



## Standard Terminology Relating to Chain Link Fencing<sup>1</sup>

This standard is issued under the fixed designation F552; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

*This standard has been approved for use by agencies of the U.S. Department of Defense.*

**aluminized**—*in chain link fabric*, describes fabric woven from steel wire that is coated with aluminum before weaving (see Specification A491<sup>2</sup>).

**barb**—as related to barbed wire— a short length of wire, with exposed ends cut on a bias to produce sharp points. See Specifications F1665 and A121.

**barbed tape**—strip of metal, machined to produce clusters of sharp points (see Terminology F1379<sup>2</sup> for further information).

**barbed wire**—a fabricated wire product consisting of two line wires twisted to form a two-wire strand, into which 2–point or 4–point barbs are tightly wrapped and locked into place at specific intervals. (*Syn.* barbwire). See Specifications F1665 and A121.

**barbed wire arm**—a post fitting used to hold barbed wire in place. May be vertical or angled to hold three or more strands of barbed wire, or “V” shaped to hold six or more strands of barbed wire.

**barbed wire arm base**—a casting of aluminum, malleable iron, or steel, used in combination with one or two barbed wire extension arms held in place by a bolt and nut.

**barbed wire extension arm**—pressed aluminum or pressed galvanized steel used in combination with barbed wire arm base to hold three strands of barbed wire either vertically or angled in or out from the fence line. Also used in pairs in a “V” configuration to hold 6 strands of barbed wire.

**bottom protective plate**—a safety device installed on a Type II, Class 1, cantilever slide gate with external rollers to isolate the lower roller mechanism to reduce the possibility

of contact with the roller mechanism by a person. See Specification F1184<sup>2</sup>.

**bottom rail**—horizontal member of the framework running continuously along the bottom edge of the fence.

**boulevard clamp**—a two piece clamp with carriage bolts and nuts designed for 180° horizontal rail connections to a line post (also called *line rail clamp*).

**brace band**—a symmetrically formed strip of metal shaped to fit around a post and used with a carriage bolt and nut to attach the rail end or brace rail end truss rod tightener to the post (see Fig. 1). Also used for attaching barbed wire, tension wire, and other items to a terminal post.

**brace rail**—a compression member at terminal posts or corner posts.

**brace rail end**—a cup-shaped fitting similar to a rail end with provision for attaching a truss rod.

**cantilever slide gate**—any horizontal slide gate spanning an opening lacking a top or bottom support within that opening (see Specification F1184<sup>2</sup>).

**center stop**—a device to receive and hold the drop bar on a double gate.

**commercially available**—a manufactured item or product that once produced is held in inventory COS status (commercial off the shelf), ready for delivery once ordered by a consumer or other end user.

**corner barbed wire arm**—a combination post cap and fitting used to hold barbed wire in place on a corner post. May be angled in or out from the fence line to hold three or more strands of barbed wire, or “V” shaped to hold six or more strands of barbed wire.

**corner post**—a terminal post, at which the direction of the line of fence changes in two or more directions (see Fig. 2).

**corner rail clamp**—a two-piece clamp with carriage bolts and nuts designed for horizontal rail connections to a 90° corner post.

**diamond**—the opening formed by the woven wires in chain link fence fabric.

<sup>1</sup> This terminology is under the jurisdiction of ASTM Committee F14 on Fences and is the direct responsibility of Subcommittee F14.40 on Chain Link Fence and Wire Accessories.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.



FIG. 1 Brace Band

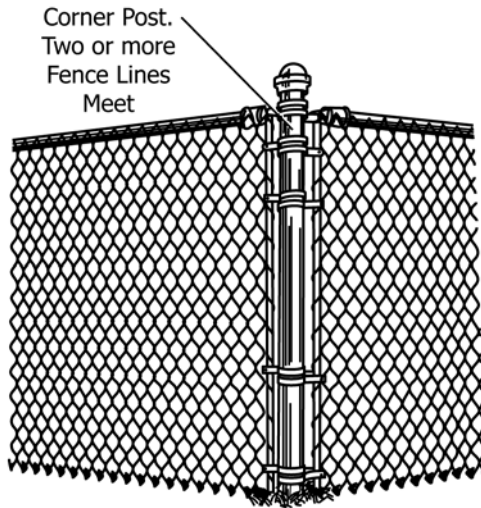


FIG. 2 Corner Post

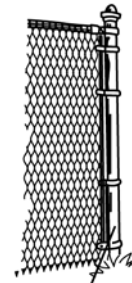


FIG. 4 End Post

**end rail clamp**—a two-piece clamp with carriage bolt and nut designed for horizontal rail connections to an end post.

**fabric (chain link fence)**—a fencing material made from wire helically wound and interwoven in such a manner as to provide a continuous mesh without knots or ties except in the form of knuckling or of twisting the ends of the wires to form the selvages of the fabric (see Fig. 5).

