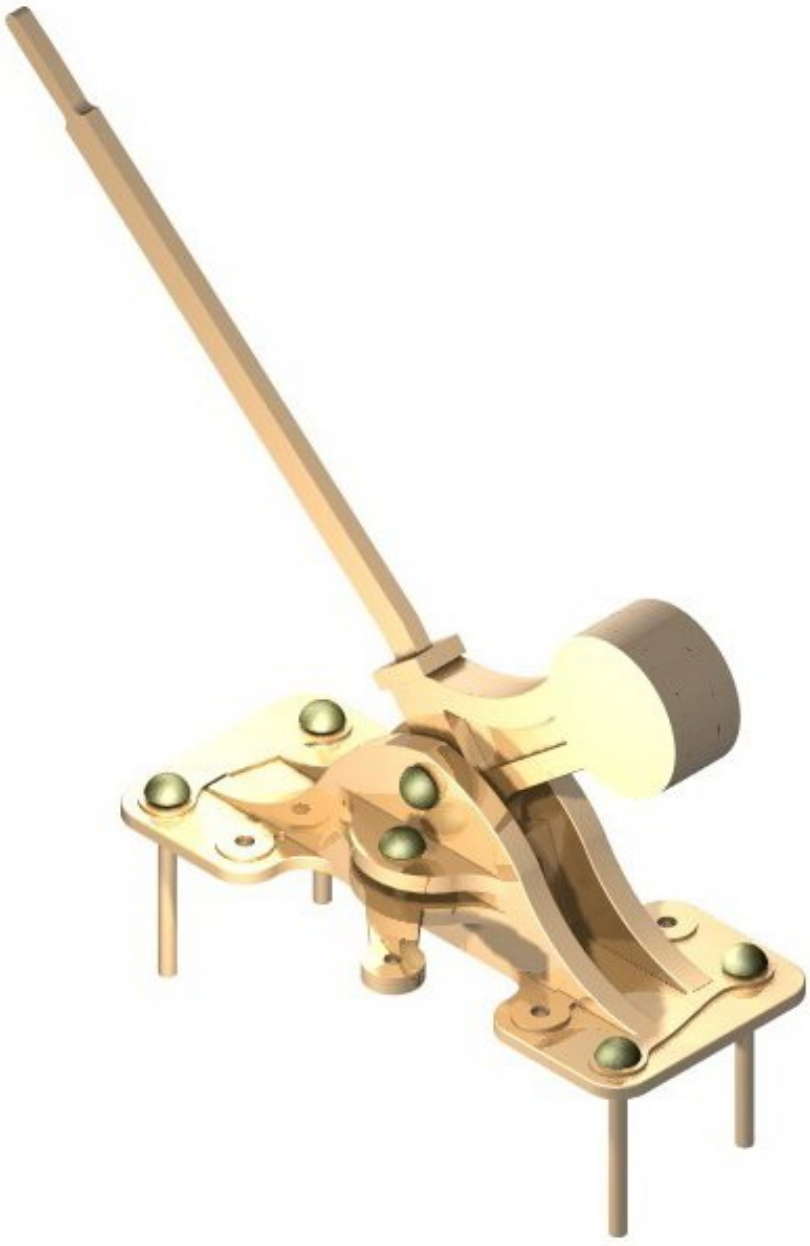
Keiran Ryan Models
KRM 7mm 009 Hold Down Lever

Instructions.

Produced By

Keiran Ryan

Introduction to this Kit



This kit is a simple 7mm (1:43 scale) Hold down lever that can be found in any small working railway yard. The photo samples are taken from the levers at Thirlmere NSW in the Rail Transport Museum yard.

The kit consists of cast brass parts, etched brass parts, and 6 lace pins. And is very simple to put together.

The modeller will need to supply the sleepers to locate the lever on as well as the link rods to the point.

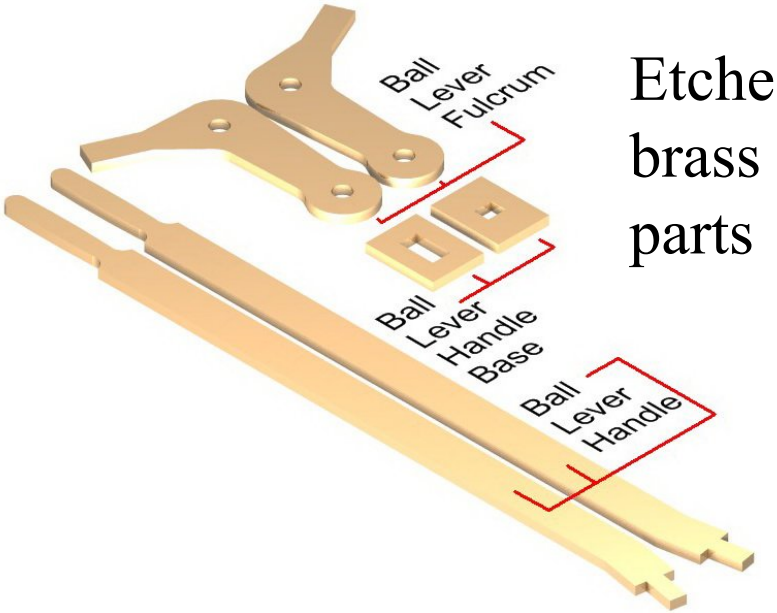
Can the Hold Down Lever work or not?

