

# Patterns provided on Cover iii for this realistic MODEL PISTOL

THE illustration is of an excellent and realistic pistol in wood, which can be made reasonably easily from the full size patterns shown on Cover iii of this issue. The suggestion was submitted by one of our readers, A. Hanby of Dumfries, who has, he tells us, made up several of these for his young friends, to their constant delight.

The completed model is 9ins. long and has a realistic imitation action of firing, although of course, it does not actually do so. The hammer is pulled back and clicks into place on cock by means of a piece of clock spring or similar steel, inside. When the trigger is pressed, it jumps forward with another realistic action.

#### **To Fire Caps**

The model will, indeed, fire caps if you are able to obtain them, and

for this purpose a wide headed tack is fitted to the end of the hammer and to a corresponding position in the breech.

The whole thing is made from odd pieces of wood in., in. and 3/16in. and as it is finally painted jet black, any odd pieces of material will serve. The hammer and trigger are best cut out from plywood if you have an odd piece; in any case, the wood should be hardwood to stand up to the action of firing.

The work of cutting the parts is straightforward, and the patterns themselves can be either pasted down to the proper wood, or traced on direct to that material. The latter is probably preferable because you will still then have the patterns to which to refer for shaping and position of adjoining parts.

You can, of course, mark the shapes on to the wood by putting a piece of carbon paper between the pattern and the board, or you can trace them off on a piece of tracing paper, turn it over and redraw direct to the board to be cut.

The various outlines are cut out with a fretsaw and then the shaping can be done with file and glasspaper. The barrel can be rounded, or if you prefer, the four corners chamfered off. The end of the barrel has a jin. hole bored in it, but this need only be jin. or so into the wood, as it is purely to look at.

#### Barrel Finish

Notice on the pattern of this part the end view shown shaded. The barrel itself is rounded in its length, but the projecting piece at the top

This realistic working model is 9 ins. long, and easily made from patterns provided.

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has the foresight tapered to a point as shown.

The stock plates which are added to the handle finally, can be best shaped when the rest of the work is finished. They are rounded off to form a comfortable grip. The cylinder plates, however, must be rounded before fixing to the main portion.

#### **Imitation** Magazine

When finally glued on each side of the main body—in the position shown by the dotted lines—they should assume a circular effect being in actual fact the chamber to hold the bullets. A little groove is cut down into each cylinder plate to the shape shown on the design. This is gouged out to form a recess commencing two-thirds of the way down, and then coming out at the end to the depth shown by the shaded portion next to the pattern.

Apart from the actual wood, you will, of course, require two pieces of spring steel. If you can get a clock spring this is ideal. The actual size and length are shown with the patterns. Four little washers are also required, which can be either of metal or card. They are fixed as shown to allow easy movement for the hammer and trigger.

Panel pins should be used to form the pivots for these parts, or long straight nails can be put in instead. They can be driven right through the parts concerned, with the projecting

pieces nipped or filed off

later.

If you are using the pistol to fire caps, two largeheaded tacks must be driven in to form the necessary contact. One is in the head of the hammer (see outline on pat-

tern) and the other in the barrel portion where a recess is shown on the design part. Drive the tacks in carefully so as not to split the wood.

#### Assembly Sequence

When the parts are cut and shaped properly, be careful to follow the assembly and to test out the moving

## Record Blade Sharpener

HARPENERS for safety razor blades can be made from old gramophone records—at least, you will be able to make one sharpener from each record, such as 10in. discs. The shape of the sharpener is shown, this being cut out with a metal-cutting fretsaw blade, although the usual fine fretsaw blade could be tried.

You need the plain "heart" of the record, for this surface is used for "stropping" the blades. If blunted slightly, i.e., if a blade has been used for shaving several times, it is first rubbed gently, in a circular motion, on the "track" end of the sharpener, this action removing most of the "burr" on the blade cutting edges, following which the blade is rubbed



on the plain surface, this giving the finishing touch to the blade.

