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**GLOSSARY OF TERMS RELATING TO
BUILDERS HARDWARE**

PART II LATCHES

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**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

Indian Standard

GLOSSARY OF TERMS RELATING TO BUILDERS HARDWARE

PART II LATCHES

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GLOSSARY OF TERMS RELATING TO BUILDERS HARDWARE

PART II LATCHES

0. FOREWORD

0.1 This Indian Standard (Part II) was adopted by the Indian Standards Institution on 22 December 1976, after the draft finalized by the Terminology, Notations and Drawings Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 A number of Indian Standards have already been published on various items of builder's hardware and many more are in the progress of formulation. With a view to bringing about uniformity in the expression of various terms, pertaining to latches, used in the builder's hardware industry this standard is being issued.

0.3 In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practice in the field in this country.

1. SCOPE

1.1 This standard (Part II) covers definitions of terms relating to latches.

1.2 The definitions of any device which incorporates a key-operated mechanism are not covered in this standard.

2. GENERAL TERMS

2.1 Dimensioning of Latches — The method of measuring and describing the length, height, thickness and size of latches.

2.2 Face of Door — The plane surface of a door on either side as distinct from the edges.

2.3 Handed Latches

- a) Latch for which the hand should be stated when ordering and which cannot be readily converted from one hand to the other.
- b) Latches which are supplied to the purchaser in equal numbers of each hand.

2.4 Handing of Latches — The rules for determining and describing the relationship of each one of the following with the others:

- a) The directions of opening of hinged or sliding doors,
- b) The inside and outside of the door, and
- c) The latch which is intended to be affixed to the door.

2.5 Latch — A device, openable from both sides and generally self-engaging, for holding closed a door, gate or the like. It consists of movable part falling by gravity or sliding or moving by means of a spring into a retaining member of some sort, the moving part of the device being operated by a handle and not by a removable key.

2.6 Left-Hand Latch

- a) A latch intended to be fitted to that edge of an inward opening hinged door which is on the left hand of a person viewing the door from the outside.
- b) A latch intended to be fitted to that edge of a cupboard, wardrobe or locker hinged door (that is outward opening) which is on the left hand of a person viewing the door from the outside.
- c) A latch intended to be fitted to that edge of a sliding door which is on the left hand of a person viewing the door from the outside in such a position that the door moves to the left in closing.

2.7 Left-Hand Reverse Bolt Latch — A reverse bolt latch intended to be fitted to that edge of an outward opening door which is on the left hand of a person viewing the door from the outside.

2.8 Outside (of Door) — Any of the following sides of a door:

- a) The external side of a door in an external wall;
- b) The corridor side of a room door;
- c) The side of a communicating door on which the hinge knuckles are not seen when the door is closed;
- d) The side of either of two doors facing the space between them; or
- e) The room side of a closet, cupboard or wardrobe door.

NOTE — The outside of a sliding door, a door across a corridor or leading into or out of a vestibule or lobby cannot always be determined as it depends on individual circumstances.

2.9 Reverse Bolt Latch — Except as qualified in the note below, a latch in which the spring bolt has the bevel set to suit an outward opening door.

NOTE— The term 'reverse bolt latch' is used for latches intended to be fitted to doors which always open outwards, for example cupboard, wardrobe and locker doors.

2.10 Right-Hand Latch

- a) A latch intended to be fitted to that edge of an inward opening door which is on the right hand of a person viewing the door from the outside.
- b) A latch intended to be fitted to that edge of a cupboard, wardrobe or locker hinged door (that is outward opening) which is on the right hand of a person viewing the door from the outside.
- c) A latch intended to be fitted to that edge of a sliding door which is on the right hand of a person viewing the door from the outside in such a position that the door moves to the right in closing.

2.11 Right-Hand Reverse Bolt Latch — A reverse bolt latch intended to be fitted to that edge of an outward opening door which is on the right hand of a person viewing the door from the outside.

3. TERMS RELATING TO LATCH PARTS

3.1 Bevelled Forend (Splayed Forend) — A forend shaped to fit the closing edge of a door which is not at right angles to the face of the door.

3.2 Bolt — The part of a rim or mortice latch which provides the fastening by protruding from the latch case to engage in staple or striking plate.

3.3 Bolt Spring — A spring which shoots out the spring bolt of a latch.

3.4 Bush — A sleeve or ferrule replacing the metal round the follower to give additional strength or bearing.

3.5 Case -- That part of a latch, usually box-like in form, into which the bolt action is assembled.

3.6 Catch

- a) A device to hold the spring bolt of a latch in the 'in' or 'out' position or both.
- b) A hook or catch plate fixed to a gate post into which the bar of a gate latch or thumb latch falls to hold the gate closed.

3.7 Double Forend — A combination of an inner forend and an outer forend.

3.8 Flush Slide — A sliding device, having no projection and with a recess for the finger or thumb, which operates a catch, slide bolt or the like.

