

*Centenary Meccano Set 00+*

## The story behind this Meccano Set

In 2007 I was trying to decide how to introduce my three year old grandson to Meccano. Give him a made-up crane? Put together a small set? My earliest recollections were that the best small models came from a coverless pre-war manual that had shed many pages front and back. The models were easy to assemble and worked well. No bending of plates or strips, just use the parts as they are.

The old manual still survived but the pages towards the front that I wanted had long since disappeared. On hunting around I eventually found the models like old friends in the Set 00 section of a 1928 manual. The instructions were very dated and some really useful parts did not then exist. I therefore made up the set including some of these parts and with modernized instructions for building 22 models.

Four sets in all went to children in the 3-6 age range. They seemed to go down really well, so I decided to do a hands-on display for the 2007 West London Meccano Society Exhibition based on the history of the small set from the Kindergarten Set of 1907 to a 1979 Set 2.

Sets representing four main periods (in content, not age; the parts have hardly changed) were on display together with many models. We also had some contemporary models built from dedicated sets, a microlite and a digger.

Everyone was invited to turn the handles and children were invited to make things, which they did, in droves! There were two different approaches: copy one of the models or build something completely different off the top of your head. By far the most popular model was the sword. This allows you to fit and tighten your first nut and bolt and was accompanied by expressions of pure wonder that were lovely to behold. We had quite a few anchors as well, a bit more complicated. It was interesting that children as young as 3½ were putting the sword together and tightening the bolt. The girls were as keen as the boys, if not more so!

Then, in November 2007, Christchurch Meccano Club had a small model competition which resulted in some really good models. The instructions have now been expanded to 33 models including all these plus others suggested by Ellis Cory.

In 2008, Meccano Enthusiasts around the world decided on a Christmas Challenge to build a model from the small set. This was conducted on the internet and has resulted in many excellent models and much online debate.

Coming right up to date, in 2016 the splendid new Heath Robinson Museum in Pinner held a Meccano Workshop for children aged 9+ who each built the Bucking Bronco model. It was repeated this year on a broader basis and the 18 children received an 00+ Set of their own to keep.



















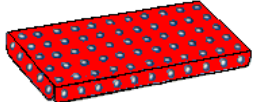








Why 'Centenary Set 00+'. It is the 1928 Set 00 with some additions and by coincidence appeared exactly 100 years after the name 'Meccano' was registered as a trademark in September 1907. I like to think that, by now, a lot of children have been given the set.

Long live Meccano!

Peter Harwood. November 2017



## Parts List for Centenary Meccano Set 00+

No.	Part description		Qty
2	Strip, 11 holes		4
5	Strip, 5 holes		6
10	Fishplate		4
11	Double bracket		1
12	Angle bracket		6
16	Long axle		2
17	Short axle		2
19s	Crank handle		1
22	Pulley		4
24	Bush wheel		1
34	Spanner		2
35	Spring clip		8
36	Screwdriver		1
37a	Nut		25
37b	Bolt		25
38	Washer		8
40	Hank of cord	Use fine parcel string	
44	Bent strip, stepped		1
48a	Double angle strip		2
52	Flanged Plate		1
57	Hook		1
90a	Curved strip		2
111c	Long bolt		4
125	Reverse angle bracket		1
126	Trunnion		2
126a	Flat trunnion		2
142c	Tyre		4
155	Rubber ring		4

## Sword



### Parts

Strip, 11 holes	1
Nut	1
Bolt	1
Curved strip	1

## Spinning Top



### Parts

Short axle	1
Pulley	1
Bush wheel	1

## Battle Axe



### Parts

Strip, 11 holes	1
Nut	1
Bolt	1
Flat trunnion	2

## Anchor

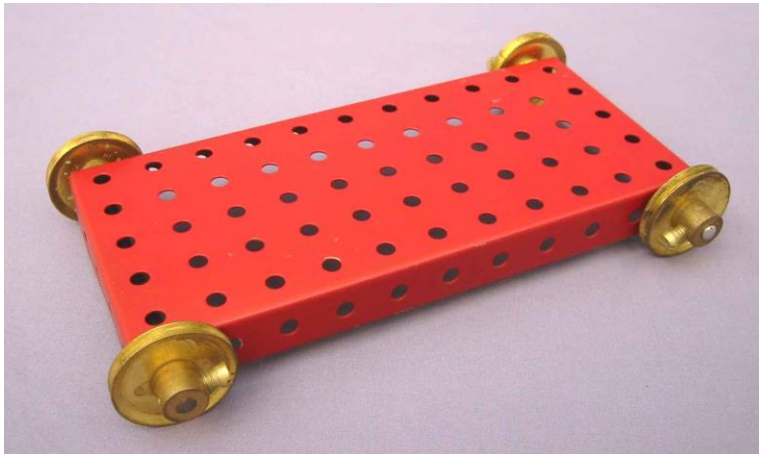


### Parts

Strip, 11 holes	1
Strip, 5 holes	1
Nut	4
Bolt	4
Curved strip	2



## Trolley



### Parts

Long axle	2
Pulley	4
Washer	4
Flanged plate	1

Fit a washer behind each pulley.

Leave a very small gap between each washer and pulley so that the axles turn easily.

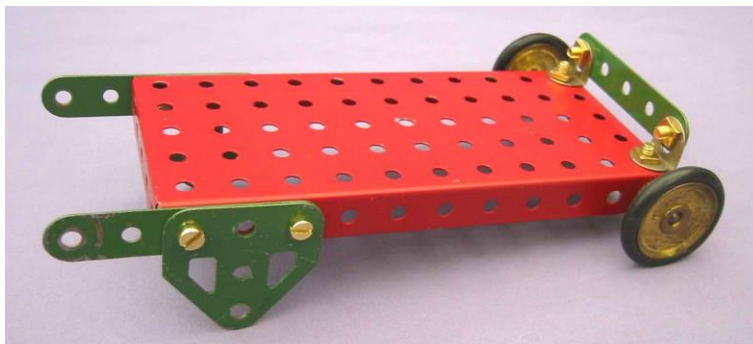
## Bench



### Parts

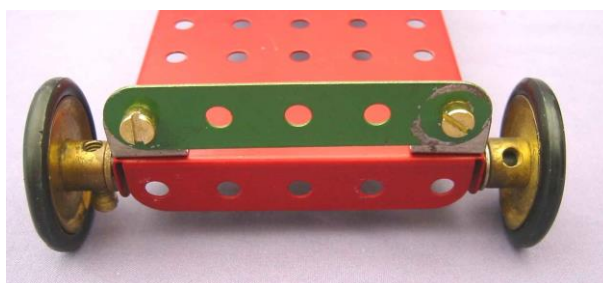
Strip, 11 holes	4
Strip, 5 holes	2
Nut	10
Bolt	10
Double angle strip	2
Flanged plate	1

## Porter's Trolley

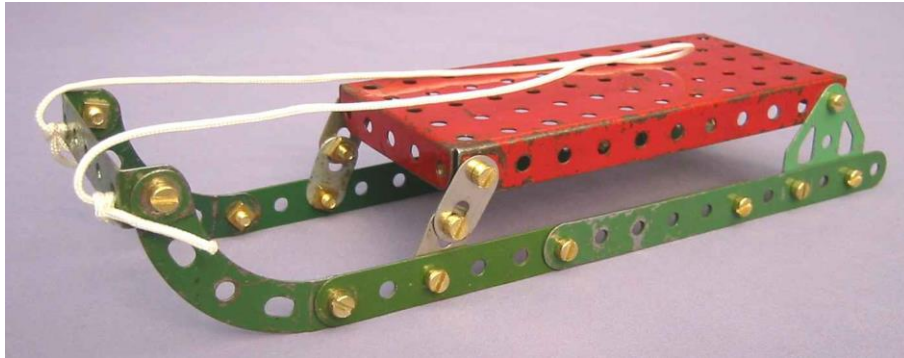


### Parts

Strip, 5 holes	3
Angle bracket	2
Long axle	1
Pulley	2
Nut	8
Bolt	8
Washer	2
Flanged plate	1
Flat trunnion	2



## Sledge



### Parts

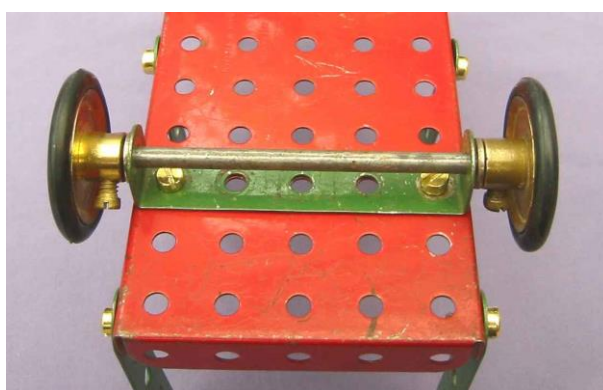
Strip, 11 holes	4
Fishplate	4
Nut	20
Bolt	20
Double angle strip	1
Flanged plate	1
Curved Strip	2
Flat trunnion	2

## Timber Carriage

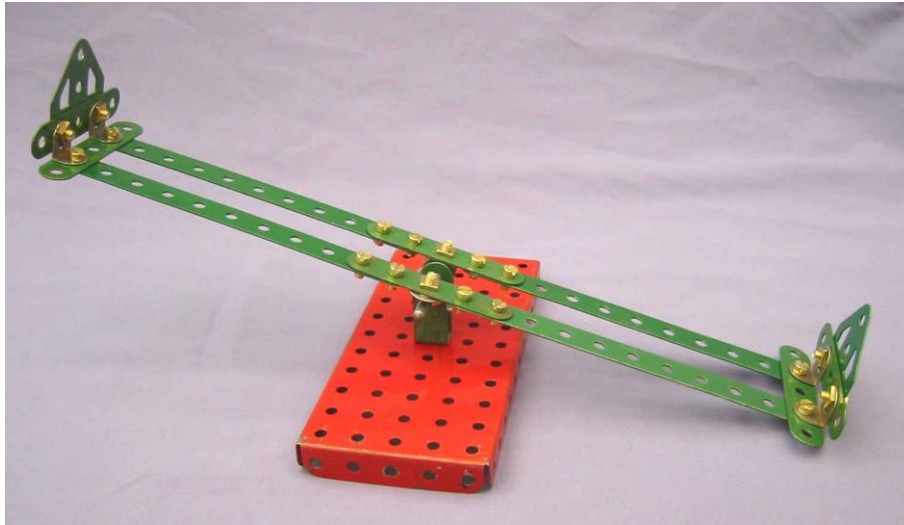


### Parts

Strip, 5 holes	6
Long axle	2
Pulley	4
Nut	10
Bolt	10
Washer	4
Double angle strip	2
Flanged plate	1