However, before you can do so, the sharpener must be bent concave in the centre. To do so effectively, place the portion of record in a bath of warm water and, when the material becomes plastic, bend it to shape with the fingers. It is a good idea to bend the material over the side of a large mug. There must be a slight curvature not a deep one for the edges of the blades would thus be likely to "cut" up the surface of the record, particularly the tracking lines or sound grooves.

Now, it should be stated that the centre of most records are indented slightly where the label is adhered. This is not wanted. Choose a record that has no indentation, such as a Columbia record. You will likely find that the label is easily peeled off after having been immersed in the hot water.

#### In Use

Do not bother about the opposite side of the piece of record as this is not used. The concave curvature enables the cutting edges of the razor blades only to be touched. A slight pressure, with the fore-finger, is all that is necessary.

Naturally, the record material is not as good as a bakelite material, but the record provides you with grooved "honing" lines. The idea of this sharpener is based on the old dodge of using the inside of a drinking tumbler or glass. In fact, after rubbing the blade on the sharpener, it could be "toned up" by rubbing it in the glass.

When using the record sharpener, it could be dipped in cold water to lubricate the movement of the blade. parts during construction. The 1/16in. holes for the hammer and trigger should be bored before the cutting out. A piece of wire can be used if you prefer instead of the nail, but it should, of course, be the same diameter as the hole.

Press lin. of wire so that it projects



through the hammer and trigger each side. Then attach the butt to the righthand side frame with glue and small nails if you think fit. Fit the hammer in position and lay the barrel on the frame so the hammer works easily, then glue and nail the barrel and frame.

Next put the hammer in the cocked position, and lay the trigger so that the gear engages with the notch in the hammer itself. This can be seen in the cutaway constructional view which is quite helpful to follow.

#### Spring Fitting

Make sure you have the right position, then tap the trigger spindle to give the position for the hole, and holding both frame sides together, bore a 1/16in. hole for the trigger spindle. Fit the springs into slots so they engage with the hammer and trigger as shown, remembering to put the washers on each side of both these parts.

Then fit the lefthand frame side and see it balances with the righthand side. This action must be finished by hand, and it may be necessary to glasspaper the trigger where it engages with the notch in the hammer to get the required effect.

Having obtained satisfactory action, glue and nail the lefthand side frame. Then fit on the cylinder pieces, trigger guard and stock plates with nails.

#### **Helpful Hints**

You will be wise to bore all holes with a fretwork drill or a small bit, to save splitting, and of course, screws may be used if you wish, for preference. The nails must not, be put into the handle until the finished shape has been obtained.

Give the whole thing a final rubbing with glasspaper, and then colour all the parts with a black leather dye or Hobbies Blackboard Black. A semiglossy surface, can be obtained by using black boot polish.

### The bird lover should make these attractive GARDEN HOUSES BIRD



Fig. 1-A pole type of house

ERY attractive bird houses for standing up in the garden or on a bit of green lawn, or again for hanging on a fence can be made from a few pieces of odd wood.

The details for the house shown in Fig. 1 are given in the sectional view and the view showing the simple construction in Fig. 3.

Here also is shown the method of fixing the house to the post by means of two iron angle brackets. We are going to assume that in the making of these houses only rough narrow battens are available, stuff about 3ins. wide and kin. or kin. thick too.

Looking at the cross section of the house in Fig. 3 we see the ends or gables are each made of two pieces about 7ins. long and 3ins. wide, and they are held together by a cross batten at the foot and a triangular piece at the top or peak, all securely nailed.

#### The Sides

A hole about 2<sup>1</sup>/<sub>2</sub>ins. in diameter is cut with the fretsaw after the section has been nailed together. A view of one of the sides is shown, and each consists of three pieces about 43ins.

long and 3ins. wide. Two lin. wide laths cut as shown are nailed on to hold these pieces together and the top edge is cleaned off to a rough chamfer to allow the roof pieces to sit more or less evenly along their edges. Make up two sides as shown and then nail the gables between them. The floor, consisting of two pieces of stuff 3ins. wide is nailed in afterwards.

When all five pieces of the house are nailed up and made firm the roof may be added. This may consist of flat, wide, rustic cut-offs, or may be branch wood about 2ins. in diameter, perhaps cut through longitudinally and simply nailed on.