The Hold Down Lever, is used in yards with the lever being held as the train passes over the points. The lever is not used remotely and it would always require an operator to hold the lever whilst it is being used.

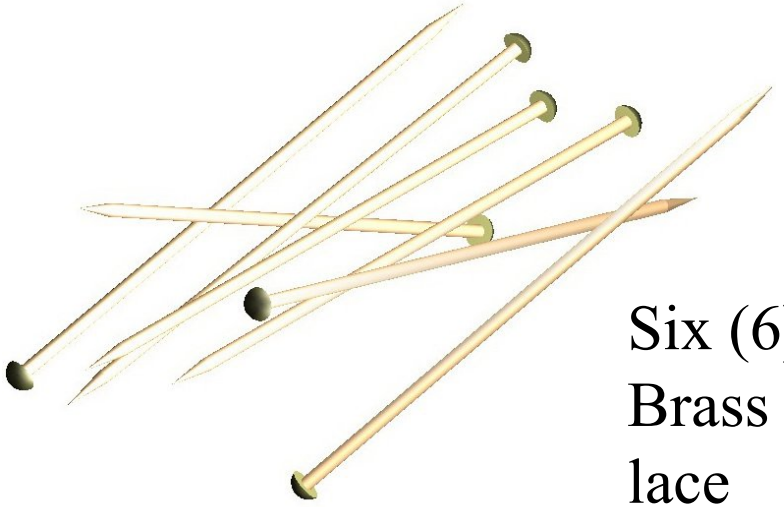
This kit is solid, and can be used to operate the points, but I would suggest that you might want to have the lever operate in reverse by moving the point from below and therefore have the point operate the lever.

To make this look as real as possible it would be more realistic to have a model shunter with a fluid arm that moves with the point lever.

Let's look at what is in this kit?

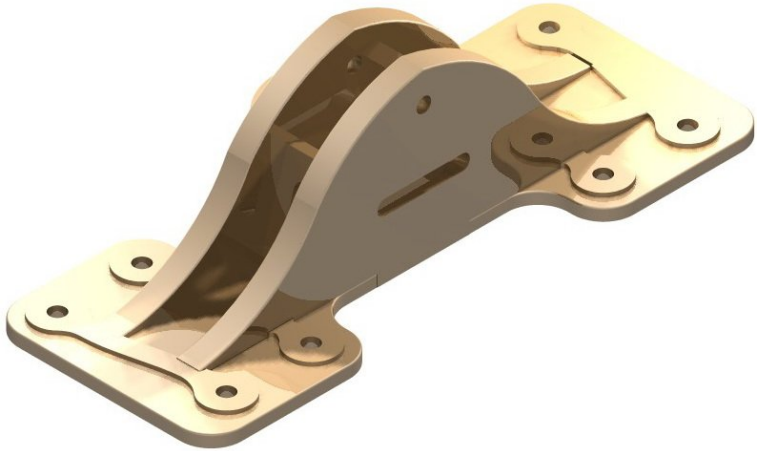


Etched brass parts

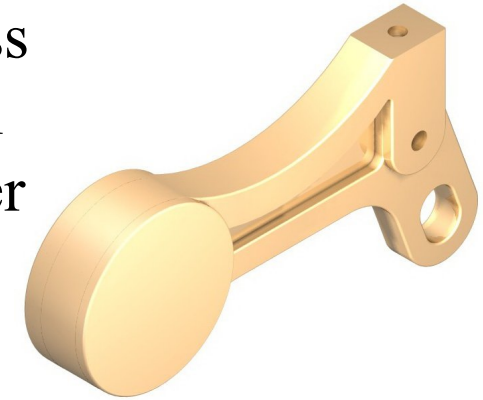


Six (6) Brass lace pins

Cast brass Base



Cast brass Ball lever



Lets put it together.

•You will need a few tools to work with this kit, but the most important tool is the ability to read, yes, please read the instruction 3 times so that you know exactly what you will be doing.

