SIX SIMPLE *for Christmas*

Colourful, intriguing and fun to make, these six simple traditional toys are featured in the accompanying plansheet as well as described here by David Bryant. They won't take you long to make and they are ideal last minute stocking fillers for the kids.

AT CHRISTMAS time you really can't beat wooden toys as presents to delight the children. Made well, they will outlast any modern plastic equivalents, and will probably still be around in 20 years time. The bond between parents and children is also strengthened when they know that Dad has made a special effort to make a toy for them. So here is a selection of six traditional toys which I've put together on a plansheet for you to make. I've purposely kept them simple so that you can make them as last minute stocking fillers, though a couple are rather too big to fit in. They include a Chinese tumbler, a yo-yo, a mystery ball, a balancing clown, an acrobat monkey and a peg man push-along toy car.

While the plansheet is largely self-explanatory, I should perhaps remind readers of the importance of using non-toxic materials, particularly paints, where children are concerned. This should not be a problem as most paint today sold in DIY shops meets the safety regulations, but do just check. Another point is that whilst I am sure you will all endeavour to produce well made toys, there is always the risk of small parts coming loose, and with young children this can be a hazard. With toys such as the yo-yo and the mystery ball this should not be a problem, but the balancing clown for example is less robust, so do consider who you give the toys to.

CHINESE TUMBLER

THIS is a version of the ladder toy in which a tumbling man somersaults over and over from rung to rung. It is not difficult to make but to be successful accurate setting out and construction are important. The ladder rungs must all be parallel to one another as any slope tends to make the man tumble down at an angle and lodge against one of the posts.

The one I made, shown in the picture, has six rungs, but it is probably better to make it with an odd number such as seven, as shown in the drawing. This way the Chinaman arrives at either end in an upright position.

Ladder

The ladder consists of two uprights with the rungs fitting into mortice slots, and a base fixed at either end. The ladder posts are made from 10mm (⅜in.) square section material 465mm (18⅜in.) long. Ramin or beech are suggested for these but any good close grained hardwood will do. The rungs of the same material are 9 by 3mm (⅜ by ⅛in. sq) section and these fit into mortices cut into the uprights at a pitch of 57mm (2¼in.). Mark the rung positions accurately on the uprights and drill and cut out the mortices to suit. Make sure all the rungs are of consistent thickness, but marginally over width for the 9mm holes in the Chinaman, so that they can be rounded over later with glasspaper to suit.

Next prepare the two bases which are 102 by 90 by 16mm (4 by 3½ by ⅝in.) and drill and cut the 10mm (⅜in.) square mortices to suit the ends of the ladder uprights. Fit the ladder into the top and bottom and ensure everything is square and true. Do no gluing yet until after the Chinaman is made.

Chinaman

Make the Chinaman from a piece of beech 70 by 35 by 18mm (2¾ by 1⅜ by 11/16in.) cut and prepared to suit. Mount this under a drill press and bore two parallel 9mm (⅜in.) diameter holes through as indicated, and then cut 3mm (⅛in.) wide slots in from either end to meet these. I suggest you use a piercing saw rather than a coping saw to cut these, as this way you can get in two thin cuts. It's difficult to get a chisel in to clean up afterwards, and I found a 3mm thick engineers' file was quite a good method of doing this though it is not really the right tool for the job. Check the slots fit closely but not too loosely over the rungs or else the man will tend to rattle down.