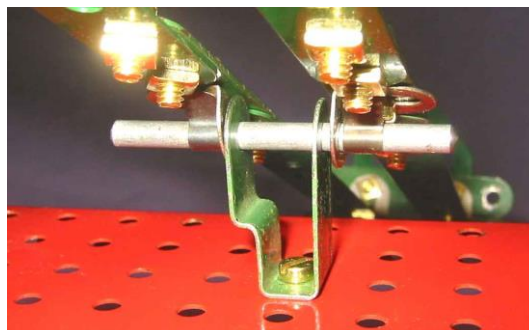


## Seesaw

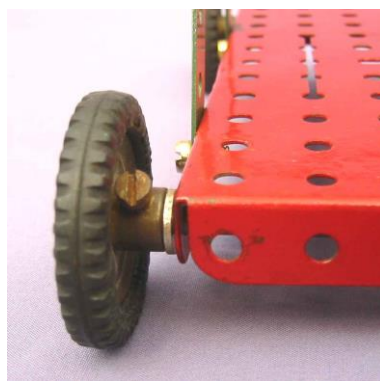
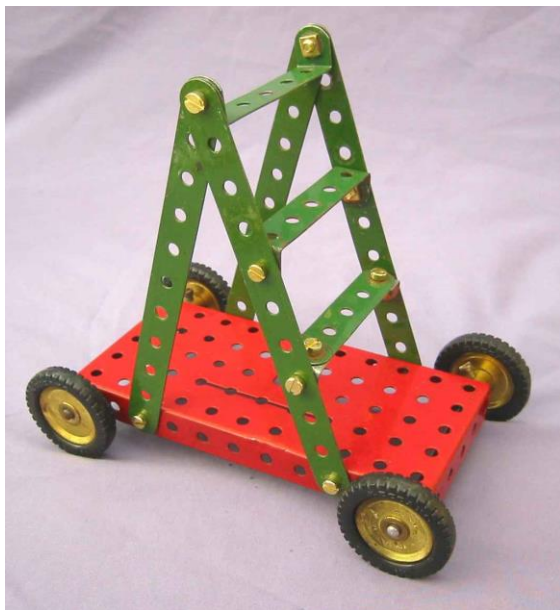


### Parts

Strip, 11 holes	4
Strip, 5 holes	6
Angle bracket	6
Short axle	1
Spring clip	2
Nut	19
Bolt	19
Washer	2
Bent strip, stepped	1
Flanged plate	1
Flat trunnion	2



## Ladder on Wheels

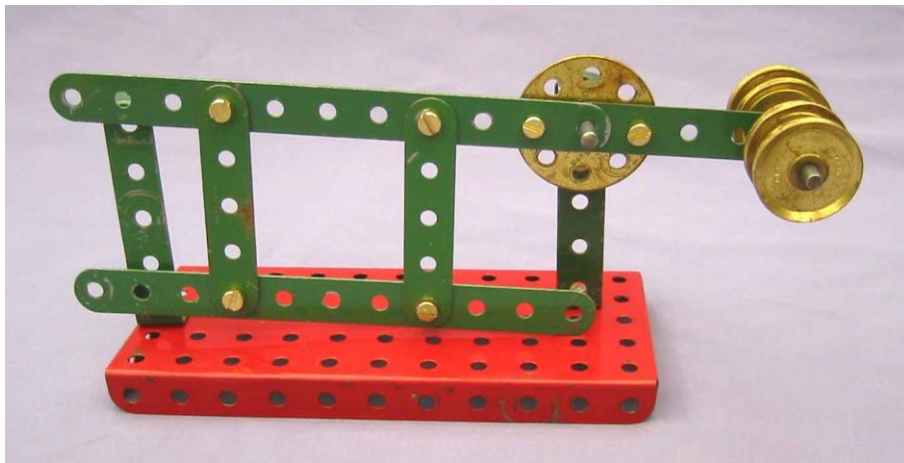


### Parts

Strip, 11 holes	4
Strip, 5 holes	1
Angle bracket	2
Long axle	2
Pulley	4
Nut	12
Bolt	12
Washer	4
Double angle strip	2
Flanged plate	1



## Level Crossing Gate



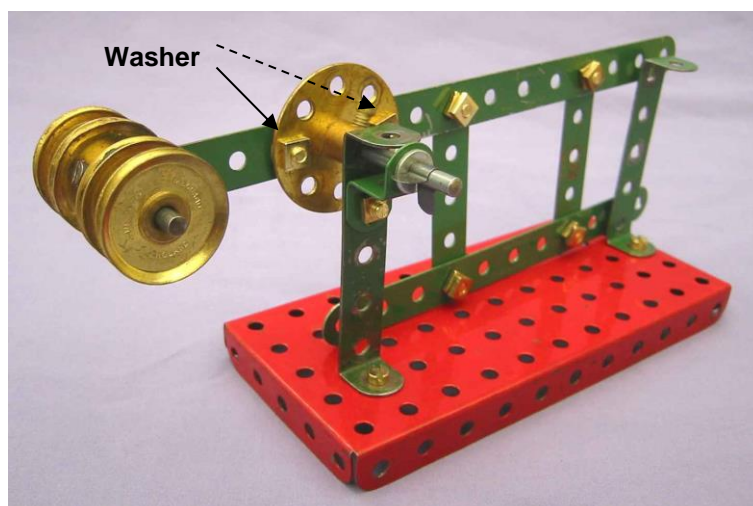
### Parts

Strip, 11 holes	2
Strip, 5 holes	3
Short axle	1
Pulley	4
Bush wheel	1
Nut	13
Bolt	9
Washer	4
Double angle strip	2
Flanged plate	1
Reversed angle bracket	1

Fit washers against the bushwheel on the bolts holding the strips.

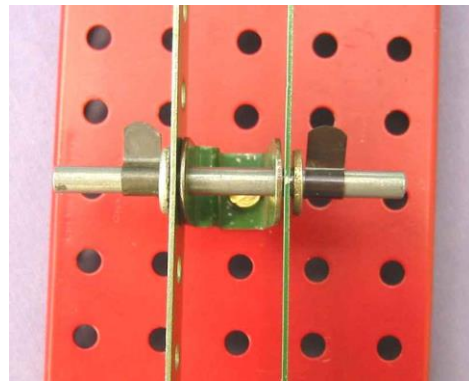
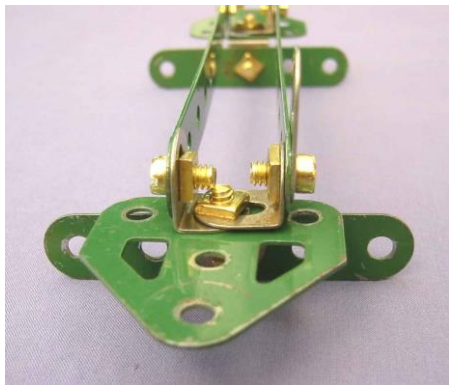
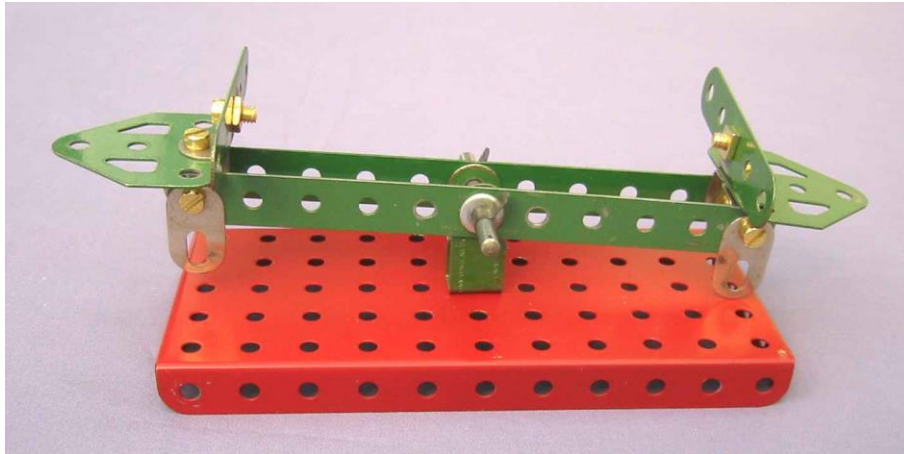
Fit a washer behind the bushwheel and under the spring clip.

Hinge the 5 hole strips to the 11 hole strips using two nuts on each bolt. Tighten the two nuts against each other using two spanners to form a lock nut.





## Scales

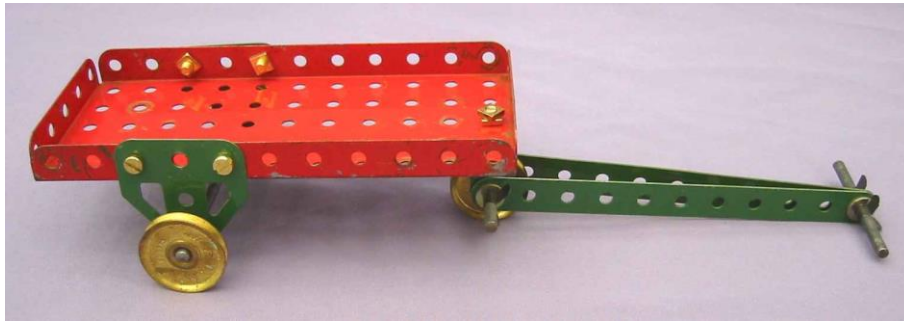


### Parts

Strip, 11 holes	2
Strip, 5 holes	2
Fishplate	2
Angle bracket	6
Short axle	1
Spring clip	2
Nut	9
Bolt	9
Washer	2
Bent strip, stepped	1
Flat Trunnion	2

Bend the 11 hole strips outwards slightly to give a small gap on either side of the bent strip. Fit the spring clips without closing the gap.

## Luggage Cart

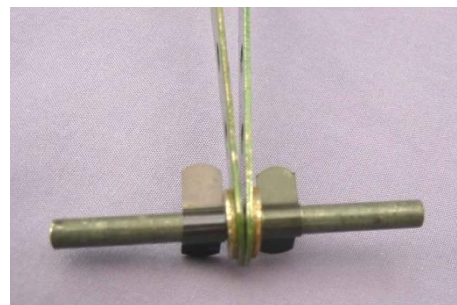
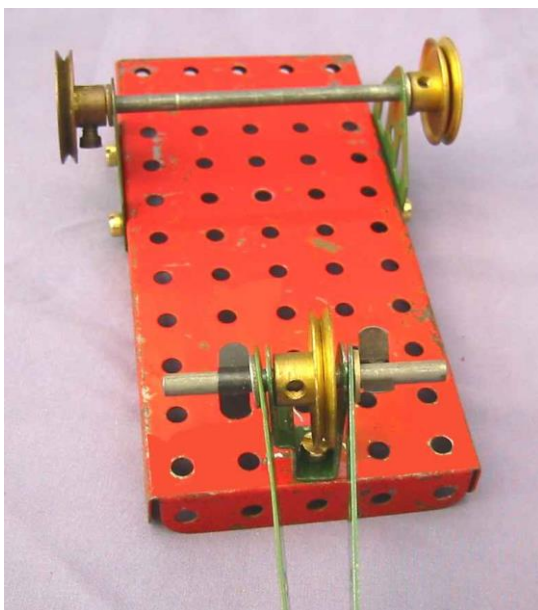


### Parts

Strip, 11 holes	2
Long axle	1
Short axle	2
Pulley	3
Spring clip	4
Nut	6
Bolt	4
Washer	4
Bent strip, stepped	1
Flanged plate	1
Flat Trunnion	2

Lock-nut the bent stepped strip to the flanged plate. Not too loose or the wheel will wobble.

The front wheel is loose on the axle. Remove the set screw or it will fall out and get lost. Bend the bent stepped strip open slightly if the pulley is tight.



