

Application No. 439: Keeping the front gate open

Author: Fabio, Italy

Entering the front gate freely

Table of Contents

Keeping the outside gate open

The outside gate of my garage has a problem: The gate doesn't stay open! The right part slowly closes by itself which is unnerving, especially when you try to drive your car out of the garage.



Hence my idea: Screwing a magnet to the outside wall that keeps my gate open!

I used a countersunk pot magnet CSN-ES-16 (www.supermagnete.de/eng/CSN-ES-16) that I attached to the outside wall. Since the wall is so rough, I had to screw the magnet onto a stable metal clasp.



Now, the iron gate sticks to the magnet and stays open.



Opened gate with marked countersunk pot magnet

I also made a video of this project:

...

Note: In hindsight, I would use a stronger countersunk pot magnet CSN-40 (www.supermagnete.de/eng/CSN-40) or CSN-48 (www.supermagnete.de/eng/CSN-48), because the small CSN only holds the gate open if you carefully push it against the magnet. If you swing it open, the magnet is not able to hold it.

Note from the supermagnete team:

- Our magnets are designed for dry indoor use. Continuous outside use will cause them to rust. For this application a ferrite pot magnet CSF-60 (www.supermagnete.de/eng/CSF-60) would be perfect.
- This application is similar to project "Door stopper" (www.supermagnete.de/eng/project56).

Keeping the garden gate open

Addition from customer R.K., Leverkusen (Germany):

I send you a not very creative application, but it goes to show that simple solutions are often the best ones. The gate that leads to my parents' garage is kept open with worn out metal fasteners on the left and right (see in the picture below)



The hooks are so beat up that any small breeze causes the gate to fall shut again, which is very annoying when you are trying to back the car out of the garage at that time.



So, my parents put a wire loop around the hook, which should secure the gate. But my mother was complaining about having to bend over every time she needed to open or close the gate.

Thereafter, I got two larger disc magnets (www.supermagnete.de/eng/S-15-08-N) with an adhesive force of 6,7 kg respectively and attached them to the hooks with a thick layer of duct tape. This solved the problem in a few minutes (see picture below).



A new construction would have been considerably more expensive.

And since the gate's position adjusts from time to time due to temperature changes in summer or winter, it doesn't matter if the hook doesn't fit exactly on the fastener. The magnet holds it in place.



Notes from the supermagnete team:

- The duct tape should protect the magnets from corrosion during wet weather. Make sure the magnets are completely wrapped.
- Neodymium magnets chip easily under heavy pressure. Don't let the gate crash into the magnets. A thick layer of duct tape can protect the magnets a little from heavy blows.
- Using rubberised neodymium magnets (www.supermagnete.de/eng/group/rubber_coated) would make things easier: They are waterproof and don't break easily. For a comparable disc we recommend S-20-10-R (www.supermagnete.de/eng/S-20-10-R).

Articles used

1 x CSN-ES-16: Countersunk pot magnet Ø 16 mm (www.supermagnete.de/eng/CSN-ES-16)

1 x CSN-40: Countersunk pot magnet Ø 40 mm (www.supermagnete.de/eng/CSN-40)

1 x CSN-48: Countersunk pot magnet Ø 48 mm (www.supermagnete.de/eng/CSN-48)

1 x CSF-60: Ferrite pot magnet (www.supermagnete.de/eng/CSF-60)

1 x ZTN-42: Pot magnet with cylindrical borehole (www.supermagnete.de/eng/ZTN-42)

1 x ZTN-48: Pot magnet with cylindrical borehole (www.supermagnete.de/eng/ZTN-48)

1 x ZTN-60: Pot magnet with cylindrical borehole (www.supermagnete.de/eng/ZTN-60)

S-15-08-N: Disc magnet Ø 15 mm, height 8 mm (www.supermagnete.de/eng/S-15-08-N)

S-20-10-R: Disc magnet rubber coated Ø 22 mm, height 11,4 mm (www.supermagnete.de/eng/S-20-10-R)

Online since: 30/12/2010

The entire content of this site is protected by copyright. Copying the content or using it elsewhere is not permitted without explicit approval.