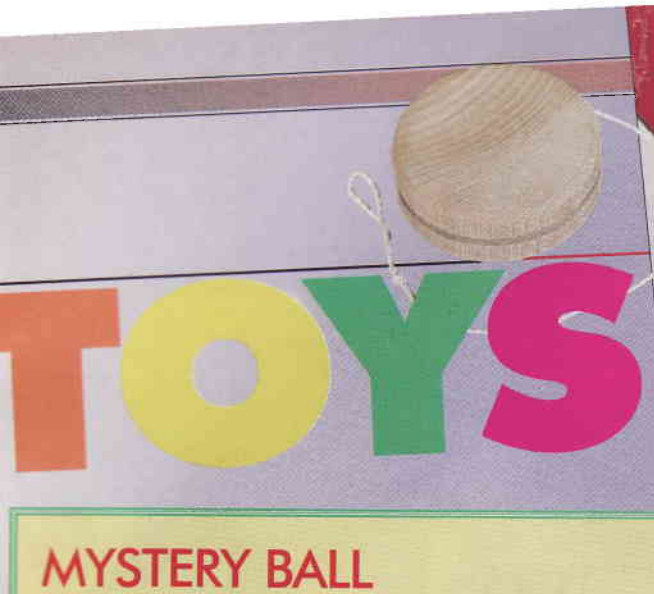
Assembly

Assemble the ladder and rungs and check the Chinaman tumbles down smoothly, rounding over the rungs locally to assist this. Then glue the ladder together mounted onto the bases at either end, remembering to ensure the Chinaman is on the ladder before fixing the latter. With regard to finish I prefer a clear varnished ladder and the Chinaman can be painted to suit, ideally before mounting. You can paint the ladder if you wish but make sure the additional thickness of the doesn't stop the Chinaman from tumbling down.

MATERIALS

Side supports	2 off	465 by 10mm sq.	(18⅜ by ⅜in. sq.)	ramin
Rungs	7 off	60 by 9 by 3mm	(2⅜ by ⅜ by ⅛in.)	ramin
Base	2 off	100 by 88 by 16mm	(4 by 3⅜ by ⅝in.)	beech
Chinaman	1 off	70 by 35 by 18mm	(2¾ by 1⅜ by 11/16in.)	beech

TOYS



MYSTERY BALL

ANOTHER traditional toy that always fascinates is the mystery ball, which slides up and down a piece of string, but will stop anywhere at your command apparently defying gravity. It's another simple toy to make, and it depends for its action on a kinked hole through the middle where the string passes through. When the string is pulled tight the ball will lock in position, but when the tension is released it will slide down.

You can of course buy wooden balls and these are generally available up to 75mm (3in.) diameter, but better still you can show your skill by turning one from pine. A ball about 60mm (2⅜in.) diameter is probably about the right size. I had a small perspex pattern conveniently to hand to check the shape, but you can manage quite easily with a pair of callipers to check the circularity. Again it's best made on a combination chuck rather than between centres, because this then gives you free access around most of the ball.

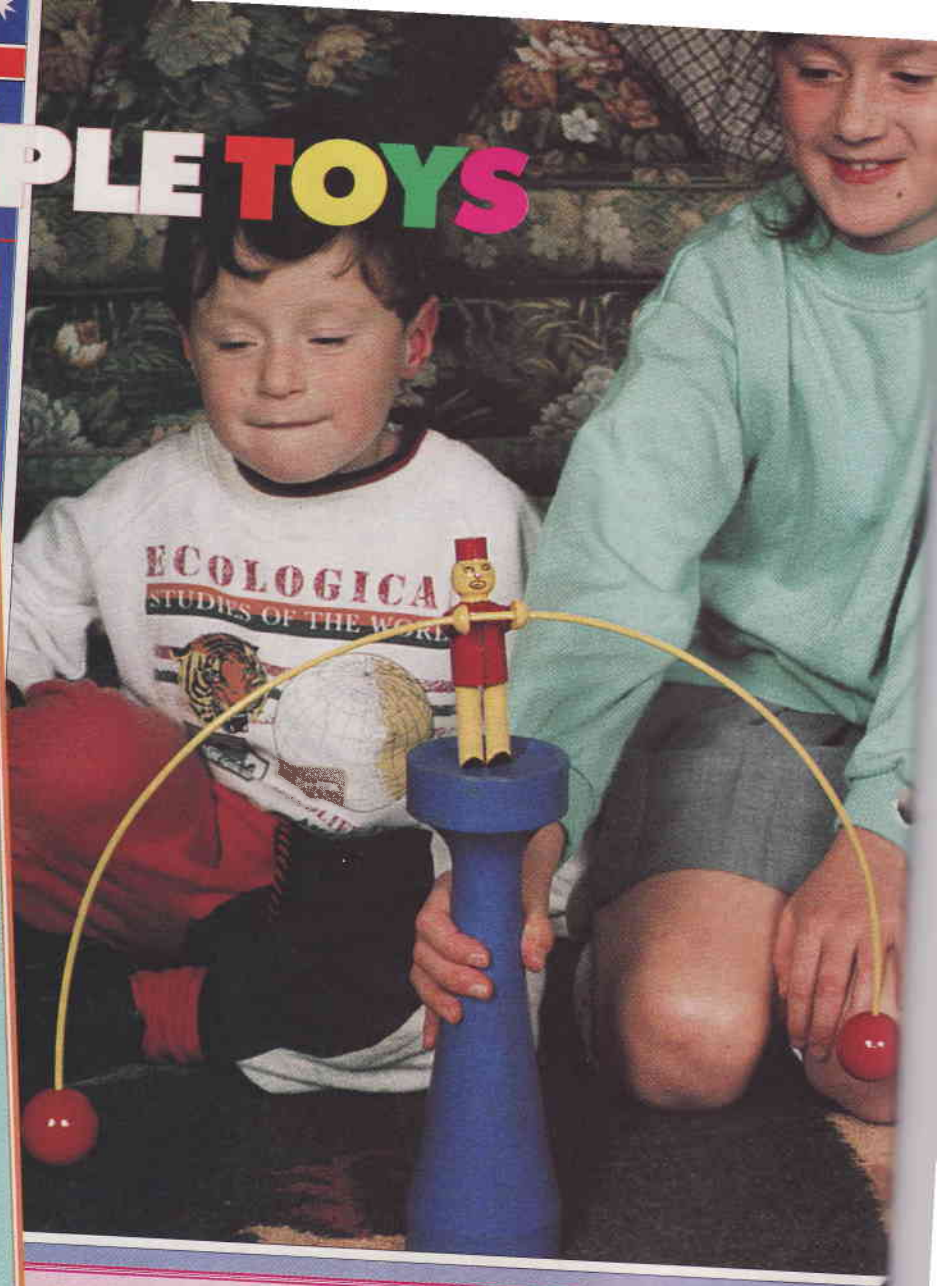
Drilling the kinked hole is not as difficult as is sounds. First drill a 3mm or 4mm hole right through the middle of the ball. Then pass a 3mm steel rod through and set this up under the drill press so that it is aligned with the twist drill but tilted over slightly. Leaving the steel rod in place, drill down until you feel the hole through the centre meets this. Afterwards plug one end of the hole through the centre as indicated on the drawing. To thread up the cord pass a length of thin fuse wire through the kinked hole, bind the end to the string and then pull this through. Use thick white string and knot this with a finger loop at each end so that it cannot slip through the ball. If the kinked hole does not grip the ball properly you could uncover the end of the sealed hole and feed a longer length of dowel down to the middle to act as a friction break, though this really should not be necessary. Paint the ball in a bright colour such as red, yellow, green or blue.

