THE CHILDS CAMPERS MODEL PISTOL

CALIBER .22 SHORT

PLANS—SPECIFICATIONS—INSTRUCTIONS

Before starting your gun, study the instructions and plans until you have clearly in mind what each part looks like and its function in the finished gun. There are no measurements on the drawings as each part is fitted to the parts it works with as the gun is constructed. This is what is meant when it is said that high priced guns are hand fitted. They are made just as your gun will be made.

The drawings are all actual size and are to be used as patterns for the different parts of the pistol. Make card-board patterns of each part, then use these patterns when shaping the metal parts. Keep your plan sheet in good shape to check by. As you get a part filed out, lay it on the plan sheet to check its shape, but do not file the parts too close, until you have them all done, and start assembling your gun. An extractor has been left off this pistol in order to keep the design simple for amateur workmen, and to guarantee years of trouble free service. A short round wooden stick, such as a candy sucker stick, makes a good tool with which to push out the empty cartridge case. Do not use a metal rod or you will quickly ruin the barrel.

There are no special tools needed to build this gun, but if you can have the holes drilled with a drill press they will be more accurate. The quarter inch iron parts of the gun can be ordinary cold rolled steel. The bumper braces on junk autos are good metal and are generally the right thickness. The hacksaw, file and drill are your main tools, and if they are sharp it will make your work easier and the job better. Work slowly and worry about each step as you are ready to do it, and you will have your gun finished in a very short time. The model pistol made when working out these plans and instructions has been thoroughly tested and is completely safe when chambered for the .22 short cartridge, but the Designer does not assume any responsibility for mishaps caused by careless workmanship, the use of inferior material, or the changing of the design of the pistol.

STEP 1. BARREL—Fig. 1: The barrel can be any diameter and length. The one used on the model pistol is five-eighths of an inch in diameter at the breech end and a little smaller at the muzzle. It is four inches long, but you can make yours longer if you like. File both ends of the barrel square and finish with fine emery cloth so that you will leave no burr sticking out in the bore.

STEP 2. BARREL LUG—Fig. 1 & 6: The barrel lug is sawed and filed from one-quarter inch steel. Use cold rolled flat bar stock, the bumper brace off a wrecked auto, or one-quarter inch material from old farm implements. When you have it filed out, put it in the vise with the barrel edge up, and with a small round or half round file, hollow out the top edge so that the barrel will fit on it. Drill no holes now. Get the groove true so the lug and the barrel point in the same direction when they are fit together.

STEP 3. BARREL LUG SCREW—Fig. 1: This screw can be one-eighth inch or five thirty-seconds of an inch in diameter with a round head with a screw driver slot and square nut. Drill the hole for the lug screw through the barrel lug and mark on the barrel where it hits. File the bevel on two sides of the nut and file the dovetail notch in the barrel, drive the nut in the barrel notch and screw the barrel lug to the barrel. If the back of the barrel lug does not come flush with the breech of the barrel, file them until they are flush, one with the other. File the sides of the screw head flush with the sides of the barrel lug.

STEP 4. FRAME PLATES—Fig. 1 & 3: These are made of sixteen gauge sheet iron—not galvanized. Sixteen gauge iron is about one-sixteenth of an inch thick, and should be found in a welding, tin, or auto body shop. You can use a little thicker material than sixteen gauge but not thinner. Hold two pieces in the vise together and shape them at the same time. If your barrel is larger than five-eighths of an inch, the part of the frame plates that go up behind the barrel must be high enough to go to the top of the barrel. Leave plenty of metal. It can be filed off later.

STEP 5. PINS AND RIVETS: If you can get a few inches of one-eighth inch drill rod you are all set for rivets and pins, providing you have a one-eighth drill. If you cannot get drill rod, then an eight penny nail dressed down a little will go in a hole drilled by a number thirty drill, or a seven penny nail fits the hole drilled by a number thirty-three drill. Use iron rivets and pins any size that you have a drill for, that is near one-eighth inch. The rivets should be about one thirty-second of an inch long on each side to rivet nicely.

STEP 6. PIN AND RIVET HOLES—Fig. 3: When you have the two frame plates shaped out close to their finished size, center punch and drill all the holes in the right frame plate only. Drill the butt stock screw hole the same size as the rivet and pin holes. Do not drill the left frame plate yet.