3.9 Follower — The part of a latch action which, when turned by the spindle withdraws the spring bolt.

3.10 Follower Spring — Any spring, in an easy action, acting upon the follower but not on the bolt.

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- 3.11 Forend** — The part of a mortice latch, or that part of the case of a rim latch, through which the bolt protrudes.
- 3.12 Inner Forend** — That forend which is attached to the case of a mortice latch when a double forend is used.
- 3.13 Jumbo Bolt** — A slide bolt in a rim latch.
- 3.14 Keep** — A component of a gate latch or thumb latch through which the latch bar passes, so shaped as to contain the latch bar and limit its vertical movement.
- 3.15 Latch Bar** — The part of a thumb latch or gate latch which is pivoted so as to lift from the horizontal position and disengage from the catch when actuated by the thumb bit or other means.
- 3.16 Latch Bolt** — That bolt of a rim or mortice latch which is held in the shot position by a spring or by a weight, which is withdrawn by turning the handle or is pushed in by contact with the striking plate or staple.
- 3.17 Lip (of Striking Plate)** — A projection from the side of the striking plate, bent when fixed, which projects the frame and facilitates the depression of the head of the latch bolt.
- 3.18 Locking Turn** — A small handle, lever or knob which is turned manually to operate a catch.
- 3.19 Outer Forend (Face Plate)** — That forend, often having a decorative purpose, which is fixed to the inner forend of a mortice latch to form a double forend.
- 3.20 Reversible Bolt** — A bevelled spring bolt which is designed so that it may be turned over in the case to make the latch suitable for use in either direction of door opening.
- 3.21 Roller Bolt** — A latch bolt having a roller instead of a bevel.
- 3.22 Rounded Forend** — A forend shaped to follow the rounded edge of a swing door.
- 3.23 Round-Ended Forend** — A flat forend, of a mortice latch, with semi-circular ends to facilitate machine morticing.
- 3.24 Slide Bolt** — A small supplementary bolt of a latch, which is generally operated by finger or thumb only from the inside of the door.
- 3.25 Spring Bolt** — A spring operated latch bolt.
- 3.26 Staple** — A box-like fitting fixed on a door jamb into which the bolt of a rim latch shoots.

3.27 Striking Plate — A plate, fixed to a door jamb or frame, into which the bolt or a rim latch or mortice latch engages.

3.28 Thumb Bit (Thumb Lift) — A component of certain types of door furniture and latches usually associated with a vertical pull handle. The thumb bit is a lever pivoted on a horizontal axis at, or near the surface of the door and immediately above the pull handle. The end nearest the pull handle is spoon shaped for operation by the thumb. The other end projects into or through the door to operate a latch bar or latch bolt.

4. TERMS RELATING TO LATCH BOLT ACTIONS FOR RIM AND MORTICE LATCHES

4.1 Action of Latch Bolt — The means whereby movement of the handle:

- a) Always results in movement of the latch bolt but movement of the bolt by slamming does not result in movement of the handle; and
- b) Stores up energy by compressing one or more springs or by raising a weight, the release of which returns the latch bolt and handle to their original positions.

4.2 Anti-thrust Action — A special action used in night latches, whereby the latch bolt when engaged in the staple or striking plate, is prevented from being forced back by end pressure applied to the bolt head. Contact with the striking plate or staple depress an auxiliary plunger which releases a pawl behind the bolt head thereby securing the bolt. Turning the handle or key disengages the pawl before withdrawing the bolt.

4.3 Crank Action — A two-way action for horizontal locks or latches employing a spindle pivoted member (the crank) between follower and bolt. The follower when turned in either direction, acts upon the crank, swinging it always in the same direction. The movement of the crank withdraws the bolt. Crank action may be either plain action or easy action.

4.4 Easy Action — Any action so sprung that, for easy closing of the door, only light pressure is applied to the spring bolt and, on turning the handle to open the door, additional pressure is applied to the follower to overcome friction or the weight of any additional handles. Easy actions usually employ two or more separate springs.

4.5 Frog Action — A two-way action for upright locks, latches, catches and night latches allowing the bolt head and follower to lie on the same horizontal centre line. The end of the bolt latch is U-shaped with the follower lying between the legs. Turning the follower in either direction engages one leg or the other and withdraws the bolt against the pressure of the spring.

4.6 Geared Motion Action — An action in which the rotation of the follower imparts a linear motion to the bolt by means of a rack and pinion.

4.7 Lift Up Action — An action in which vertical movement of a component part of the latch withdraws the latch bolt.

4.8 One-Way Action — Any action permitting the follower to be turned from its original position in one direction only. One-way actions are usually confined to upright locks designed for use with lever handles.

4.9 Palace Motion Action — An improved crank action intended to give a uniform handle pressure for clockwise or anticlockwise turning and a high standard of performance. The follower when turned in one direction, withdraws the bolt but when turned in the other direction acts upon the crank and the movement of the crank withdraws the bolt.

