The Stapler

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1 Parts

1.1 Base

The base of the stapler is covered with a textured rubber material to ensure that it remains in place on a table or desk surface while in use. This rubber is easily removable from the stapler base so that the user can clean the top of the rubber mat and the underside of the stapler base if either or both happens to become soiled.

1.2 Cap

Hinged to the base of the stapler is the cap. It is on this part that the user presses to cause a staple to be forcefully ejected from the stapler. The cap has a decorative nameplate on it, and latches to the magazine. The staple pusher and magazine spring are both attached to the stapler cap, and the hinge pin goes through it. By pulling up on the Cap, the user can gain access to the Magazine, by which access he can add additional staples or clear a staple jam.

1.3 Magazine

Attached to the underside of the cap by the Hinge Pin and a latch, the Magazine holds the row of staples. Along the center of the Magazine is a rail, on which the staples ride, and on each side of which there is room for the legs of the staples to travel. This ensures that the staples feed into the Staple Pusher squarely and evenly.
1.4 Magazine Spring

The Magazine Spring extends from the front of the Cap to a sliding metal piece in the magazine. When the Cap is depressed, and a staple is ejected from the stapler, the Staple Pusher prevents the row of staples from sliding forward. After the Cap is released, the Staple Pusher is no longer blocking the staples, and the Magazine Spring pulls the row of staples forward in the Magazine, putting the next staple under the Staple Pusher.

1.5 Staple Pusher

The Staple Pusher is a metal protrusion extending from the underside of the Cap into the front of the Magazine. When the Cap is depressed, the Staple Pusher shears the first staple off of the row of staples, and pushes it out of the Magazine.

1.6 Base Spring

This is a short, wide spring with a relatively high spring rate that fits between the base and the magazine. It exerts an upward pressure on the underside of the magazine, lifting the staple exit area free of the anvil and allowing paper to be inserted into the stapler.

1.7 Tacking Catch

The Tacking Catch holds the Magazine down, counteracting the Base Spring, and preventing the stapler from unfolding while in Stapling Mode. The user may press the Tacking Catch to convert the stapler from Stapling Mode to Tacking Mode.

1.8 Hinge Pin

The hinge pin is a round metal pin that goes through the base, cap, and magazine. It allows the cap (and the magazine, to which the cap is latched) to swing freely, except as limited by the Base Spring and Tacking Catch.
1.9 Anvil

The Anvil is a metal plate attached to the base, onto which the underside of the staple is pressed when stapling papers together. Depending on the position of the Interfold/Exterfold switch, the Anvil will either fold the legs of the staple inward or outward.

1.10 Interfold/Exterfold Switch

The Interfold/Exterfold Switch allows the user to change the stapler from Interfold Stapling mode to Exterfold Stapling mode, and vice versa. This is accomplished by placing a textured button on the underside of the Base, which is connected by a metal rod to the underside of the Anvil. The button is held out, away from the Base, by a spring, by which tension is applied holding the Anvil in place. If this button is depressed by the user, the Anvil will rise clear of a ridge on the Base, and can then be rotated to whichever configuration the user desires.

2 Configurations

The Stapler has three configurations: Interfold Stapling, Exterfold Stapling, and Tacking. By the use of the Tacking Catch and Interfold/Exterfold switch, the user may change between any of these three modes quickly and easily.

2.1 Interfold Stapling

Interfold Stapling is the default mode of the Stapler. In this mode, the Tacking Catch is holding the Magazine down against the Base Spring, leaving enough clearance between the Anvil and the Magazine to insert several sheets of paper. If paper is inserted, and the Cap depressed, the Staple Pusher will push a staple through the pages, folding the legs inward on the Anvil, which will hold the pages together.

2.2 Exterfold Stapling

In Exterfold Stapling, the Anvil pushes the legs of the staple OUTWARD, rather than inward, as in Interfold Stapling. In this mode, the Tacking Catch is still holding the Magazine down against the Base Spring, leaving room for
paper to be inserted, but the Interfold/Exterfold switch has been employed to rotate the Anvil $\pi$ radians to the Exterfold position. This will create a much straighter, longer staple profile on the underside of the paper.

2.3 Tacking

In the Stapler’s Tacking configuration, the Tacking Catch has been released, and the Magazine and Cap have been folded back, away from the base, allowing unhindered access to the underside of the Magazine in the staple exit area. This allows the user to place the stapler against a poster, or other paper, held against a flat surface, and depress the Cap, pushing a staple through the paper and into the surface. The Tacking mode is usually employed to attach a poster or flyer to a bulletin board or telephone pole, but may also be used to assist in informing a user that his practice of rectal millinery is not appreciated.