•The following tools required are: -

•Good cutting pliers,

•Number drills (particularly 0.5mm and 0.55mm),

•Soldering iron, flux and solder,

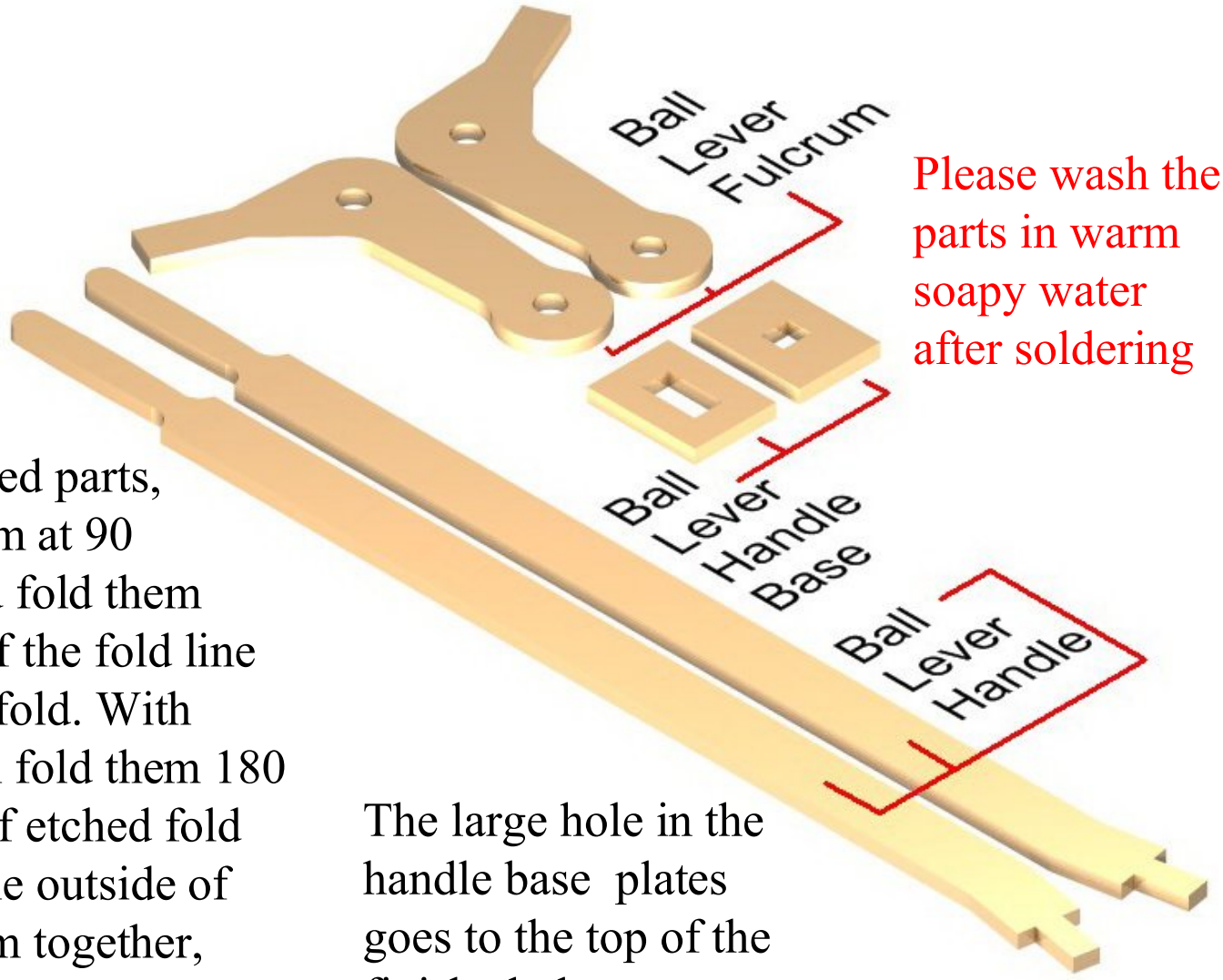
•Fine files.

•Brass, wire and shim to make up the rods and connections to the points.

Where do we start?

The etched parts are a good starting point, and all that needs to be done with the parts is to fold and laminate them together.