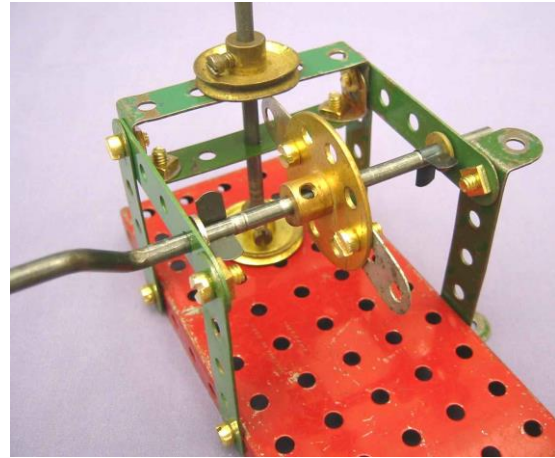
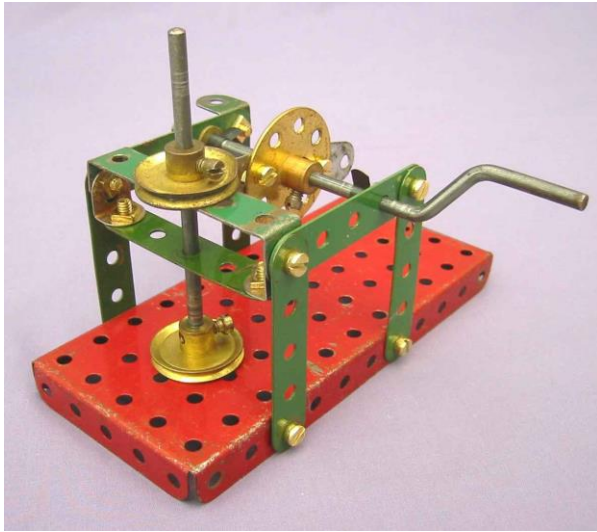
## Swing



### Parts

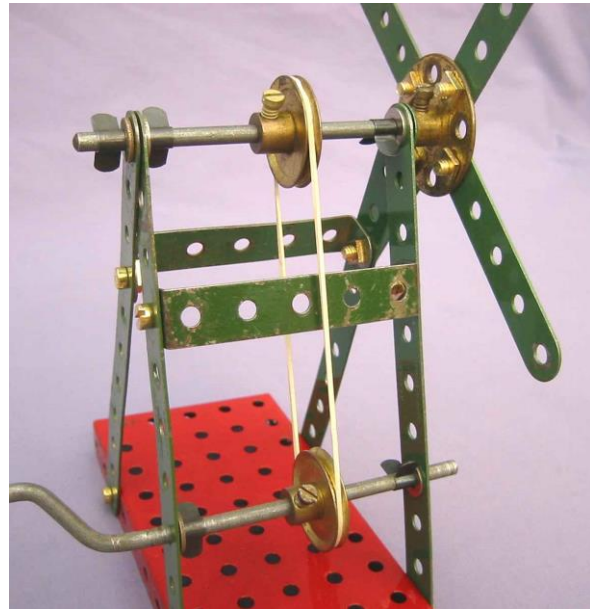
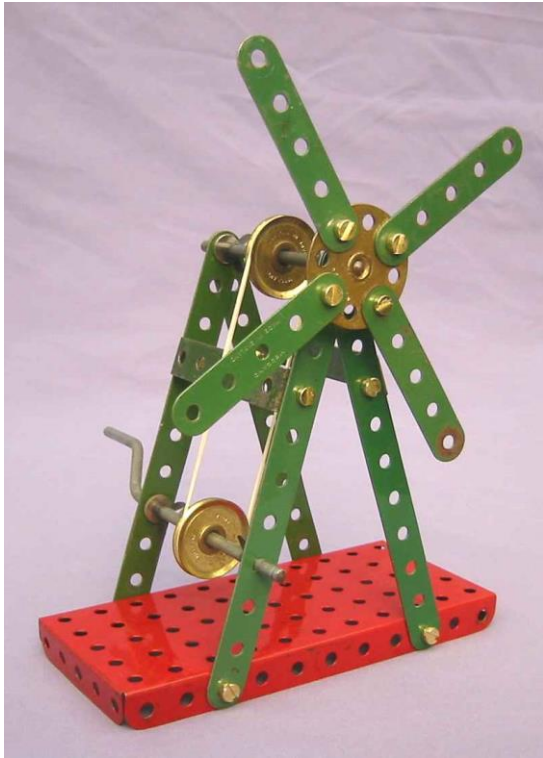
Strip, 11 holes	4
Strip, 5 holes	2
Angle bracket	2
Nut	18
Bolt	18
Double angle strip	1
Flanged plate	1
Trunnion	2

## Ore Crusher



### Parts

Strip, 5 holes	6
Angle Bracket	2
Fishplate	2
Long axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	2
Nut	14
Bolt	14
Washer	2
Double angle strip	2
Flanged plate	1

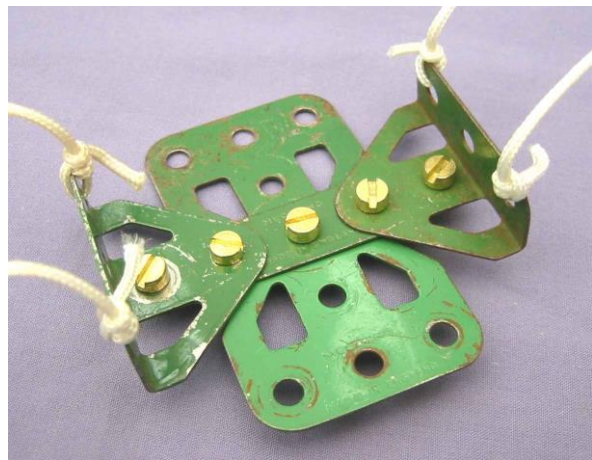
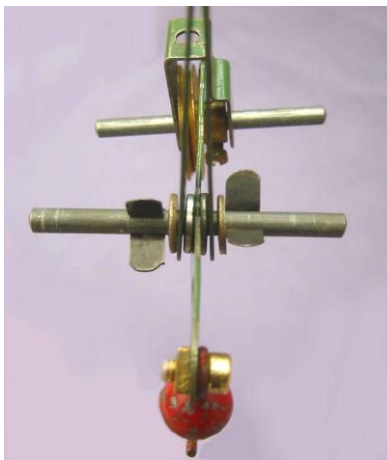
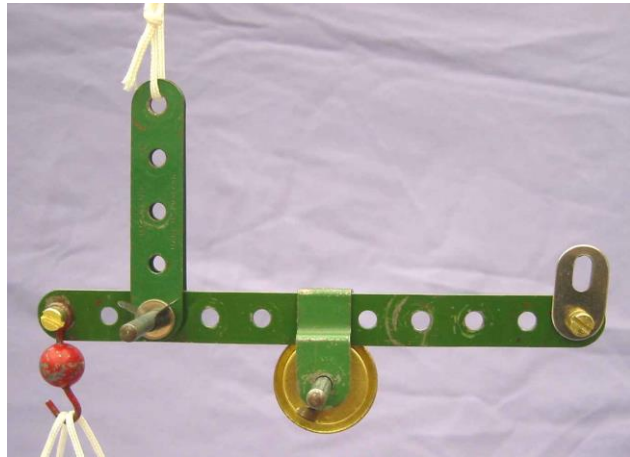
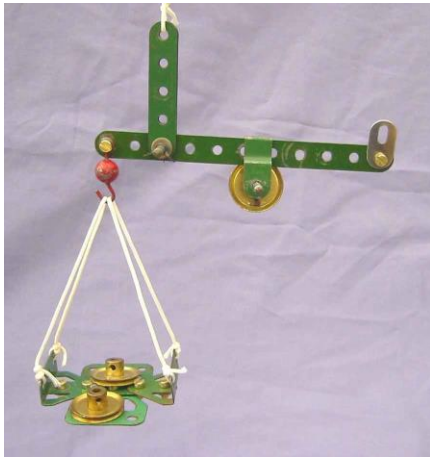
**Windmill****Parts**

Strip, 11 holes	4
Strip, 5 holes	4
Long axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	5
Nut	12
Bolt	12
Washer	6
Double angle strip	2
Flanged plate	1

Use an elastic band as a drive belt for the pulleys.



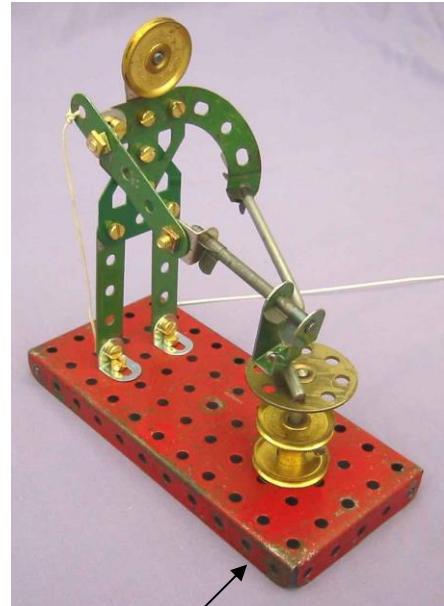
## Roman balance



### Parts

Strip, 11 holes	1
Strip, 5 holes	2
Fishplate	1
Short axle	2
Pulley	1
Nut	7
Bolt	7
Washer	4
Bent strip, stepped	1
Hook	1
Trunnion	2
Flat trunnion	2

## Blacksmith



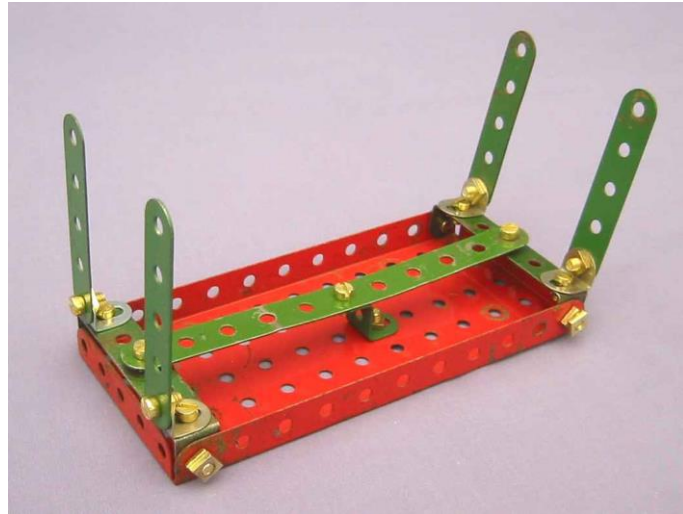
Pulley underneath

### Parts

Strip, 5 holes	3
Fishplate	2
Angle bracket	4
Short axle	2
Crank handle	1
Pulley	4
Bush wheel	1
Spring clip	6
Nut	15
Bolt	14
Bent strip, stepped	1
Flanged plate	1
Curved strip	1
Long bolt	1
Flat trunnion	2