Fig. 2-A hanging house for walls

The pieces should be lapped together at the ridge and afterwards covered with a strip of roofing felt or Ruberoid about 2ins. wide as shown in the section of the house in Fig. 3.

#### Roofing

Ordinary builder's cut roofing laths which are generally about lin. wide and 3/16in. to tin. thick are admirable as fillets for holding the various sections of the house together, and they can be readily cut through with the fretsaw or tenon saw.

If the house is to be fixed to a post as shown then it would be best to screw the angle plates to the post first and then, after marking a line on the bottom of the floor of the house, to set the latter on the plates to this line and run the screws in.

If the natural bark covering of the

roof members has been stripped off, then it will be necessary to coat the wood with some sort of preservative. The outside walls of the house, too, would be best coated with a preservative.

Little need be said about the construction of the second house shown in Fig. 2. The details for this house are given in Fig. 4. An ordinary lean-to roof is best here, and the covering is the same as for the previous house, or it could, of course, consist wholly of felt or Ruberoid upon a rough backing of lath wood.

The two ends of the house are again made in narrow stuff and held with laths. The back and front are again built up in three

pieces each, all very much as before. You can utilize whatever narrow boards you happen to have, providing you stiffen them up with cross pieces. These can be plainly seen in the

second drawing in Fig 4, and must be

added whilst the house is being built.

#### Fixing the House

The ends are nailed on to the front and back and the floor let in and nailed firmly to the back and front. Two cut wooden brackets as A are screwed through to the floor before the roofing material is put on, or the house could be supported on iron brackets as B, a block of wood being added under the floor as a filling before the bracket is put on.

A piece of felt should be dressed over the ridge of the roof where it meets the back of the house. Two screwing plates should be put in the end uprights of the house to



Fig. 4-Three details of construction and fixing of wallhouse

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## Save your coupons by making these comfortable ROPE SANDALS SIMPLE

S it is important nowadays to save our boots and shoes as much as possible, why not make a pair of rope sandals? You can make a useful pair of such sandals from a few yards of suitable rope and a few pieces of canvas, that will give good service and save leather and what is important, cost no coupons.

For sewing the rope to make the soles, a strong waxed thread will be needed, with a small sacking needle. Double the thread when pushing it through the eye of the needle and tie the ends together, this will make it four thicknesses.

#### Wax for Strength

Wax it by drawing it across a piece of cobbler's or beeswax, or even candle. A good plan is to get a local boot repairer to wax a few lengths of hemp thread ready for you and so save trouble.

Mark the size of the soles required by laying an old boot or shoe on paper and drawing a pencil round it. Then take the rope, double about 3 to 4ins., according to the size of the sole and sew together.

Carry the rope down and round again to the heel portion, inserting between the heel part a bit of the rope about 2ins. long and sew that in between, as in Fig. 1. Then sew the rope round and round until the sole is formed, as in Fig. 2.

emerges at the centre of the thickness, the needle then enters the opposite rope, middle of the thickness middle of the thickness again and upwards, coming out at the middle of the next rope once more and so on.

Draw the thread tight as possible, and keep the sole as flat as you can, though a little concavity will not matter much. The soles should then be laid on a flat hard surface and be given a gentle beating to flatten them and also the stitches, to render them comfortable to the soles of the feet.

For the uppers thin leather would be excellent if it can be got, but it should be thin or sewing becomes hard work. As leather is difficult to obtain, a good substitute is strong canvas of the white or brown variety

#### Shape of Uppers

Definite sizes for these uppers cannot be given as they will depend obviously on the size of the soles, but the general shapes are shown in Fig. 4, drawn over lin. squares. Copy these squares on to paper and trace the shapes carefully. Cut them out and try them on the soles.

They will probably be about right for average men's size and can easily be reduced a little for lesser sizes. B is the toe-cap, C the heel piece and D, shown dotted outline for space saving, the cross band.



### Fig. 1—The first shaping

When the end is sewed down, avoid a lumpish joint by unravelling a couple of inches of the rope, cutting the strands to different lengths, as at A, before stitching the ends.

the sole

As regards the sewing. This can be done in any convenient way as long as no stitches appear underneath, as it will be obvious such stitches will soon wear through and the sole may break away.