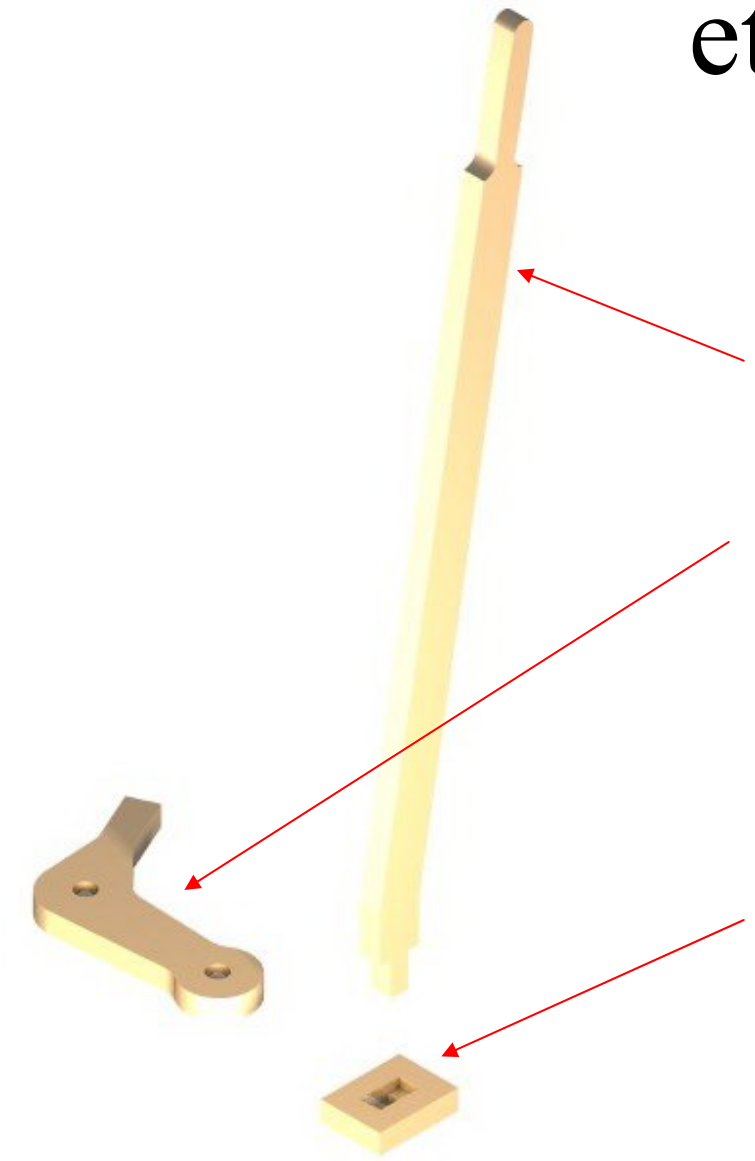
Normally with etched parts, (when you fold them at 90 degrees) you would fold them with the half etch of the fold line to the inside of the fold. With these parts, you can fold them 180 degrees, but the half etched fold line should be on the outside of the fold, solder them together, then clean up the soldered joints.



Please wash the parts in warm soapy water after soldering

The large hole in the handle base plates goes to the top of the finished plate

The results of the soldered etches.



The etched parts are easy to understand.

•The Ball Lever Handle - For operating the point lever.

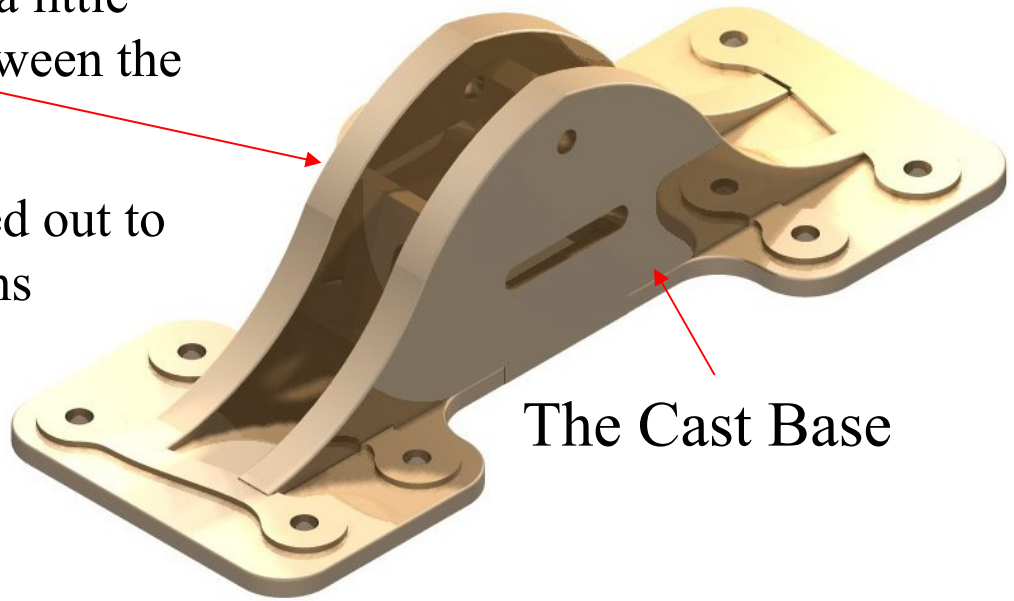
•The Ball Lever Fulcrum – The actuating lever that links the ball lever to the actuating rod of the point.

•The Ball Lever Handle Base. This is the plate that sits on top of the ball lever and assists in locating the lever arm. The lever arm slots into the plate.

Now for the castings.

