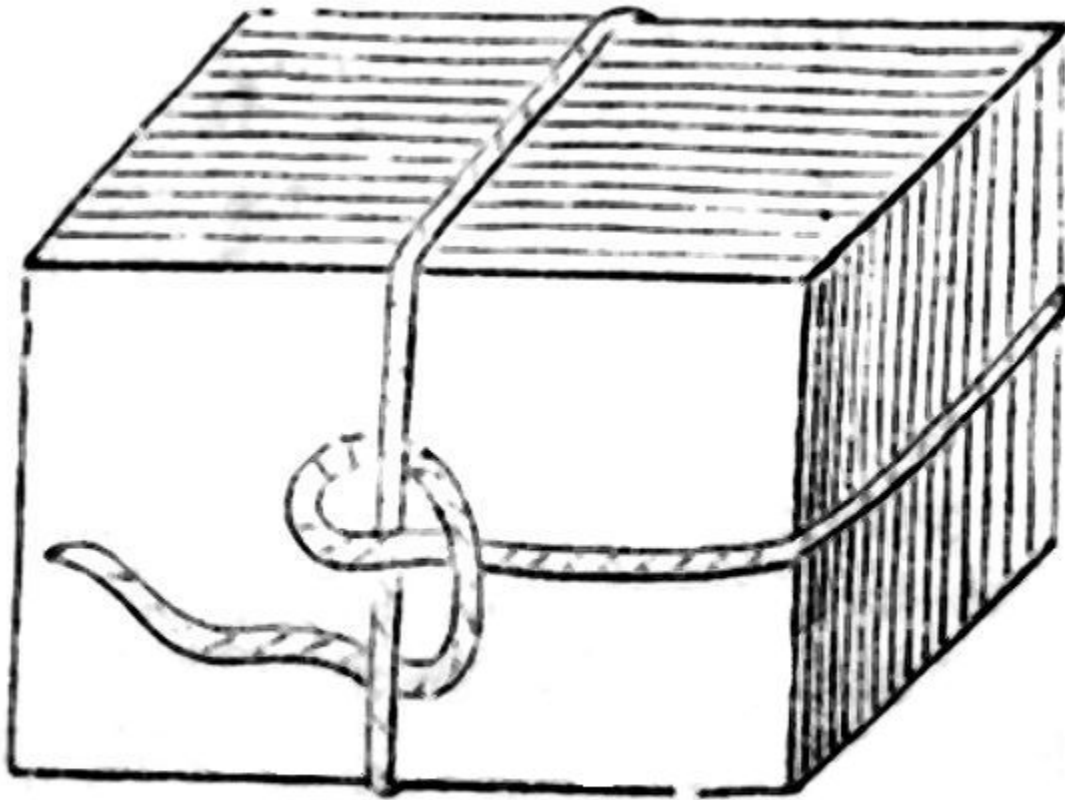


Fig. 9.

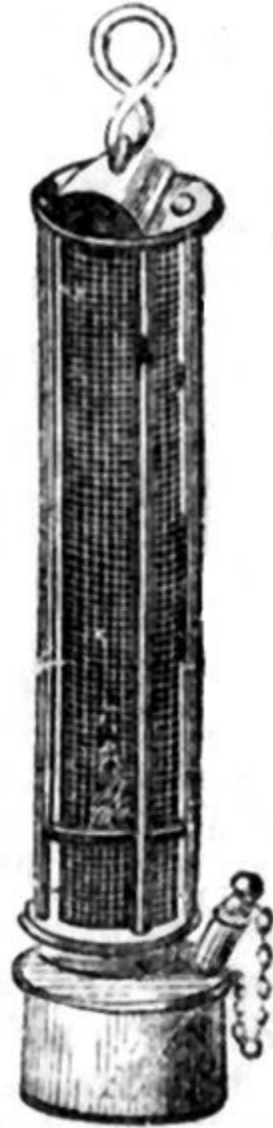
The description may perhaps be rendered clearer by the aid of the figures, which exhibit the top and bottom of a box corded as described. The cords, however, are shown in a loose state to allow their arrangements to be perceived more easily.

**GERMINATION OF ACORNS.** Take a hyacinth glass, or a broad-mouthed bottle, and fill it about-one-third with water. Cut a piece of stiff cardboard, or tin, to fit closely the opening of the glass or bottle, and from the centre thereof suspend an acorn by a piece of thread just long enough to let the acorn descend nearly to the water. It will be advantageous to drop the acorn until it touches the water, and then to draw it up very gently as far as may be done without overcoming the attraction which holds the water to the base of the acorn.



Keep it now on the mantel-piece over the fire, and in a few weeks the germ will burst the shell, and a little root will appear and descend to the water, where it will become more fully developed. Steep the acorn in water a day before suspending it. Soon afterwards, another germ will be seen to strike upwards until it reaches the covering of the glass, where a contrivance may easily be made for its escape, still keeping the acorn in the same relative position. And thus a sapling oak may be produced—a curiosity for the parlour.

THE SAFETY LAMP was invented by Sir Humphrey Davy, and was constructed so as to burn without any danger in an explosive atmosphere. It is merely a common oil-lamp, the frame of which is enclosed in a cylindrical cage of wire gauze, sometimes made double at the upper part where the hottest portion of the gas collects, and containing about 400 apertures to the square inch. The wick is trimmed by means of a bent wire, passing tightly through the body of the lamp, so that when the lamp has been supplied with oil, the wick may be kept burning for any length of time without unscrewing the cage.



When this lamp is immersed in an explosive mixture of marsh-gas or coal-gas and common air, the gauze cylinder becomes filled with a blue flame, arising from the combustion of the gas within; but the flame does not communicate to the outside, even though the gauze may be heated to less redness.

ABLUTION, or a *Washing Away*—a religious ceremony, which has been practised more or less by the followers of all creeds. The Mohammedans and Brahmins are very strict in their ablutions; and they occupy an important rank amongst other religions of India. The Ganges is considered by the natives as possessing a power of purification so great even, that if a votary cannot reach that river, and who calls upon it while bathing in another to cleanse him, he will be freed from all his sins.