## Collapsible Table



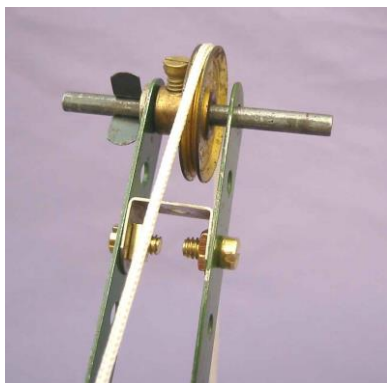
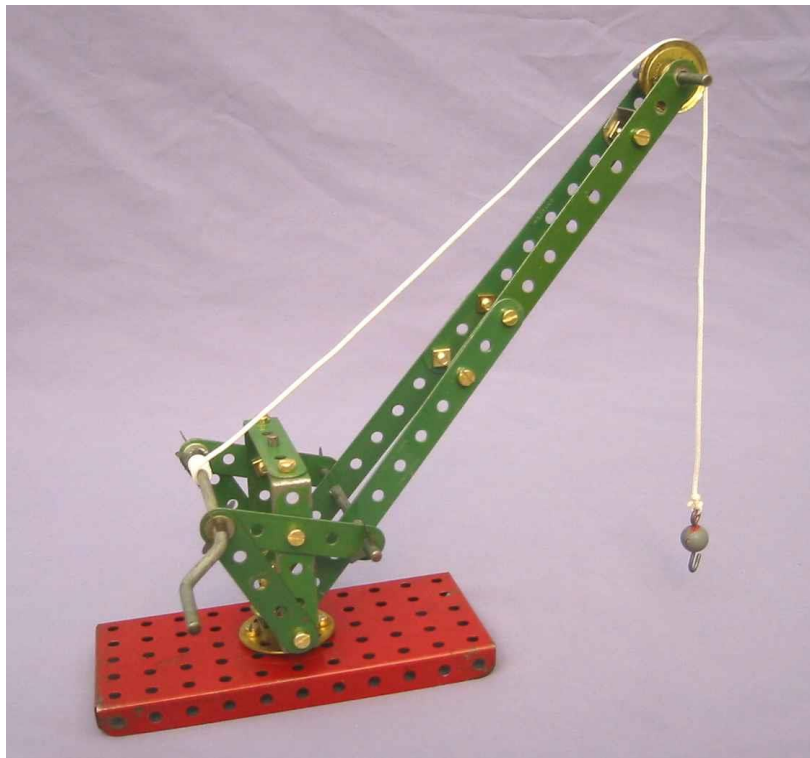
Lock  
Nuts

### Parts

Strip, 11 holes	1
Strip, 5 holes	4
Angle bracket	4
Nut	20
Bolt	16
Double angle strip	2
Flanged plate	1
Reversed angle bracket	1



## Crane

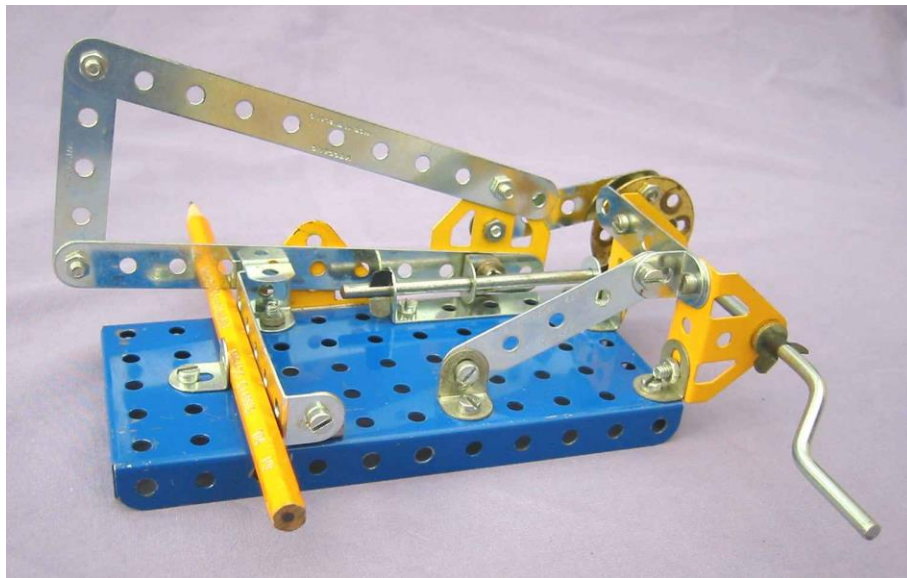


### Parts

Strip, 11 holes	4	Bush wheel	1
Strip, 5 holes	6	Spring clip	7
Double bracket	1	Nut	17
Angle bracket	2	Bolt	17
Long axle	2	Washer	5
Short axle	1	Double angle strip	2
Crank handle	1	Flanged plate	1
Pulley	2	Hook	1

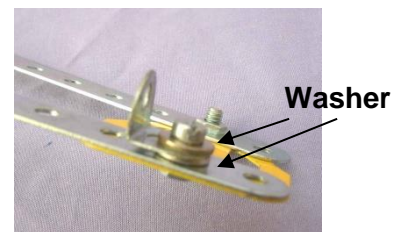
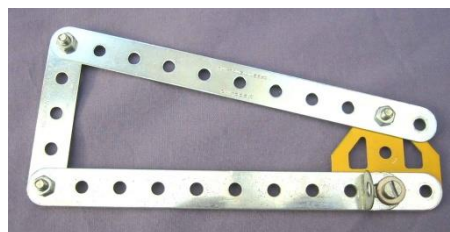
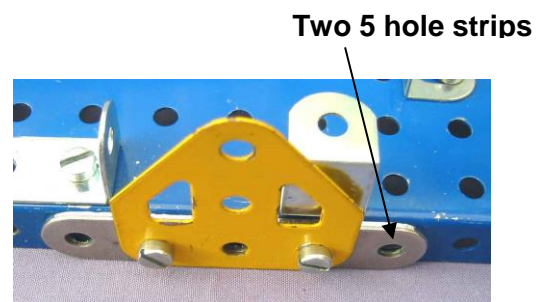
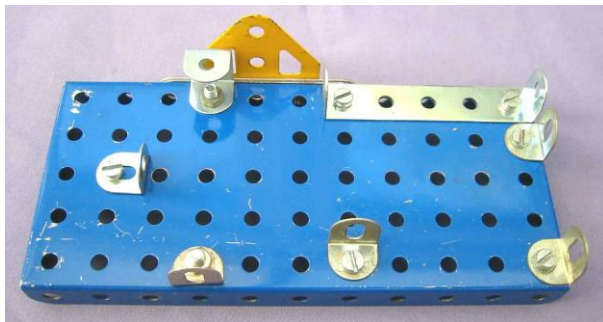
Press the crank handle spring clips slightly against the sides of the short strips to act as a brake.

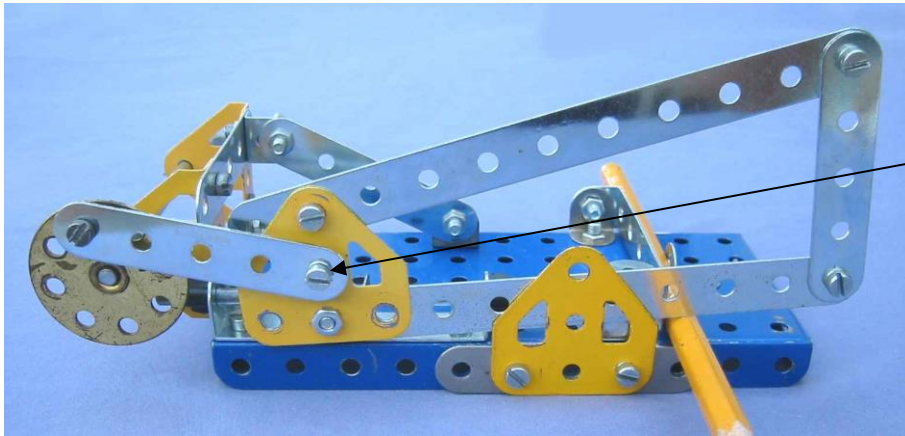
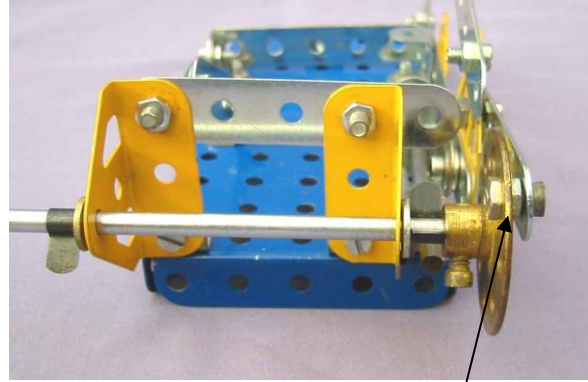
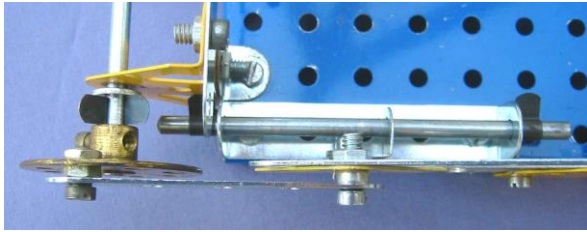
## Mechanical saw



### Parts

Strip, 11 holes	2	Nut	26
Strip, 5 holes	5	Bolt	24
Double bracket	1	Washer	2
Angle bracket	5	Double angle strip	2
Long axle	1	Flanged plate	1
Crank handle	1	Trunnion	2
Bush wheel	1	Flat trunnion	2
Spring clip	4		

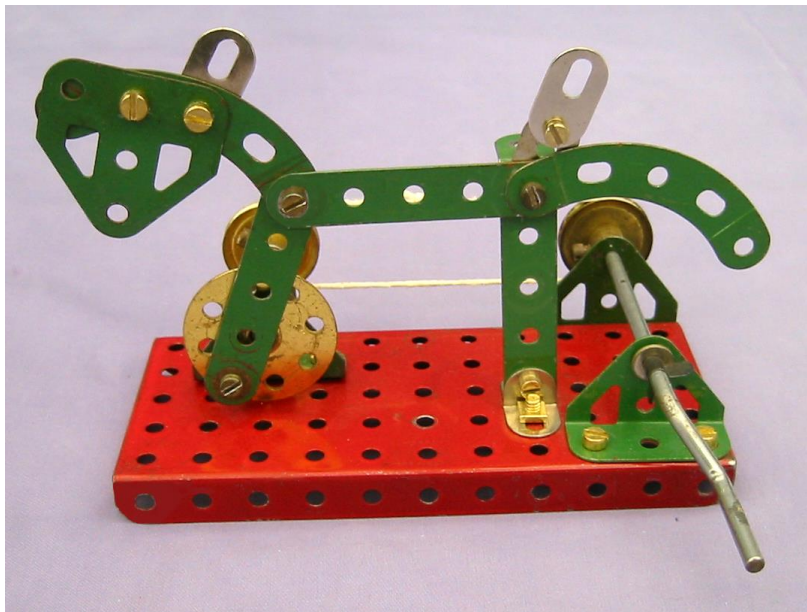




Lock nuts  
on either  
side of  
bush  
wheel and



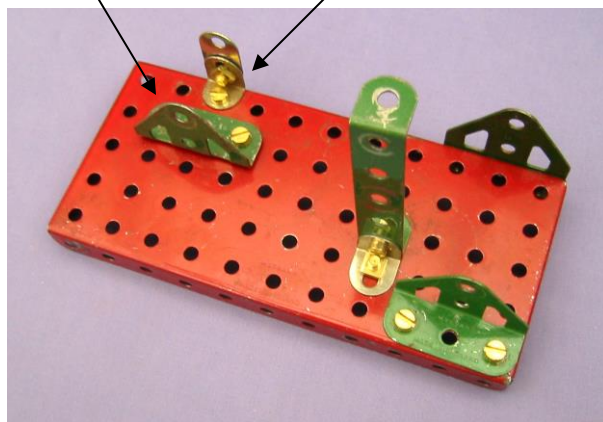
## Bucking Bronco



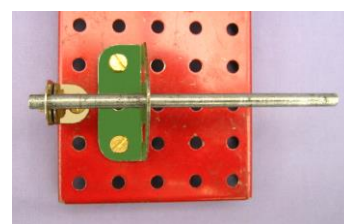
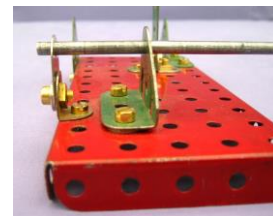
### Parts

Strip, 5 holes	2
Fishplate	4
Angle bracket	2
Short axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	1
Nut	21
Bolt	14
Washers	6
Double angle strip	1
Flanged plate	1
Curved strip	2
Long bolt	3
Trunnion	2
Flat trunnion	2

Washers under trunnion      Washer under bolt head

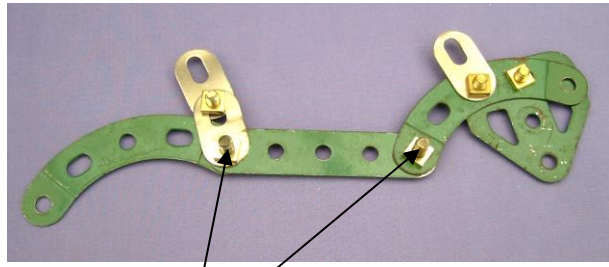


Use long axle to make sure that the fishplate is lined up before tightening well.