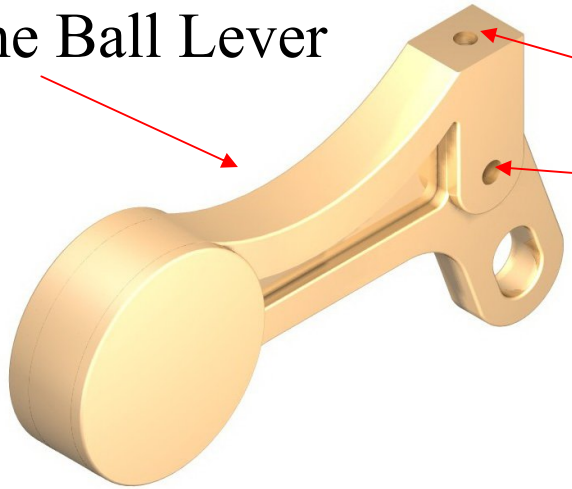
The Cast Base, may need another a little cleaning up, mainly in the slot between the 2 fulcrum pivot plates.

The rest of the holes can be cleaned out to accommodate the 0.55mm lace pins



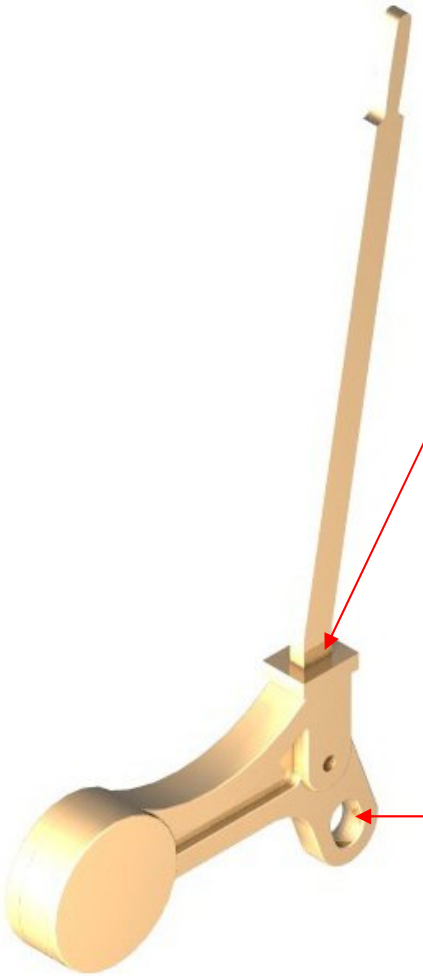
The Cast Base

The Ball Lever



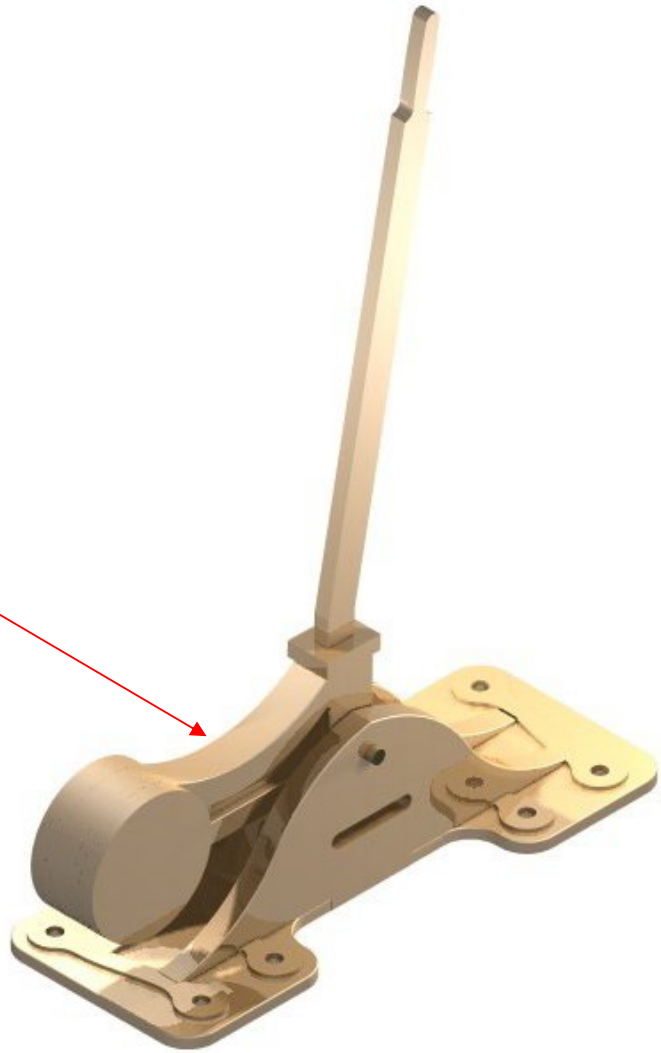
The Ball Lever will need the two holes indicated to be drilled out to accept the lace pins. The hole in the top, needs to be drilled out to accept the extension of the lever arm. The pivot hole needs to be drill out completely.

Now if we put the etches together with the castings ---. Voila!!!!