A good method is sketched at Fig. 3, which is practically self-explanatory. The needle is pushed through the centre of the top of one rope and stitch

Fig. 4-The shapes to cut

Having cut these out in the canvas, the edges, not to be sewed to the soles should have in. to in. folded over and stitched down to make a neat hem. Remember when doing this that the heel parts are to be a pair, the strap ends being in opposite directions.

Start with the toe-cap. Mark the centre of the tip of it by doubling it in two to make a crease, and secure it to the centre of the sole front with a stitch. Some fullness is wanted in the toe-cap to leave comfortable room for the toes.



So a good plan is to place the foot on the sole, draw the ends of the toe-cap over and stitch each side, with the foot in position. Then finish the remainder of the toe-cap as neatly as possible, sewing from the sides to finish at the tip, and making such pleats as may be necessary round the tip of the sole.

#### Fixing the Heel

The heel parts are similarly stitched so far as centring is concerned. Then sew from the centre to one side and resume again from the centre to sew the opposite side.

Place the foot in position again, pass the cross band over and stitch down each side with the foot, if possible, in position. The feet should now fit in the sandals with just freedom for comfort.

The long strip of the toe-cap is passed under the cross band. Fastening is effected by cutting a button hole in the strap and sewing a button on the short end to fasten it to. The end of the long strip of the toe-cap is then passed under the strap, doubled over it and stitched down, so forming a loop in which the strap passes.

#### **Final Sewing**

This completes the sandals, the appearance of which will be judged from the general view. The sewing of the uppers to the soles can be done with a simple over and over stitch, the edges of the canvas being, for neatness sake, turned in a trifle, say, in. to avoid showing a raw edge.



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# A handyman should make a note of these ODD JOBS AT HOME

A LTHOUGH it is possibly a little late to get into the official period for spring cleaning, the amateur handyman at home should always bear in mind the opportunity he has of doing helpful little odd jobs in the home.

Readers often like a change from the normal work of model making, carpentry and incidental pastimes, and a reminder here of some of those little things they can undertake, and the way they can be done, will probably be useful.

In any case, attention to them will earn the gratitude of the housewife and help the home to run a little more smoothly in more senses than one. It only requires a little thought and a few odds and ends to realise the number of places and occasions where the handyman would really be useful.

#### The Use of Oil

Take, for instance, the difference which a little oil could make in many directions. Hinges everywhere are apt to be overworked and overlooked, and yet expected to function with regularity and success. A spot of oil in them will ease life generally, preventing a squeak and add to the ease with which they can be used.

Doors will swing better if a feather dipped in oil is put across the broken part of the hinge and a drop put on top and allowed to run down into the workings. A door handle gets used as much as anything in a house, and frequently becomes loose, broken or possibly tight in its working.

If necessary, you can unscrew the lock, take off the faceplate and find quite an accumulation of dust inside. Even if the spring is not broken, the lock can do with a dusting and then a spot of oil put on to the working parts. The faceplate is screwed on again, and the whole thing riveted to the door.

#### Worn Spindles

It may be in this connection, too, that the square metal spindle running into the handle, has become worn through constant contact and turning. Another spindle can easily be obtained from the ironmonger, and substituted for the worn one.

If the handle is loose it possibly wants another screw to hold it in place in the recess portion of the spindle itself. The knob may be broken, and here, too, another one can be purchased or the handyman can even shape one up himself from a block of wood.

The door knocker would be better

for a little oil, and further attention to this useful article could be given with a paint pot. The knocker could be brightened considerably by repainting.

#### **Door Bells**

Door bells should also be looked into to see if they will function better for a clean and oiling. If they are the kind which are fixed to the inside of the door, then obviously an accumulation of dust will be found inside the gong and the working. Take the whole thing off, and deal with it much the same as you did the lock on the door. If the knob on the outside has become worn in its metal socket, a fresh knob can be replaced or again one can be shaped up from a piece of hard wood.