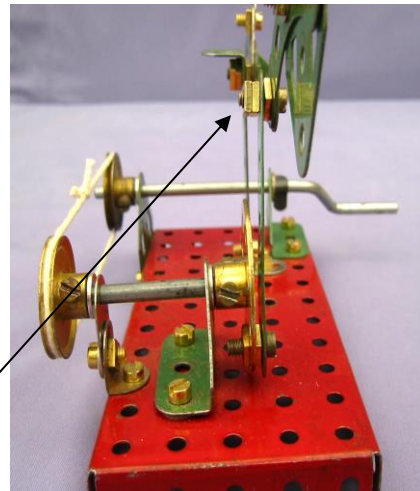
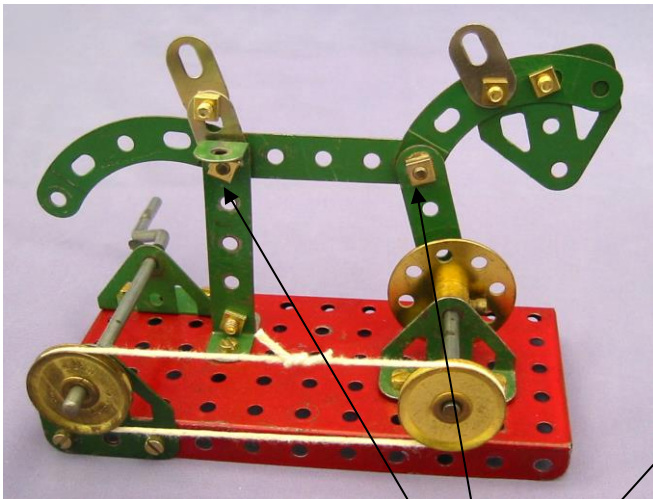
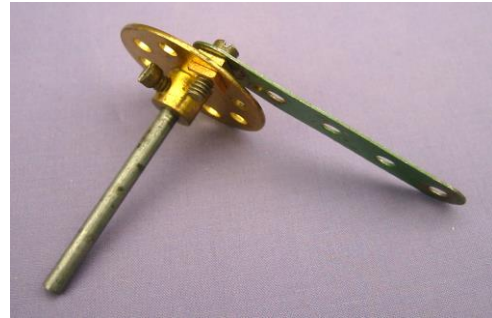
See next page

Well-tighten bolts in body.



**Long bolts**

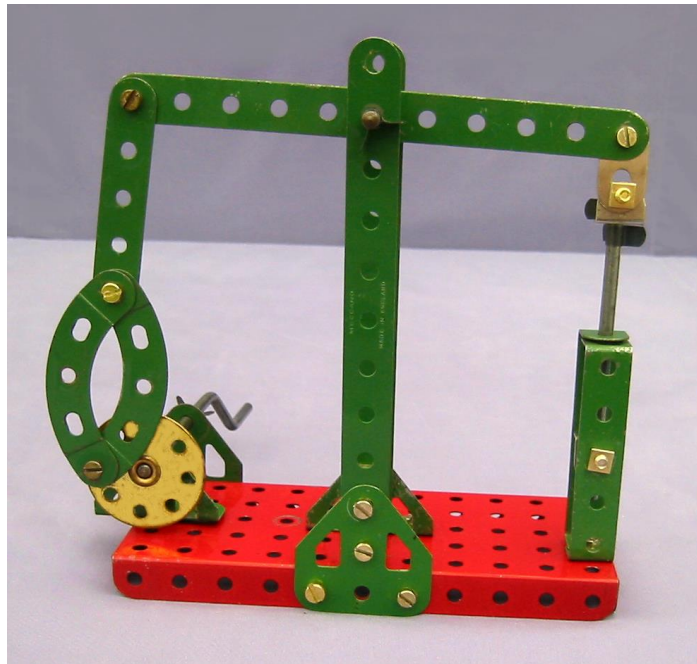
Use a long bolt to fit the front leg to the bush wheel. Lock the two nuts against the bush wheel so that the leg is free on the bolt.



**Lock nuts on  
long bolts**

Model suggested by Ellis Cory

## Beam Engine



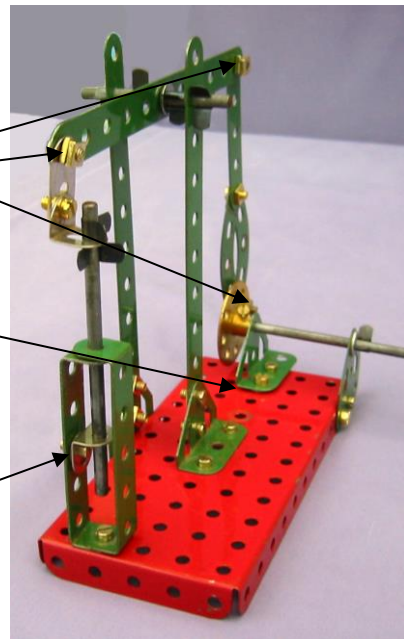
### Parts

Strip, 11 holes	3
Strip, 5 holes	1
Fishplate	1
Angle bracket	2
Long axle	1
Crank handle	1
Bush wheel	1
Spring clip	7
Nut	22
Bolt	16
Washer	6
Double angle strip	2
Flanged plate	1
Curved strip	2
Long bolt	3
Trunnion	2
Flat trunnion	2

**Long bolts  
with lock nuts**

**Washers  
under trunnion**

**Washer under  
angle bracket**

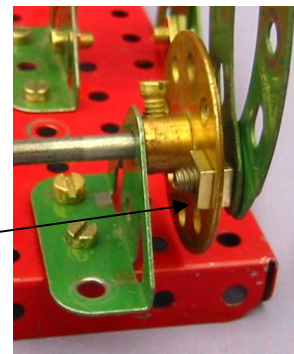


Adjust the double angle strips so that the piston runs free.

When the beam is level, the piston should be in line with the long bolt above it.

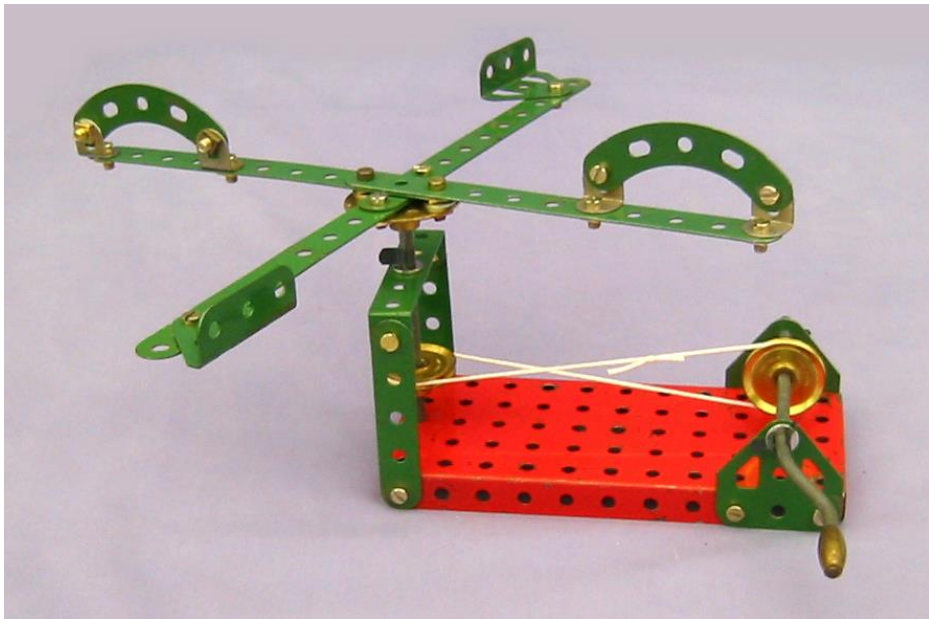
Model suggested by Ellis Cory

**Nuts locked  
on each side  
of bush wheel**





## Merry-Go-Round



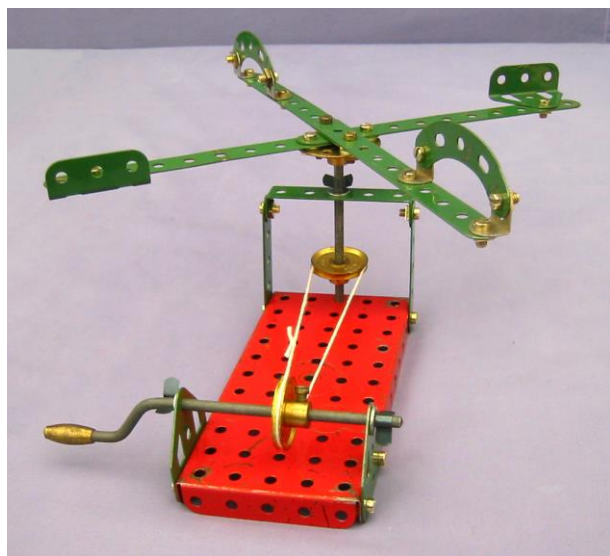
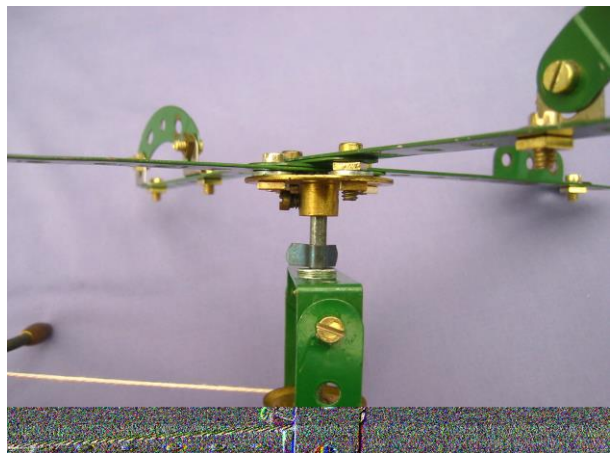
### Parts

Strip, 11 holes	4
Strip, 5 holes	2
Angle bracket	4
Long axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	3
Nut	24
Bolt	20
Washer	3
Double angle strip	1
Flanged plate	1
Curved strip	2
Long bolt	2
Trunnion	2
Flat trunnion	2