SIX SIMPLE TOYS

CONTINUED

YO-YO

NOW here's a really simple stocking filler which children love to play with, and all you need is a length of 65mm (2½in.) square section timber. You can either make one of a hardwood such as beech, elm or cherry, or you can use a softwood such as pine if it is intended to paint it. There are two ways of making them — either from separate discs of wood with a wood dowel axle fixed across the middle or machined from the solid. The first method is more finicky, and it is much easier to machine them whole. You can either turn them up between centres or, better still, turn a spigot at one end and mount the wood block on a combination chuck. This way you can get at one of the side faces more easily to clean this up. If you mount a good length of timber you can machine three or four yo-yos at one go, and part them off one at a time. Two points to note are first to check the wood grain is through the yo-yo axis to make the axle strong, and secondly to have a fairly narrow gap in the middle (4mm) where the thread is secured. Yo-yos have a tendency to bind occasionally on the side walls, and by making the gap narrow this will largely alleviate the problem. The best cord to use is a thin string doubled up with a slip knot end over the yo-yo axle, and a finger loop tie at the top. Finish the hardwood ones off with sanding sealer and friction polish, and paint the softwood ones in plain distinctive colours such as red, yellow, green or blue.



PUSH ALONG TOY

THE push along toy is a pegman car which can be made from either hardwood or softwood. First make the body from a piece of wood 180 by 80mm by 32mm (7⅛ by 3¼ by 1¼in.) and round over the front and back edges as shown. Then drill four 32mm (1¼in.) holes for the pegmen and clean the body up ready for painting. Sawtooth drills are ideal for the pegmen holes as they give a nice clean cut.

Next make the wheels and the pegmen turning these using a combination chuck. Make the wheels from a piece of square section beech and drill and part these off one at a time. The wheels are 38mm (1½in.) diameter and are fixed using No. 8 round or cheese head screws. I found it useful to put a washer between the car body and the wheels to keep the latter freely spinning. Machine the pegmen in a similar way so that they are a loose fit in the holes drilled in the car body. Make a pair at a time and part off each one in turn. Finish the car off by making a wooden bonnet as indicated from scrap material and glue fix this on. Add a pair of short clout head nails to form the headlights. Lastly paint the car in bright colours to personal choice. I chose yellow for the body with red wheels, and made the pegmen multi-coloured. When the gloss paint has dried, fix on the wheels and you're ready for the off!