**flange**—in chain link fencing, a plate or casting for securing a post to a floor or a horizontal rail to a wall.

**frame hinge**—a fitting that attaches to the gate frame and functions with the post hinge.

**framework**—the basic structure supporting installed fabric, namely the posts, rails, and tension wire.

**galvanized**—pertaining to zinc-coated articles.

**galvanized after weaving**— *in chain link fabric*, describes steel fabric that is hot-dip coated with zinc after weaving (see Specification A392<sup>2</sup>).

**galvanized before weaving**— *in chain link fabric*, describes fabric that is woven from steel wire galvanized before weaving.

**gate**—a moveable barrier placed in a fence opening (gate opening) which allows the opening to be closed. See Specifications F654, F900, and F1184.

**gate clip**—a galvanized pressed steel or pressed aluminum fitting designed to secure chain link fabric to the vertical sides of a gate frame.

**diamond count**—the number of diamond openings from one edge of fabric to the other. The count of a given fabric shall begin at the first completed diamond at one edge and continue to the unfinished (half) or full opening at the other edge (see Fig. 3).

**double drive gate**—a gate comprised of two gate leaves which is used to close a gate opening through which vehicles are intended to pass. While often referring to a swing gate (that is, double swing gate), the gate may be any double leaf gate intended for vehicular (that is, slide gate or others). See specifications F654, F900, and F1184<sup>2</sup>.

**drop bar**—component of a double gate latch assembly (sometimes called *drop rod*) (see Specification F900<sup>2</sup>).

**end post**—the terminal post at the end of a line of fence (see Fig. 4).



FIG. 3 Diamond Count

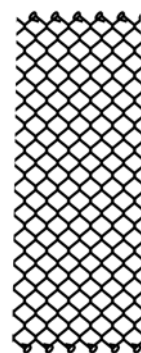


FIG. 5 Chain Link Fence Fabric

**gate frame**—the structural member(s) of the gate.

**gate holdback or keeper**—a device to receive and hold the gate leaf in an open position.

**gate latch**—a fitting to hold the gate in place when closed.

**gate leaf**—a component of a swing gate which consists of a gate frame covered with chain link fabric and/or other material. See Specifications F654 and F900.

**gate opening**—the clear distance between the gate posts.

**gate post**—the post to which a gate is attached via hinges. It may also be used as a terminal post.

**gate transom**—a panel of chain link fabric over the top of a gate opening, framed with top and bottom rail. Typically used in tennis court fence (see Practice F969<sup>2</sup>).

**height**—the distance before stretching from one outer edge of a knuckle or twist to the outer edge of the knuckle or twist on the opposite edge of fabric.

**hinge pin**—an upright pivot used to connect the gate frame hinge to the post hinge, allowing a swing gate to open or close. See frame hinge and post hinge.

**hog ring**—a preformed open wire clip designed to close up into a ring to secure chain link fabric to horizontal tension wire (see Specification F626<sup>2</sup>).

**intermediate rail**—horizontal member of the framework running continuously at any point between the top and bottom of the fence (sometimes called *middle rail*).

**knuckle**—the selvage obtained by interlocking adjacent pairs of wire ends and bending the wire back into a loop (see Fig. 6).

**line post**—the intermediate post in a fence line supporting the top rail or tension wire and barb arm where applicable (see Fig. 7).

**line post cap**—a cap or top with a loop used to position the top rail or tension wire on top of the line posts (see Fig. 8).

**line rail clamp**—See **boulevard clamp**.

**loop cap**—See **line post cap**.

**marcelling**—a process whereby either a uniform helix or a series of waves put in a wire to facilitate tensioning the wire when installed to support the top or bottom or both, of the chain link fence fabric (that is, marcelled tension wire). See **tension wire** and Specification A824.

**mesh**—*in chain link fabric*, the clear distance between parallel wires forming a diamond.



FIG. 6 Knuckle

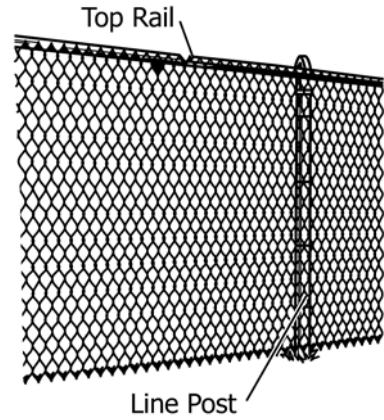


FIG. 7 Line Post and Top Rail



FIG. 8 Line Post Cap

**middle rail**—See **intermediate rail**.

**offset hinge**—a swing gate hinge that permits the gate to swing 180° from the closed to the open position (see Specification F900<sup>2</sup>).

**overhead slide gate**—any horizontal slide gate supported only from above (see Specification F1184<sup>2</sup>).

**pedestrian gate**—a gate, usually comprised of a single leaf, which is used to close a gate opening through which pedestrians are intended to pass. While often referring to a swing gate, the gate may be of any single leaf gate intended for pedestrian use (that is, slide gate or others). See Specifications F654, F900, and F1184<sup>2</sup>.

**panel clamp**—a two-piece clamp with carriage bolt and nut, designed to secure prefabricated panels on free standing enclosures.

**picket**—a helically formed steel wire interwoven in the manufacture of chain link fabric or used for field splicing rolls of fabric into continuous chain link mesh from terminal post to terminal post.