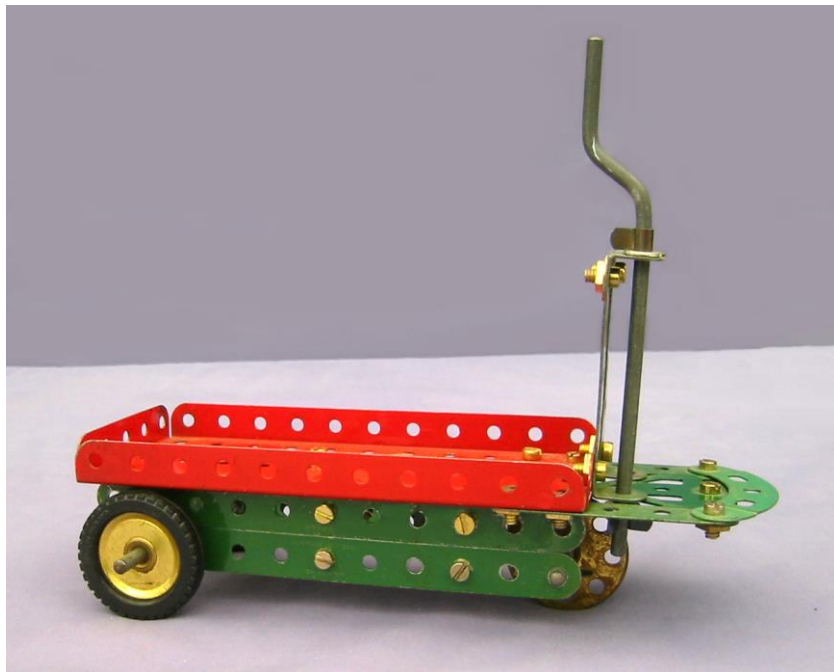
Bolt two long strips to the bush wheel with washers under.

Use long bolts to bolt another two long strips together. Add washers before bolting them to the bush wheel.

Model suggested by Ellis Cory

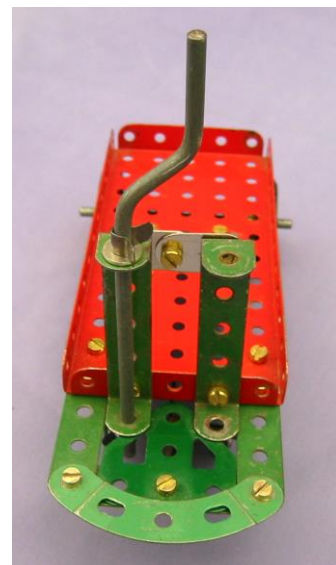
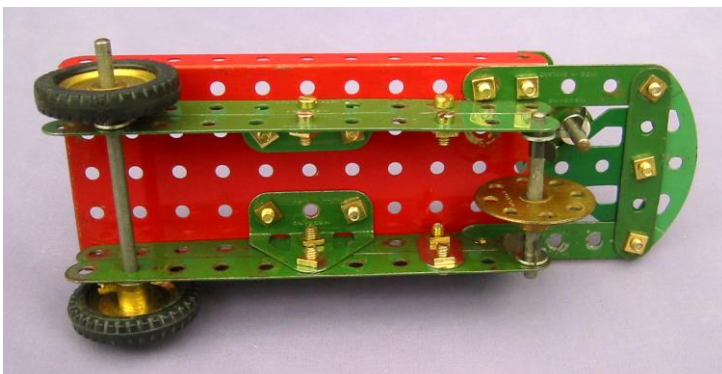


## Electric Porter's Trolley



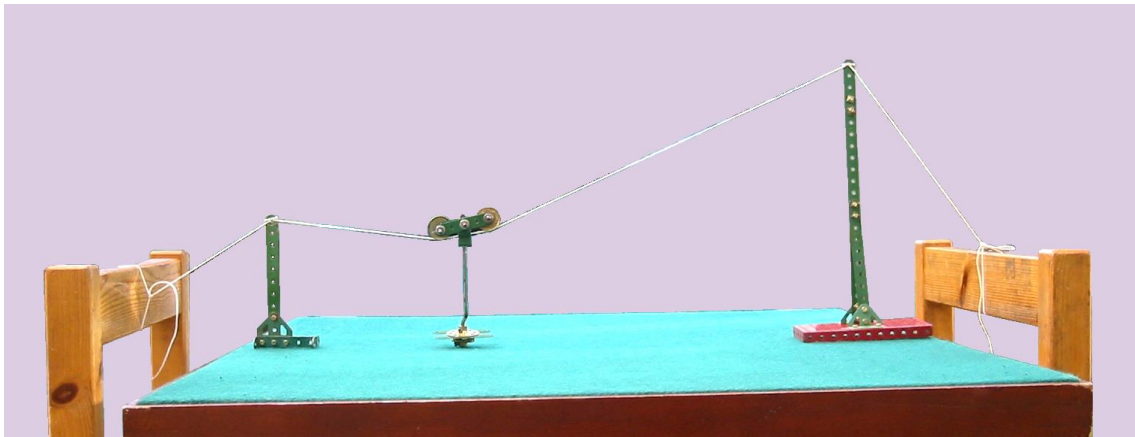
### Parts

Strip, 11 holes	4	Washer	6
Strip, 5 holes	3	Double angle strip	2
Fishplate	4	Flanged plate	1
Long axle	1	Curved strip	1
Short axle	1	Trunnion	2
Crank handle	1	Flat trunnion	1
Pulley	2	Tyre	2
Bush wheel	1		
Spring clip	4		
Nut	24		
Bolt	24		





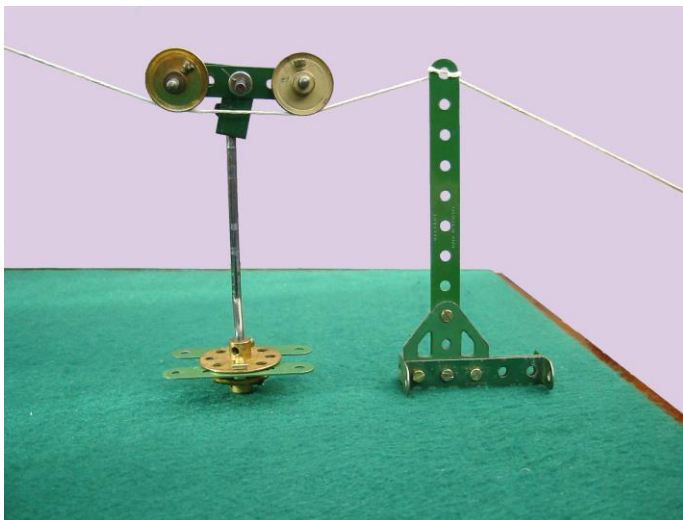
## Flying Fox



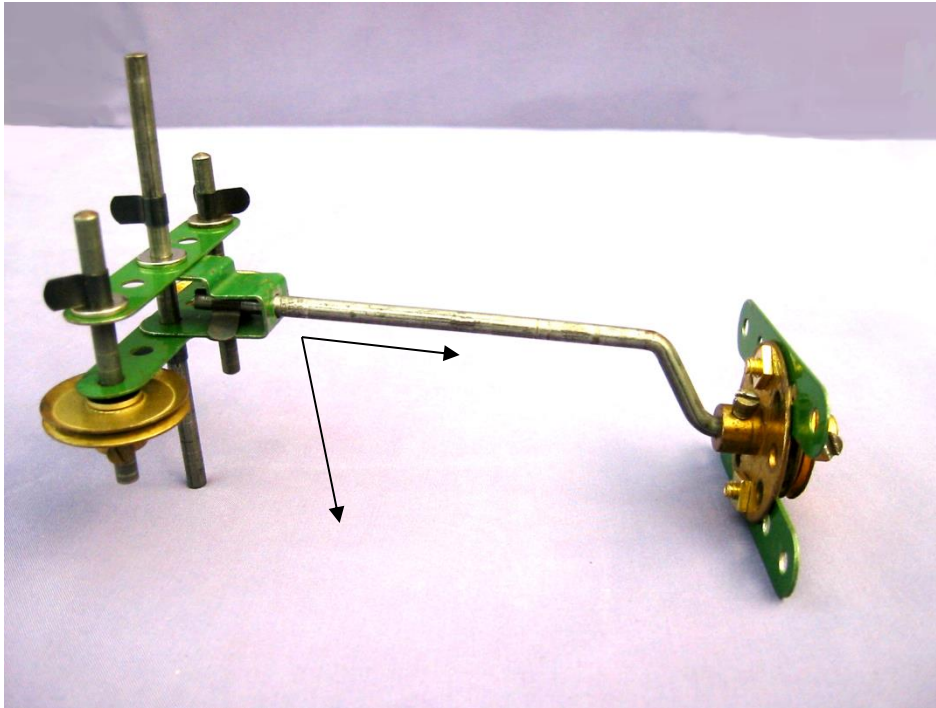
The Flying Fox runs down a cable between two towers. Two pulleys support a passenger seat.

### Parts

Strip, 11 holes	4	Nut	18
Strip, 5 holes	3	Bolt	18
Long axle	1	Washer	6
Short axle	2	Bent strip, stepped	1
Crank handle	1	Double angle strip	2
Pulley	3	Flanged plate	1
Bush wheel	1	Trunnion	2
Spring clip	5	Flat trunnion	2



See next page



The crank faces towards the pulleys to balance the seat. The spring clip holds the shaft of the crank handle at an angle.

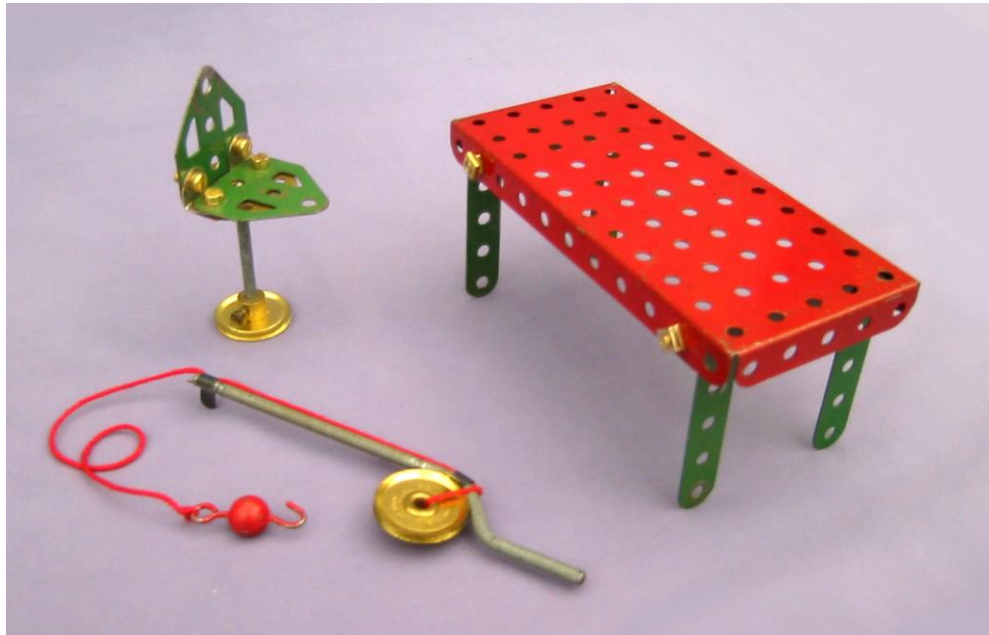


This is a useful knot that is easy to adjust. Just push a loop through the top hole of the tower and pull it over. Tie the ends of the string to two chairs. Adjust the tension by moving the chairs. Move the bases of the towers so that they stand upright.