MATERIALS

Body	1 off	180 by 80 by 32mm (7⅛ by 3¼ by 1¼in.)	softwood
Wheels	4 off	100 by 42mm sq. (4 by 1⅝in. sq.)	beech
Bonnet	1 off	80 by 60 by 12mm (3¼ by 2⅜ by ½in.)	softwood
Pegmen	4 off	80 by 38mm sq. (3¼ by 1½in. sq.)	beech

BALANCING CLOWN

BALANCING toys come in all sorts of shapes and sizes. The one here is a clown standing on top of a tall post and, when gently pushed, he will bob about as though on a high wire.

Support post

Begin by making the support post, turning this from a length of 75mm (3in.) square section pine mounted between centres. Turn a parallel section either end and then taper down the middle part towards the top as indicated in the drawing. Finish the post by turning a small recess in the top where the clown will stand, and put a decorative groove in each of the parallel sections. As an alternative, a simpler construction is to turn two 22mm (⅞in.) thick end discs to the diameter shown, and connect these with a 13mm (½in.) dowel post.

Clown

The clown is made up from pieces of hardwood as shown in the drawing. The body is turned from a length of 32mm (1¼in.) square section timber mounted between centres. The two legs are machined from a length of smaller section timber, and fitted into holes drilled in the body piece. The arms are similarly turned from a short piece of hardwood, and this is then cut down the middle with a piercing saw to make the pair. These are then cleaned up and fitted to the body sides which are locally flattened to suit. At this stage drill 3mm (⅛in.) diameter holes in the hand positions and 5mm (³⁄₁₆in.) diameter holes at the shoulder ends. Make small taper pegs to fix the arms to the body and then glue the arms on.

Balance wire

The clown is balanced by a wire hoop which passes through the clown's hands with a balance weight placed on either end. I have tried using cane hoops but found the arrangement rather too flexible and prone to breakage. A length of 3mm (⅛in.) diameter steel wire is bent to a 200mm (8in.) radius, and locally straightened where it passes through the hand holes. For the balance weights two 35mm (1⅜in.) diameter wooden balls can either be purchased or turned to suit, and these are glue fixed onto the ends of the wire hoop. To balance the clown, gently rotate the wire hoop back and forth and when the balance is right, fix this with a spot of super glue applied to the hand holes. Finally paint the clown, wire hoop and post in bright decorative colours to personal choice.

MATERIALS

Support post	1 off	280 by 75mm sq.	(11 by 3in. sq.)	softwood
Body	1 off	88 by 32mm sq.	(3½ by 1¼in. sq.)	beech
Legs	2 off	100 by 10mm dia.	(4 by ³⁄₈in.)	beech
Arm	1 off	60 by 16mm sq.	(2⅜ by ⅝in. sq.)	beech
Balance wire	1 off	630 by 3mm dia.	(25 by ⅛in. dia.)	steel
Balance weight	2 off	35mm dia.	(1⅜in. dia.)	softwood

ACROBATIC MONKEY

THIS popular little hand-held toy is addictive and will amuse for hours. By squeezing the two posts at the bottom, the monkey can be made to somersault over back and forth. It can even be made to balance across the top.

Start by making the pieces for the monkey. The body is from 6mm (¼in.) thick material and the arms and legs are 3mm (⅛in.) thick. Use a hardwood such as beech for these, as softwood is not really suitable. On the plansheet I've shown the patterns on a 10mm square grid to make it easy for you to transfer this to the wood. I cut these out using a Hobby's A1 fretsaw, a great little machine which I much prefer to modern day motor driven equivalents.

The hand frame to support the monkey consists of two uprights 270 by 20 by 10mm (10⅝ by ¾ by ⅜in.), with a cross bar 50 by 20 by 13mm (2 by ¾ by ½in.) fixed between these, held with two pin nails on either side. The middle piece should have slightly radiused ends so that the uprights can rock slightly when hand pressure is applied.

The monkey is assembled by first tying on the arms and legs and sealing the knot ends with melted wax. The string attachment to the posts is through paired holes in the arms and posts with a string cross either side of the arms. Don't drill the holes too close together either in the ends of the arms or the posts, as this makes it more difficult to make the monkey somersault. To space the arms apart a bit, either put a small strip of wood across the ends or alternatively thread short pieces of small bore polythene tube onto the string between the arms. This also makes the toy function better since it limits the space for the string crosses. With regard to finish I chose yellow for the posts and brown for the monkey with black hands and feet and facial features.