In all these cases, it is not the amount of oil which is used remember, but rather that a film of it is put over the necessary parts. A good feather or a pipecleaner would come in useful for this. But in no case should the oil be squirted all over the place so it runs down and out on to any woodwork.

#### Castor Repairs

The heavy furniture such as chairs, dressing tables, etc. is too seldom looked into. The castors want adjusting and here again a spot of oil on the running portion makes a surprising difference to the ease with which the furniture can be moved.

If the castor has somehow become broken, replace it. Because if you do not, undue wear is thrown on to the remaining ones and they in turn will give up their job in despair. Then there are the windows of the house which all too seldom are given an overhaul.

Sash windows may have broken cords and although technically this may not be your job, it is worth keeping them running properly to prevent any accidents by a sash falling and hurting somebody. Even apart from broken cords, a little oil on the pulleys—not on the rope—is

## A Simple "Wheel-of-Life"

OETROPES, or "Wheels-of-Life" as they are often called, are easily made. In the one described, the revolving record table of a gramophone can be used, or alternatively, the discs can be spun on a length of tin. dowelling.

If you wish to make a Zoetrope, cut out two (say) 6in. diameter discs from stiff cardboard. One disc is slotted, as shown. On the face of the other disc the progressive movements of a "pin-man" are drawn, using black drawing ink.

Each drawing faces each slot. The bigger the diameter of the discs, the



greater the number of slots and pin man movements.

The discs are attached together by means of an empty cotton thread spool. Attach them to the ends of the spool with three or four drawing pins. Have the slots "dead on" with progressive drawings. When the discs are revolved, by looking through the slots (as they turn past), the pin-man drawings come to life according to the way you draw the movements.

#### **Pin-man Drawings**

In our pin-man disc, for instance, the "man" begins his drilling exercise by raising his outstretched arms, bringing them back to the same position again, then he starts lifting a left leg, the leg ultimately returning to its original position again.

Noedless to say, such a performance is repeated again and again, while the discs are revolving. Other discs can be made up, same being easily attached, or removed, thanks to the use of drawing pins.

If you wish to set the Zoetrope on a gramophone turn-table, a suitable hole (for the entry of the motor spindle) may have to be bored into the spool. However, try the spool on the spindle top.

#### **Narrow Slots**

The slots cut in the discs must not be too wide. Keep them narrow, perhaps  $\frac{1}{8}$  in. or 3/16 in. The face of the slotted disc must be coated with black drawing ink. The black surface shows up the slots better. The pictures are "broken" up with less haze. You will find the Zoetrope a simple, interesting, and scientific toy. distinctly helpful and a little easing of the frames if they have to run tight.

Modern metal casement windows, of course, need different attention and less adjustment, but here again a spot of oil on the catch and the outside hinge saves undue strain on these parts.

#### Gutters

Although not normally a job for the tenant, the reasonable householder will also periodically have a look if possible at the guttering around his roof. The accumulation of dust from the air and on the roof itself makes a surprising amount of sediment in the trough and if this is not cleaned a stoppage may occur which will cause an overflow and consequent damage to things below.

If you can, therefore, get a ladder and have a look inside the guttering before the summer really starts to see it is clear and that no water is allowed to accumulate off the points or any blocked passage.

Remember, too, that proper doorsteps are made of oak and left unpolished and unpainted. In such a case they should have some preservative and linseed oil is the stuff to use for this purpose. It is rubbed periodically well into the wood and serves to prevent cracking or rotting. You cannot get a polished surface with this of course, but a well rubbed piece of wood with linseed oil will certainly get a dull gloss which looks quite well.

The same remarks apply to some

of the outside woodwork fittings such as brackets under eaves where ornamental wood is used in place of metal.

#### **Door Draughts**

If your outside doors have shrunk unduly they will allow a draught and possibly rain to blow through. You may be able to overcome this by adding a very thin spline to the door jamb or tacking on a strip of leather. The finished job, of course, should be painted or varnished so it is not obviously new or a replacement.

These are only a few of the odd jobs which the handyman can do, and although they need not all be undertaken at the same time, they will serve as a useful piece of work at odd times.