Important. Leave some slack in the string so that the Flying Fox does not crash into the lower tower.

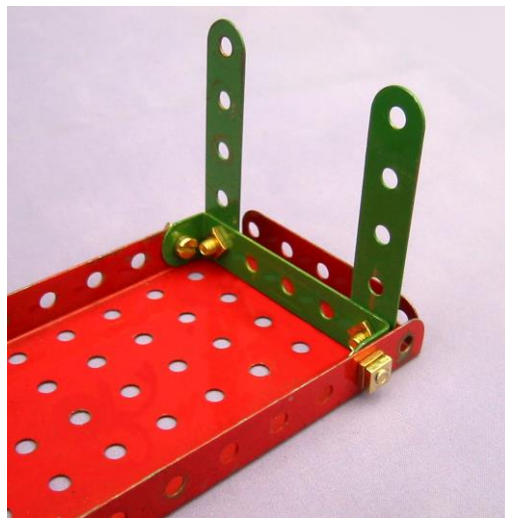
Model by Hugh. Small model competition, November 2007. Christchurch Meccano Club. NZ

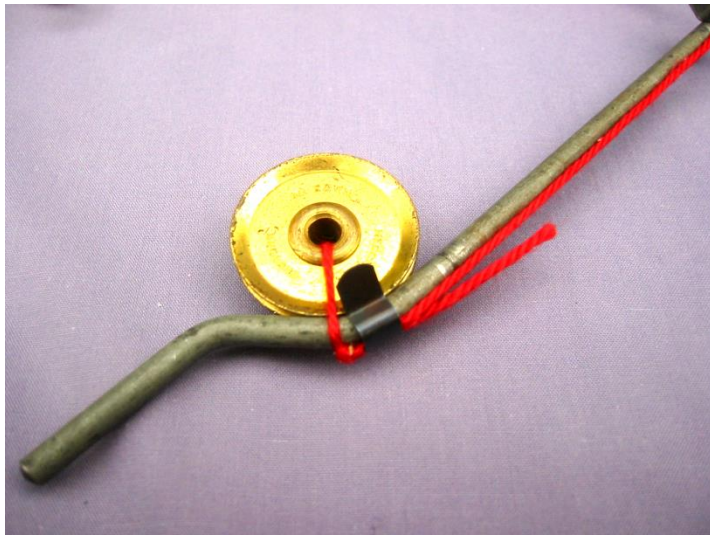
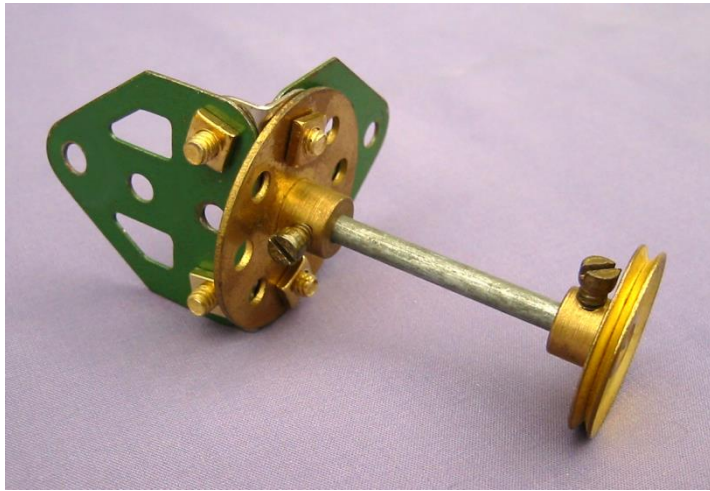
## Kiwi Camping Kit



### Parts

Strip, 5 holes	4
Angle bracket	2
Short axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	2
Nut	16
Bolt	12
Double angle strip	2
Flanged plate	1
Hook	1
Flat trunnion	2





Model by Neil and Grace. Small model competition. November 2007  
Christchurch Meccano Club. NZ

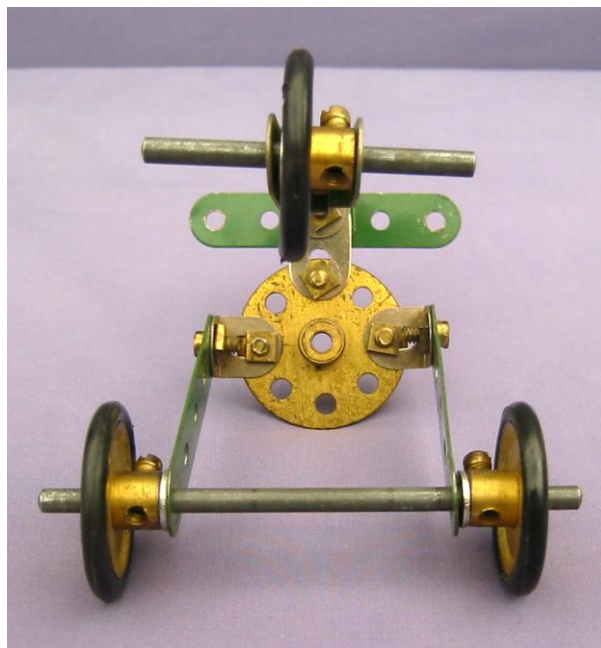


## Tricycle



### Parts

Strip, 5 holes	3
Fishplate	1
Angle bracket	3
Long axle	1
Short axle	1
Pulley	3
Bush wheel	1
Nut	9
Bolt	9
Washer	3
Bent strip, stepped	1
Double angle strip	1
Rubber ring	3



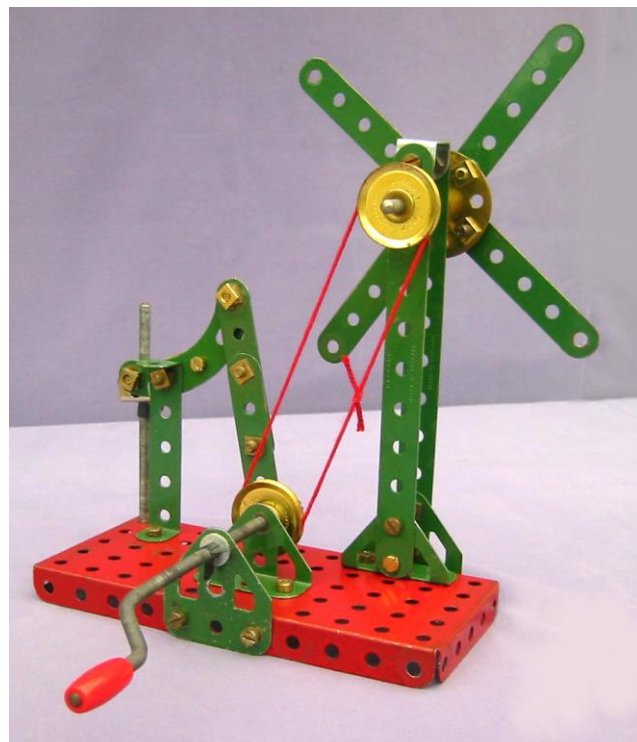
The bent strip, stepped may need to be opened up a little to allow the pulley to rotate freely. The washer inside the left side stops the rubber ring from chafing.

## Wind Pump



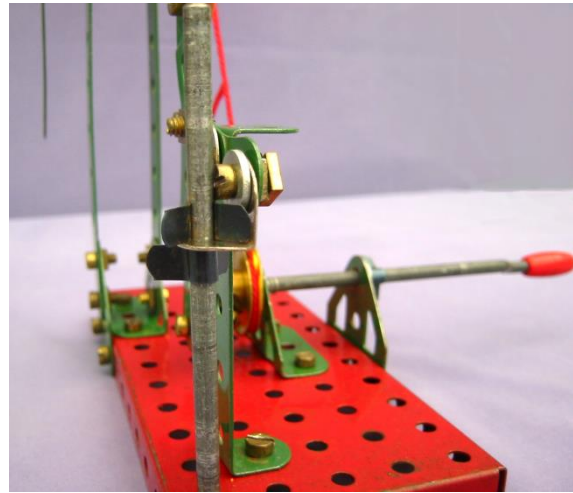
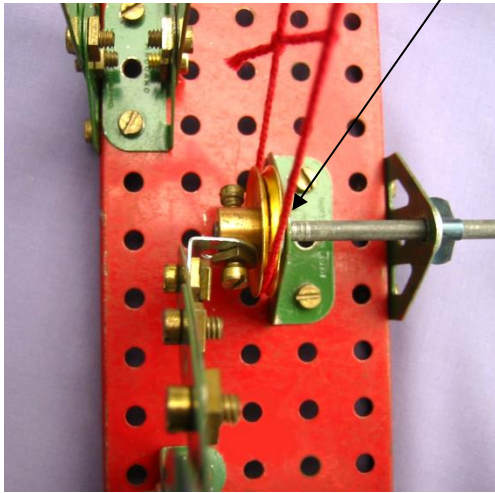
### Parts

Strip, 11 holes	4
Strip, 5 holes	2
Fishplate	1
Angle bracket	2
Long axle	1
Short axle	1
Crank handle	1
Pulley	2
Bush wheel	1
Spring clip	1
Nut	9
Bolt	20
Washer	7
Bent strip, stepped	1
Double angle strip	1
Rubber ring	3



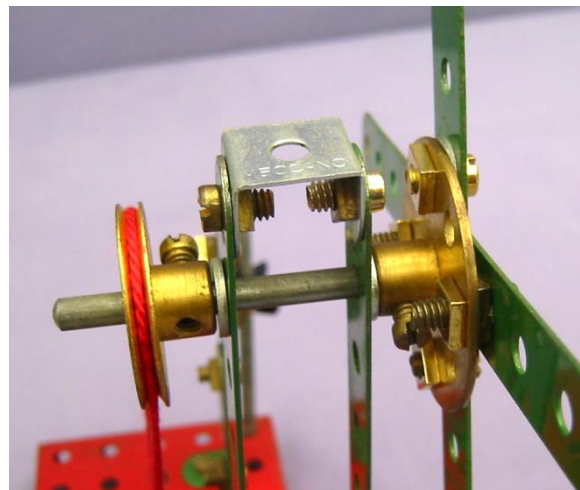
See next page

Four washers  
behind pulley



Fit a nut on a bolt and use it to fit an angle bracket to one hole in the boss of a pulley. This acts as a crank to Drive the pump.

The piston is a long axle fitted by two spring clips to an angle bracket lock nuted to a curved strip.



Bolt the first strip to the bush wheel with washers under. Fit bolts to the second strip and tighten the nuts. Then fit the strip to the bush wheel with two more nuts.

Model suggested by Ellis Cory

**Folding Ladder**

The side struts can be easily unlatched to allow the ladder to be extended. The top of the ladder then turns into a rigid rung with an elbow joint holding the two parts firmly in line. The wheels protect the wall and prevent the ladder from sliding sideways. They also make it easy to move the ladder about. The ladder folds up when not needed.