The lever arm is located and soldered into the top of the ball lever, as well as the handle plate.

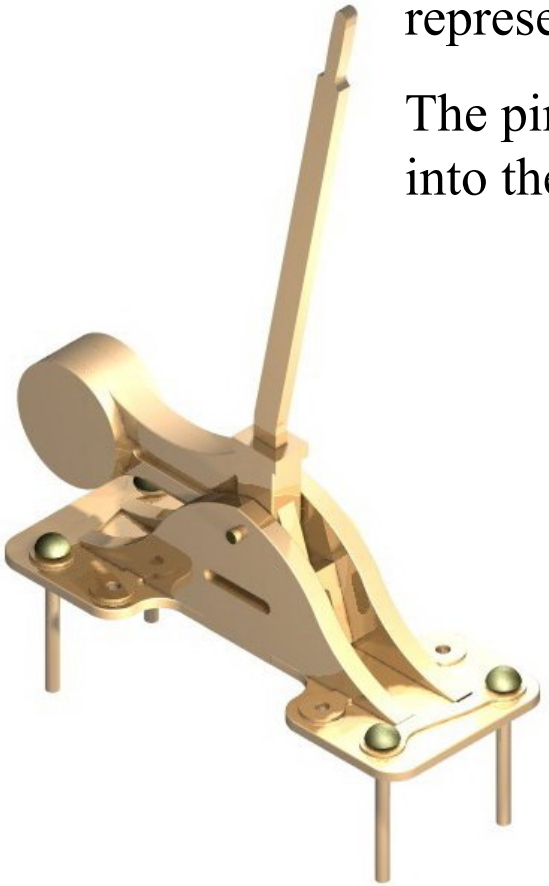
The fulcrum is located between the two plates on the side, with the other end of the fulcrum located into the elongated hole in the ball valve



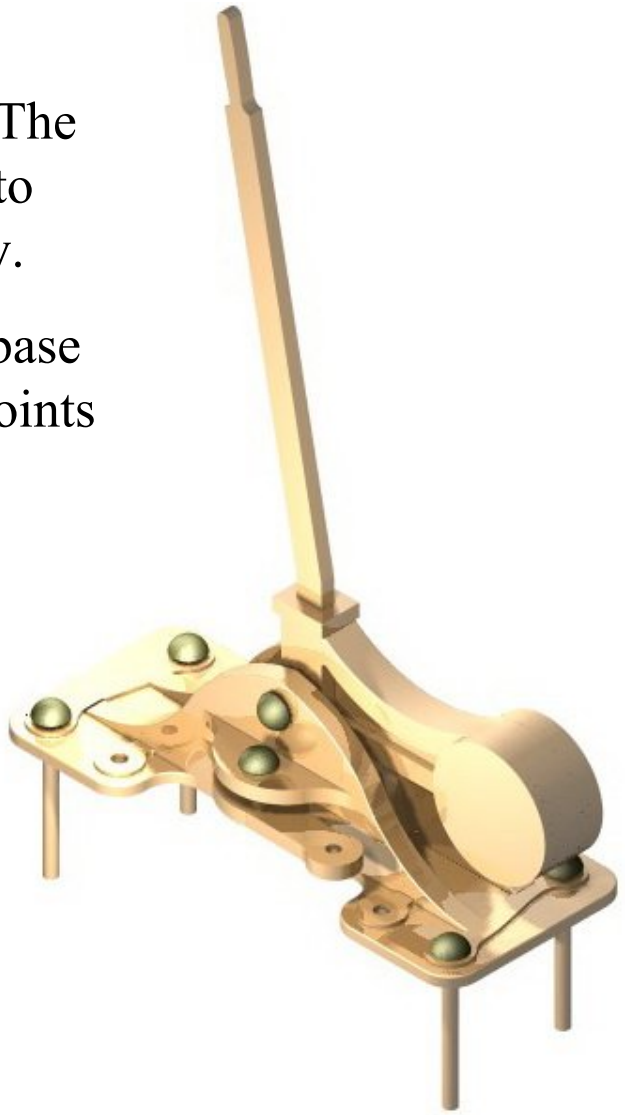
So what are the brass lace pins for?

The pins are uses to pivot the parts. The heads of the pins can be filed down to represent the pivot pins more closely.