4.10 Plain Action — Any action in which a single spring serves not only to operate the spring bolt but also to return the follower to its original position.

4.11 Runner Action — A two-way action for locks or latches employing a single sliding member (the runner) between follower and bolt. The follower, when turned in either direction, acts upon the runner, sliding it always in the same direction against the pressure of the bolt spring. The movement of the runner withdraws the bolt. A runner action may be either plain action or easy action.

4.12 Scotch Spring Action — A two-way action, having a flat steel spring tapering in thickness (the scotch spring) of which one end is riveted to the case and the other bears on a pivoted arm close to the pivot. The action of the spring is transmitted to the spring bolt through the pivoted arm which is held in contact with the follower by the spring. When the follower is rotated in either direction the arm swings and withdraws the bolt. The disposition of the components make scotch spring action particularly suitable for use in two-bolt locks, but such actions are seldom employed for latches.

4.13 Two-Way Action — Any action permitting the follower to be turned from its original position in either direction. Two-way actions are intended primarily for use with knobs and to enable a latch to be used as a left-handed latch or a right-handed latch without alteration.

4.14 Weighted Action — Any action in which the energy to return the latch bolt and handle to their original positions is provided by a falling weight.

5. TERMS RELATING TO TYPES OF LATCHES

5.1 Barrack Latch — A robust type of Suffolk latch.

5.2 Canadian Latch — A thumb latch of which the pull handle is cranked and is removable from the plate for reversing the hand. The thumb bit is retained behind the pull handle and plate and is not pivoted on a separate

rivet. The keep is fixed to the edge and not the face of the door and the catch in a corresponding position on the frame.

5.3 Colonial Latch — A particular arrangement of an automatic gate latch.

5.4 Garden City Latch — A thumb latch, the pull handle of which is fixed at its ends to the door and having in addition the means to hold the latch bar in the closed position.

5.5 Gate Latch

- a) Any latch designed for holding a gate closed.
- b) A latch having a spring bolt, follower and associated latch action and designed for fitting to a metal gate.

5.5.1 Automatic Gate Latch — A device fixed to a gate post, having a pivoted thumb piece, which rides over a bar or arm on the gate, thus keeping the gate in the closed position. On releasing the thumb piece the gate can be opened.

5.5.2 Field Gate Latch

- a) Any one of a wide variety of gate latches of a suitable size and strength for large gates.
- b) A latch consisting of a rod fixed vertically to the edge of the closing stile of a gate and retained by a catch fixed to the gate post.

5.5.3 Mortice Gate Latch — A gate latch consisting of components similar in function to the surface gate latch but so arranged that the latch bar passes through a slot in the closing stile of the gate. The catch is in the form of a notched plate.

5.5.4 Surface Gate Latch — One of a variety of latches fixed to the surface of a gate consisting essentially of:

- a) A horizontal bar — the latch bar pivoted to the closing stile of the gate and frequently provided with a handle to lift the latch bar.
- b) A member — the keep through which the latch bar passes and so shaped as to contain the latch bar and limit its vertical movement.
- c) A hook — the catch fixed to the gate post into which the latch bar falls to hold the gate closed.

5.6 Gothic Latch

- a) A heavy, ornamented, Suffolk latch; and
- b) An ornamented surface gate latch usually with a ring handle.

5.7 Mortice Latch — Any catch for fixing a mortice cut in the closing edge of the door.

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5.7.1 Tubular Mortice Latch — A mortice latch having a case so shaped in cross section that it will fit in a round hole drilled in the edge of the door.

5.8 Narrow Case Latch

- a) Any mortice latch for a door having narrow stiles. The case of the latch is usually 50 mm or less in length.
- b) A rim latch intended to be fixed to a narrow rail of a panelled door. The case is usually less than 75 mm in height.

5.9 Norfolk Latch — A thumb latch having a vertical pull handle fixed to a plate and the pivot point of the thumb bit lying behind the plate.

5.10 Panic Latch — A reverse bolt rim latch or a mortice latch for outwardly opening emergency exit doors. The door is secured by the spring bolt of the latch which is readily released by light pressure on a horizontal bar, the cross bar, extending the full width of the inside face of the door.

5.11 Rim Latch — A latch for fixing to the face of the door, having a bevelled spring bolt and usually incorporating a jumbo bolt.

5.12 Shop Door Latch — Any latch specially made for the narrow stile of a shop door, operated by lever handle or thumb bit.

5.13 Sliding Door Latch — A mortice latch having a clutch bolt.

5.14 Suffolk Latch — A thumb latch having a vertical pull handle fixed to a plate and the pivot of the thumb bit lying in front of the plate.

5.15 Thumb Latch — A door latch consisting, on one side of the door, of a vertical pull handle surmounted by a thumb bit and on the other side by a latch bar, a catch and a keep.

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