Do you ever sharpen your bradother "edged" tools, like all other "edged" tools, need to be frequently sharpened on the oilstone if they are to give the best of service. We are apt to regard bradawls as merely boring implements for nails and screws—things that hardly need to be sharp in order to do their work.

There is a vast difference, however, between a blunt bradawl and a sharp one when we come to bore holes in hardwoods like beech, birch, sycamore, teak and oak. The keen-edged bradawl cuts a road for itself eating a way through the tough fibres; a blunt bradawl, on the other hand, has to be forced between the fibres so that, when the business end is withdrawn, the fibres close in and there is hardly any hole made in the wood at all ! Be wise, therefore, and see that you give your bradawls an occasional rub on the oilstone : you will be well repaid for doing so.

WHY is sandpaper called glass-paper nowadays?" a fellow asked the writer the other day. The reason, of course, ought to have been obvious, for a special graded sand was originally used in the manufacture of sandpaper which is now called glasspaper because, as the name implies, glass particles are used instead of sand particles. The only sandpaper existing today is emery paper, or rather, emery cloth, for the emery dust is sprinkled on a holland-like linen material that gives more flexibility than paper. Glass cleans wood surfaces better; sand (or grit) cleans metals better, and therein lies the big reason why we switched over from sand to glass.

THE best way to sharpen a spokeshave cutter is on the side edge of the oilstone. Apart from enabling any size of cutter to be used, the oilstone, sitting edgewise, is raised up about an inch higher so the prongs of the cutter do not interfere with the surface of the bench, or the oilstone box. Moreover, as the sharpening is done on a lin. wide surface, any slight curvature worn in the centre of the cutting edge can be got at easily.

SLIGHT buckles in bicycle wheels should not be tolerated. A few turns of the right spokes will instantly correct the twist in the wheel rim. A special spoke spanner, made in the shape of an iron lid about 2½ins. in diameter, can be purchased cheaply, the same gadget also serving for the spokes of motor cycles.

By noting the angle of the spokes one can see that by loosening some and tightening others, it is possible to draw the buckle or twist out of the wheel rim. Half of the spokes "pull" to the right of the rim (those connected to the right-hand side of the hub flange) while the other half pull to the left (those connected to the lefthand side of the hub flange). While adjusting the spokes, keep the wheel in its forks. The wheel, of course, must be supported up from the ground in some manner so it turns easily for frequent testing; one could, by the way, merely turn the machine upside down on the ground.

The chief reason for not tolerating a twist—even slight twists—is that such twists are ruinous to brake blocks and their fitments. There is a strain one minute, then a slackness the next, so that when the brakes are on, one moves in a jerky fashion.

\* \* \* READERS who are taking up stencil work as a hobby will undoubtedly find it a little difficult to purchase stencil brushes. These brushes, of course, are short-handled, with short, stiff bristles, the diameter being a range of sizes from §in. to Jin. When such brushes cannot be

When such brushes cannot be

obtained, a good tip is to make use of other kinds of brushes. An old shaving brush, for example, trimmed



short, makes an excellent lin. diam. stencil brush. Old, or new, toothbrushes, serve the purpose without trimming, but the bristles should be hair and not nylon, the latter being rather stiff and unyielding.

Another—and better—type of brush is the kind used for cleaning the face of letters in typewriters. This resembles a tooth-brush in appearance. Greatest advantage with these brushes is that, unlike toothbrushes, the bristles are level and soft, i.e., trimmed quite flat. It is possible to make other useful sizes from round-shaped, soft-bristled, paint brushes.

HAVE you yet tried the extremely difficult task of making miniature ship models for inclusion in empty pocket watch cases? This is a new innovation and a new experience for those who may care to tackle such an intricate, nimble piece of craftsmanship. The old watch case, of course, makes a neat show-case. It is usual to paint an adequate style of background scene on the inside of the back of the watch.

In an emergency, black shoe polish serves as a temporary makeshift for stencil ink, especially for rough stencilling on box ends, etc. The polish, that lifted by the bristles of the stencil brush, should be rubbed on a smooth surface, such as an old piece of slate or tin, before making the impressions. The polish is thus more evenly distributed on the bristles of the brush so that lettering is not smudged.





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