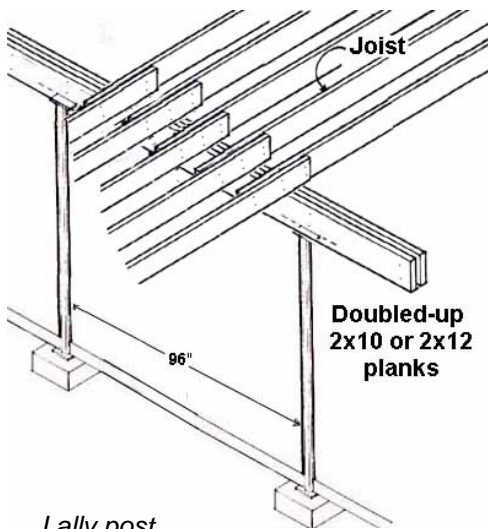




## REPLACING A LALLY POST

Let's say that you see your child's ball rolling across the living room floor towards the wall – seemingly on its own. Most likely, it's not the action of a poltergeist, but simply the result of a floor that sags towards the interior wall. It's not unusual for some sagging of the floor to occur in older houses as they settle over the years. However, a very pronounced sag may mean that you have a problem with the center support beam in the basement, or with the columns holding up that beam.

Depending on the age of your house, the support beam may be a solid piece of wood, a laminated beam made from 2"x12" planks, or a steel I-beam. You will usually find it near the middle of the basement, supporting the floor joists. Since it was nearly impossible to find 2x10 planks long enough to span the entire house, most builders used two lengths of floor joists, overlapping them on top of the support beam (*see illustration below*). For a 26-foot-wide house, for example, you will usually find two 14-foot-long floor joists resting on the beam, overlapped 24 inches. The stability of the entire house depends on that center beam.



*Lally post*

The beam is itself supported by hollow iron pipe columns (also known as "Lally posts") every eight feet. Each post rests on a concrete footer, 10 to 12" thick, hidden under the basement floor (*see illustration on next page*). Lally posts often rust away where they meet a damp concrete floor; with insufficient support, the center beam will then start to sag. To remedy the problem, many people buy a floor-jack post, place it near the original Lally post, and jack up the beam. While this technique will bring the floor back up into position, it does not meet the Building Code in most communities. The correct repair is to install a new Lally post that rests on a footer and is secured both to the footer and to the beam, so that the post cannot be bumped out of place.

Sometimes you can accomplish the job by raising the beam just a bit with a hydraulic bottle jack and temporarily supporting it with a wood post. Then, use a reciprocating saw (Sawzall™) to cut the old iron post at the top and at the bottom flush with the floor and remove it. Since the newer steel posts have a smaller diameter than the old iron posts, the new steel post can sit inside the remaining section of the old one below the floor level and be mortared into place. However, if the problem area is not above an existing old footer, you will need to cut into the floor and pour a new footer to support the column you're installing. (Be sure to let the concrete cure for about two weeks before applying any pressure on the column.)

This is a process that should not be done too quickly, or the wall plaster or wood trim will crack as you take the sag out of the floor. To minimize the development of cracks, lift the

*(continued)*

beam in quarter-inch increments over a few days. Lift the support post with the hydraulic jack, and then adjust the threaded rod at the top of the lally post until it is snug up against the beam. Repeat this process until the floor is approximately level.