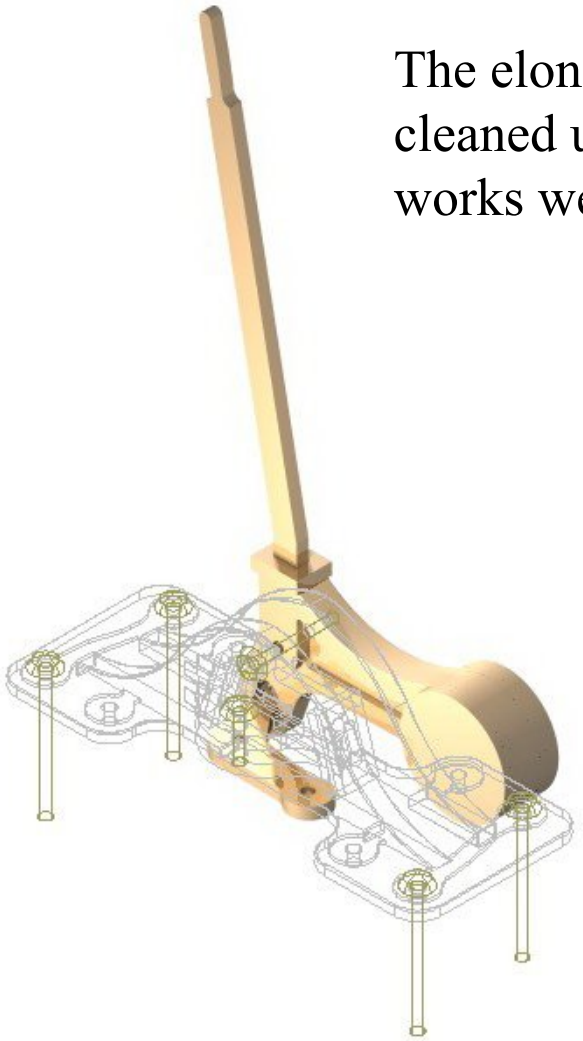
The pins are also used to locate the base into the timber sleepers beside the points



The two pictures show the 2 positions of the Ball Lever.--- Note the location of the fulcrums.

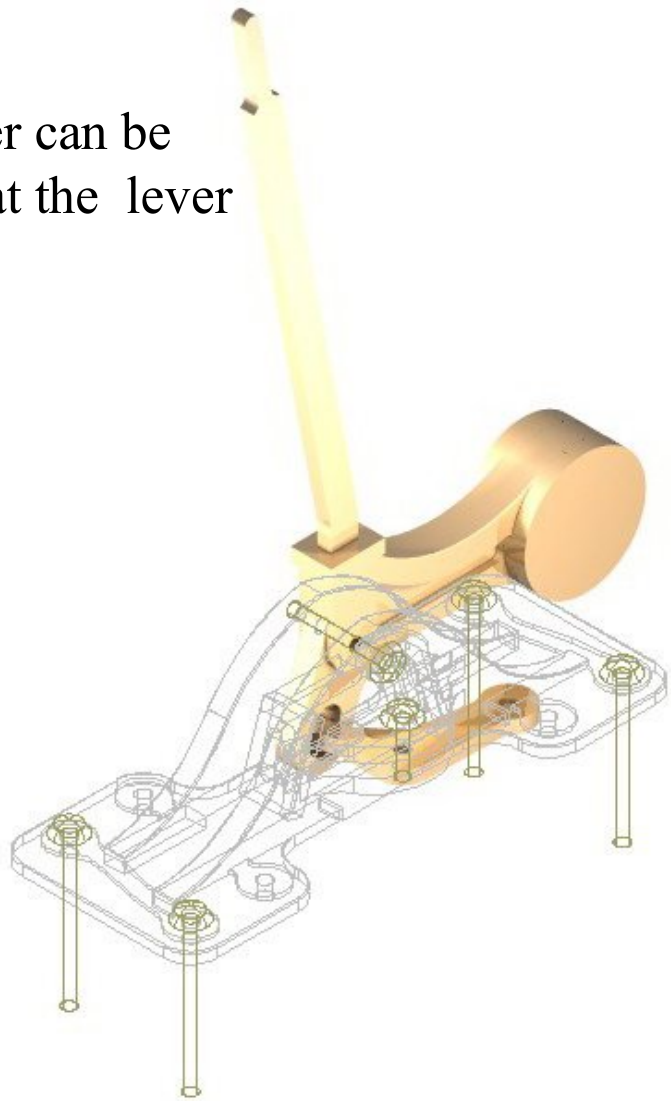


Better views of the fulcrum positions.