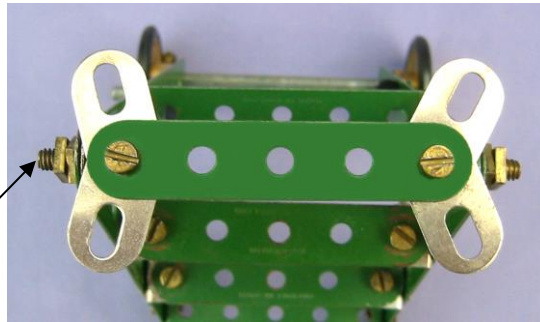
**Parts**

Strip, 11 holes	4	Nut	22
Strip, 5 holes	5	Bolt	16
Fishplate	4	Washer	2
Angle bracket	6	Double angle strip	2
Long axle	2	Long bolt	2
Pulley	2	Flat trunnion	2
Spring clip	2	Rubber ring	2

See next page



Fit two fishplates each side between the top strip and the angle brackets like this.



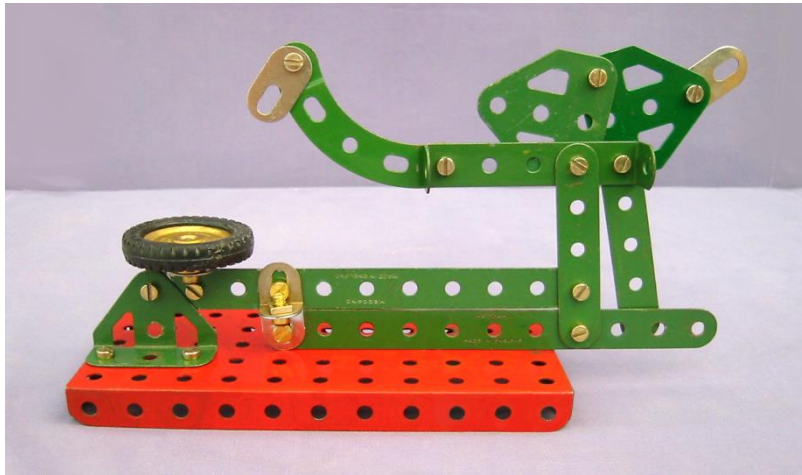
Long bolt with lock nuts

Standard bolt with lock nuts



Model by Charles, Small model competition, November 2007. Christchurch Meccano Club. NZ

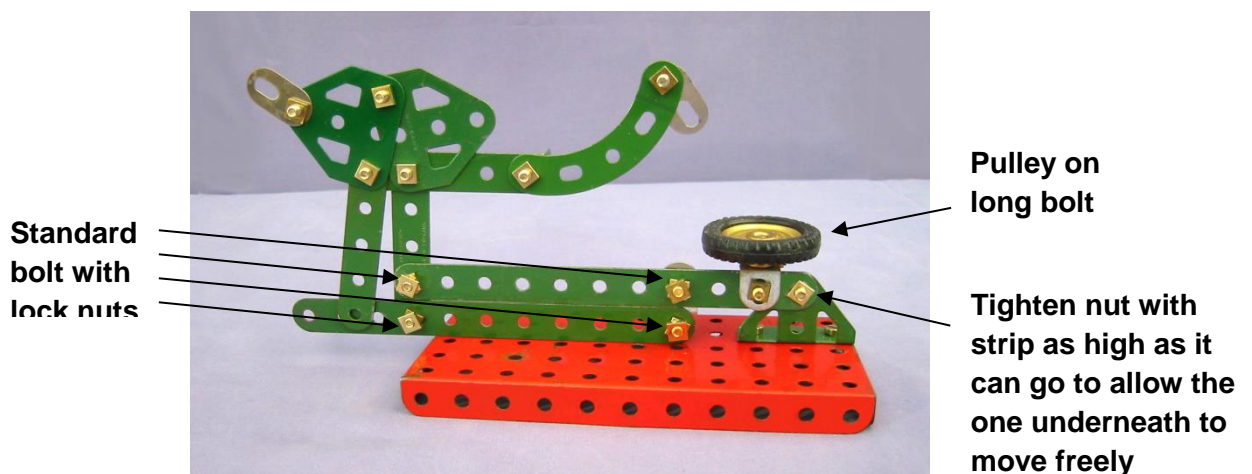
## Pecking Hen



When the lower long strip is moved backwards and forwards the hen pecks at the food dish.

### Parts

Strip, 11 holes	2
Strip, 5 holes	2
Fishplate	2
Angle bracket	3
Pulley	1
Nut	19
Bolt	15
Double angle strip	1
Flanged plate	1
Long bolt	1
Trunnion	1
Flat trunnion	2
Tyre	1



Model suggested by Ellis Cory

## Mobile Crane



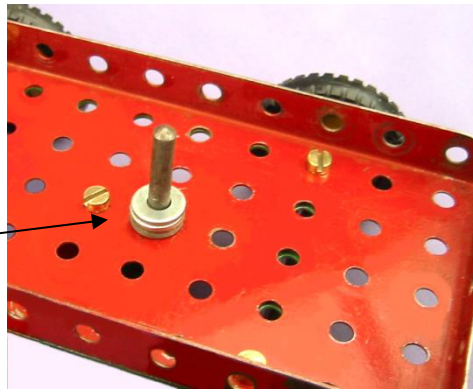
### Parts

Strip, 11 holes	4	Nut	23
Strip, 5 holes	6	Bolt	23
Double bracket	1	Washer	8
Angle bracket	4	Double angle strip	2
Long axle	2	Flanged plate	1
Short axle	2	Hook	1
Crank handle	1	Reverse angle bracket	1
Pulley	4	Flat trunnion	2
Bush wheel	1	Tyre	4
Spring clip	6		

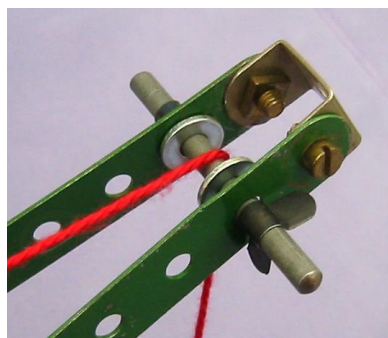
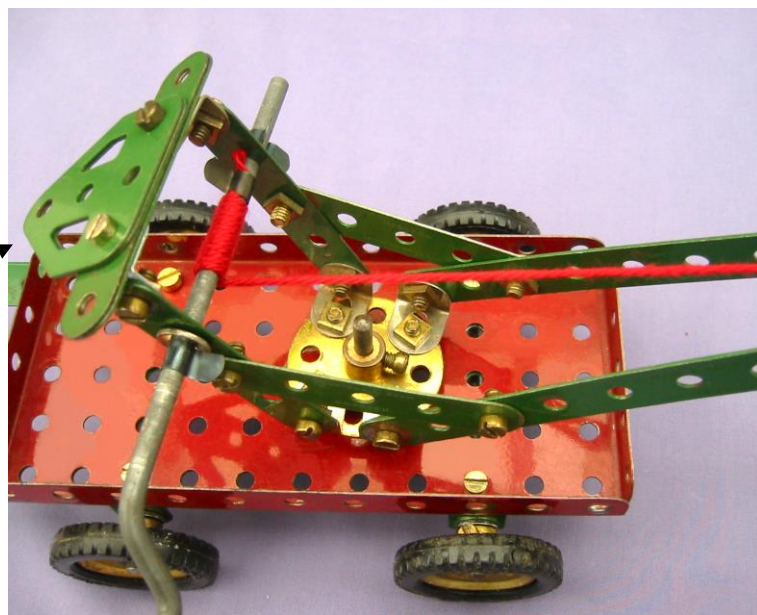


See next page

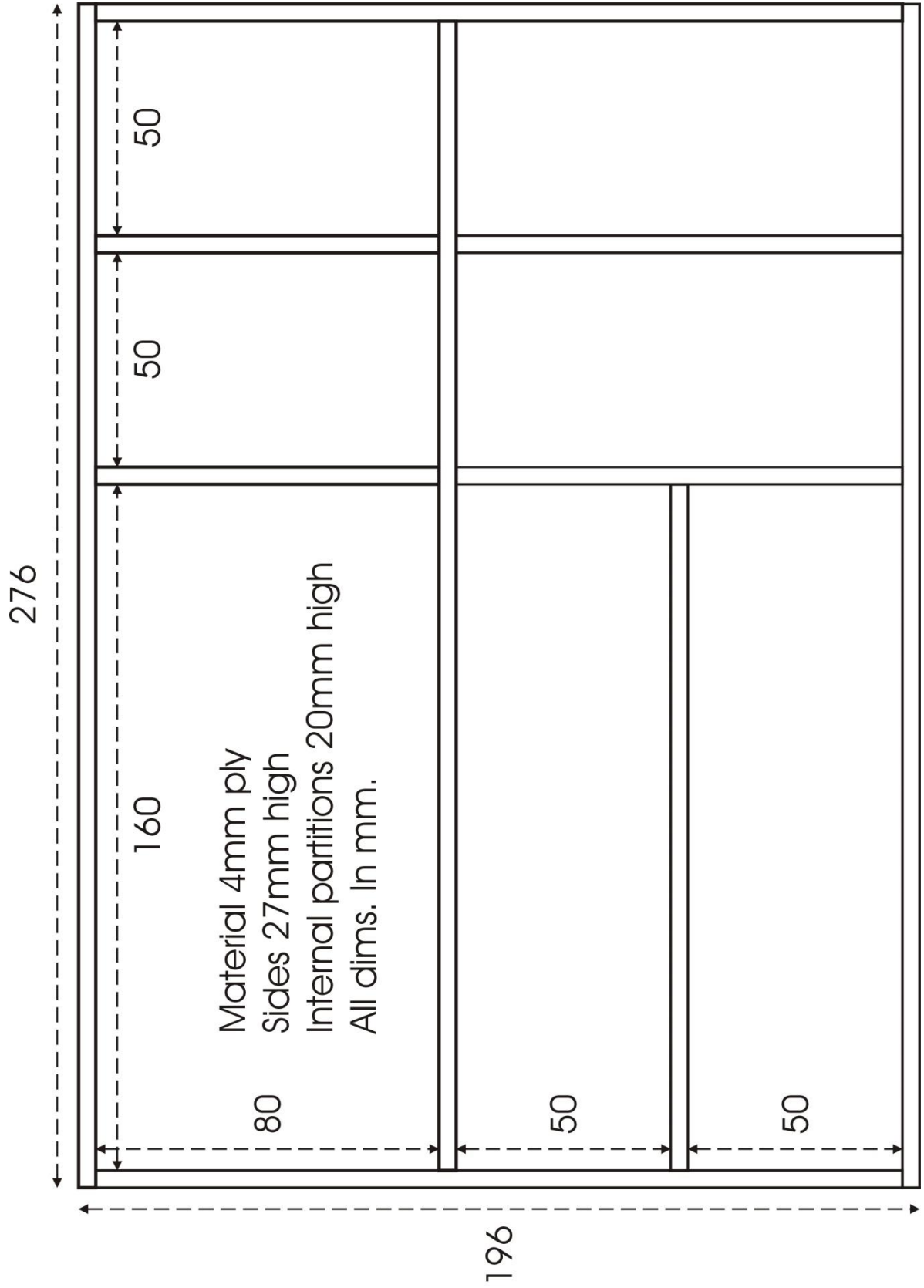
Four washers  
On short axle



This stack of two  
short strips and two  
flat trunnions acts as  
a counterbalance.



# A Suitable Box for the 00+ Set



# How the Parts fit in the box

22, 24, 52, 142c, 155	44, 48a 90a, 125	40, 57 126, 126a
2, 5	35, 37a 37b, 38 111c	10, 11, 12
16, 17, 19s, 34, 36		