**polymer coating**—a term used to describe color coatings such as PVC (poly(vinyl chloride)), polyester, and clear coatings such as polyurethane and acrylic urethane (see Specifications F668, F934, and F1234<sup>2</sup>).

**post cap**—a fitting atop a post usually to exclude water from tubular posts.

**post hinge**—a fitting that attaches to the gate post, the pintle of which fits the frame hinge permitting the gate to swing (see Fig. 9).

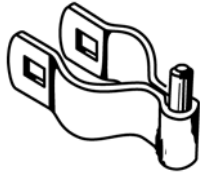


FIG. 9 Post Hinge



FIG. 11 Twist

**pull post**—a terminal post used in a line of fence to brace a long stretch or to effect a change in elevation along the fence line.

**PVC**—poly(vinyl chloride) coating on fence materials.

**rail end**—a cup-shaped fitting used with a brace band to connect the top rail or brace to a post (see Fig. 10).

**raid end band**—See **brace band**.

**scroll**—a decorative ornament on top of a gate.

**selvage**—the edge finish on woven chain link fabric joining pairs of pickets. The selvage may be knuckled or twisted (see Fig. 6 and Fig. 11).

**sleeve, post**—a specified length of tube or pipe set into a concrete wall, grade beam, or slab, into which fence posts are later placed.

**sleeve, top rail**—a fitting used to join two pieces of top rail when a swedged top rail is not used (see Fig. 12).

**stretching**—the process of putting tension on the fabric to make it hang uniformly along the line of fence between terminal posts.

**swedge**—the formed end of a piece of top rail so that it will fit into and join another piece of top rail (see Fig. 13).

**swing gate**—a gate leaf attached to one gate post using hinges (frame and post hinges) which allow the gate leaf to open or close by pivoting on the hinges and to the opposite gate post or another gate leaf with a latch or other device. Swing gates may be single swing (one leaf) or double swing (two leaves). See Specifications F654 and F900.

**tension band**—an offset strip of metal shaped to fit around the terminal post and used with a carriage bolt and nut to attach the tension bar to the post (see Fig. 14).

**tension bar**—the bar used with tension bands or other post connectors to secure the fabric to a terminal post (see Fig. 15).

**tension wire**—a wire, with or without a marcelled pattern (see **marcelling**), typically used along the top of a chain link fence in place of a top rail and along the bottom of a chain

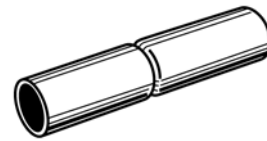


FIG. 12 Toprail Sleeve

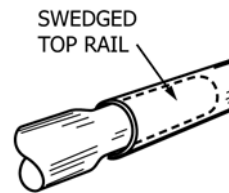


FIG. 13 Swedge

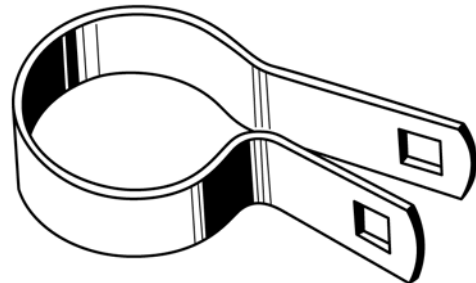


FIG. 14 Tension Band



FIG. 15 Tension Bar

link fence for additional security. See Specification A824<sup>2</sup> for *marcelled tension wire*. (Syn. **coil spring wire**.)

**terminal post**—the basic load-bearing component for a line of fence, to or from which the fabric is stretched; it may be an end, gate, corner or pull post.

**tie**—wire, clip, or band used to attach the fabric to the top rail and line posts (see Fig. 16 and Specification F626<sup>2</sup>).

**top rail**—horizontal member of the framework running from terminal post to terminal post on top of the line posts (see Fig. 7).



FIG. 10 Rail End



FIG. 16 Tie Wire

**top roller guard**—a safety device installed on a Type II, Class 1, cantilever slide gate with external rollers to isolate the upper roller mechanism to reduce the possibility of contact with the roller mechanism by a person. See Specification F1184<sup>2</sup>.

**truss rod**—a tensioning rod, used for bracing in gates and at terminal posts. May be threaded at one or both ends or contain a tightener or turnbuckle for adjusting tension.

**truss rod tightener**—a tightening device used with an adjusting nut and a truss rod (sometimes incorrectly called *turnbuckle*).

**turnbuckle**—a tightening device with left hand and right hand threads at opposite ends, used with a truss rod.

**twist**—the type of selvage obtained by twisting adjacent pairs of wire ends together in a close helix of 1½ machine turns, which is equivalent to three full twists (see Fig. 11).

**vehicular gate**—a structure used to close a gate opening through which vehicles are intended to pass. See Specifications F654, F900, and F1184.

**Zn-5Al-MM**—an abbreviation describing an alloy of zinc, 5 % aluminum, and mischmetal, employed as a metallic coating over steel wire or steel sheet used in the manufacture of chain link fabric, fence framework materials, and other products (see Specifications F1234 and F1345<sup>2</sup>).

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