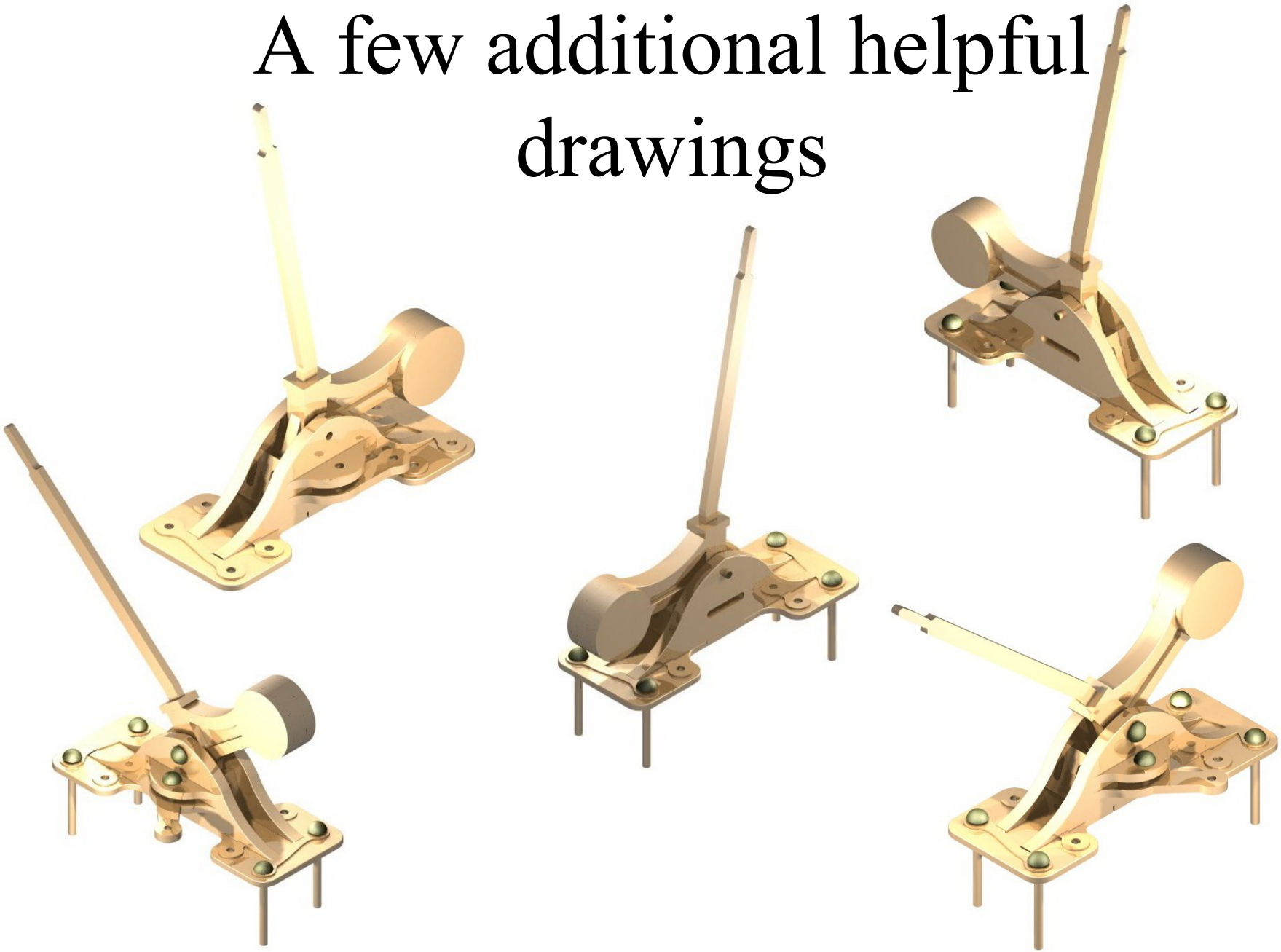


The elongated hole in the ball lever can be cleaned up a little to make sure that the lever works well.

A little graphite powder will also assist in the operation of the lever.

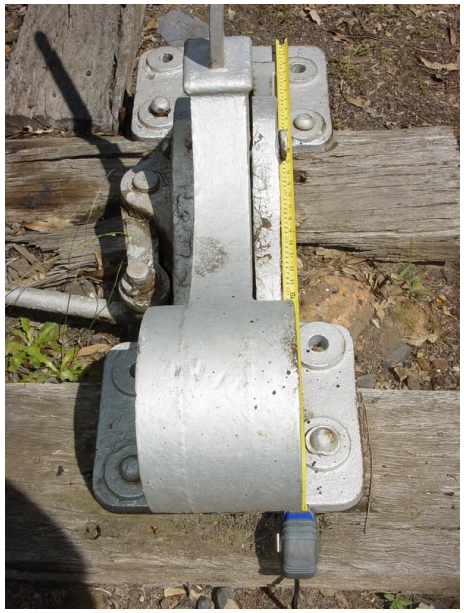


A few additional helpful drawings



Photos of the originals.

Photos of the originals. (Cont)



Conclusion

•The ball lever can be painted silver or white, so photos of the lever you are modelling would be very handy.

•Use graphite powder or grease at points where wear will occur on the hold down lever.

•Use photographs to obtain the correct type of rods and links from the lever to the point.

•The use of a fluid armed scale shunter would look really good with this ball lever, as they need to be manned when in use.

•Any feedback be it positive or negative is always welcome at Keiran Ryan Models. I can be contracted on any of the media methods below.

•Email - krmodels@gmail.com

•Telephone - 02 46772462

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•I hope you enjoy the kit, and continue to have fun with Model Railways