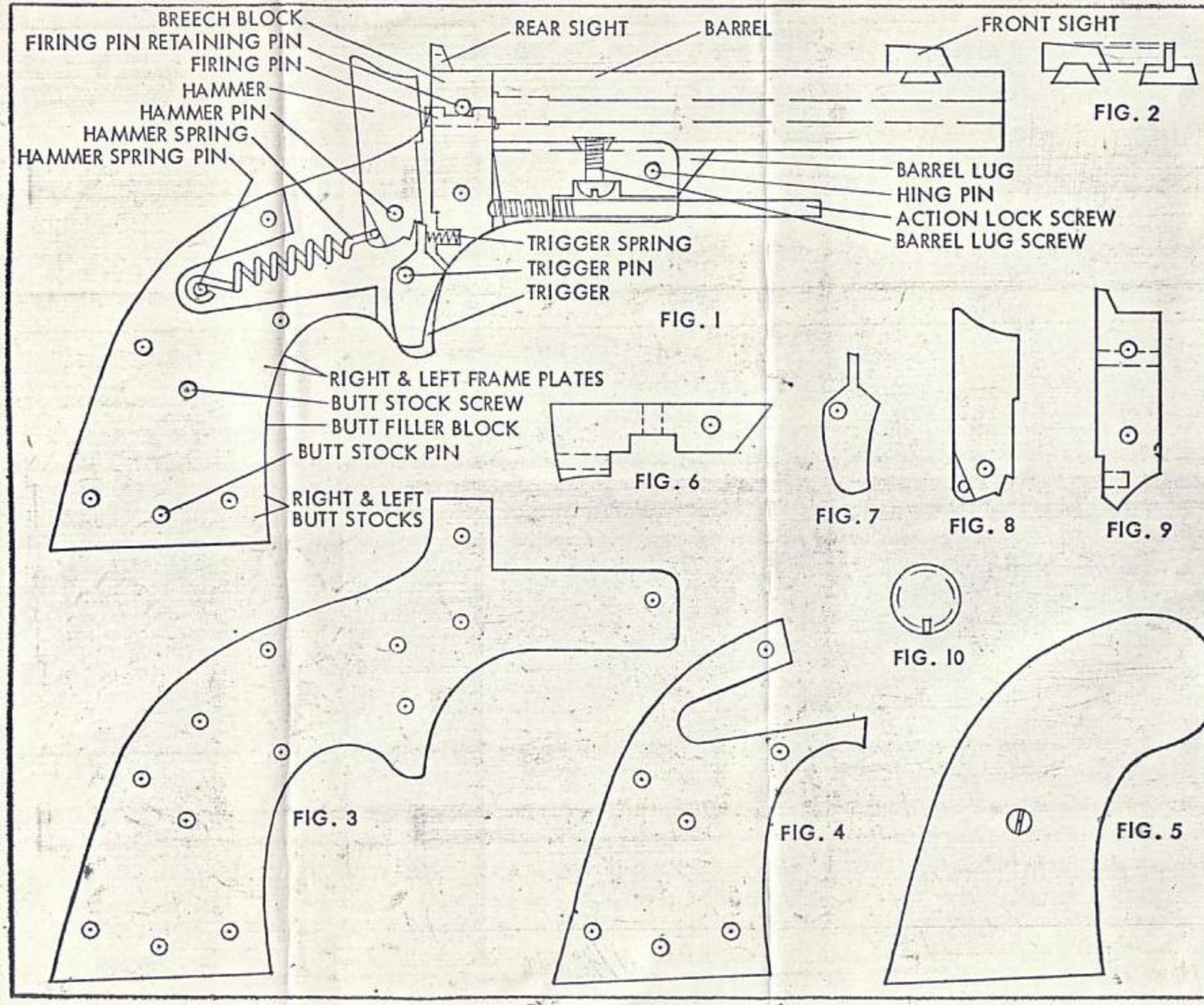
STEP 7. BUTT FILLER BLOCK—Fig. 1 & 4: This can be made of one-quarter inch steel, cast iron, or brass, but the brass and cast iron will not blue. When you have the filler block roughed out, excepting the notch for the hammer spring, lay the right frame plate on it and drill the stock pin hole, the stock screw hole, and the hammer spring pin hole in the filler block. Next drill the hammer spring pin hole out of the filler block with a five-sixteenths or three-eighths inch drill and saw out the notch for the hammer spring.

STEP 8. RIVETING THE FRAME—Fig. 1: Lay the right and left frame plates together and drill the stock screw hole and the stock pin hole through the left frame plate, then put the filler block between the frame plates and put a pin in the stock screw hole and the stock pin hole to keep the three pieces lined up while you drill the five holes for the rivets that hold the frame plates and filler block together. Cut five rivets and rivet the three pieces together. Keep the pieces tight together while riveting. Now take the pins out of the stock screw hole and the stock pin hole, and file the edges of the three pieces so they are flush with each other around the grip.

STEP 9. BREECH BLOCK—Fig. 1 & 9: This is cut from the same one-quarter inch steel as the barrel lug. It is one-half inch wide. Let the spur that makes the rear sight stick up higher than necessary. It can be filed down when sighting in your pistol. Drill the lower rivet hole and the trigger spring hole, but not the firing pin hole or the upper rivet hole. The trigger spring can be any small spiral spring, such as is found in carburetors, some mechanical pencils, and various other places.

STEP 10. BARREL FITTING—Fig. 1: With a small flat file, bevel the inside edges of the frame plates where the bottom side of the barrel touches, so that when the barrel is in place it sets down neatly between the top of the frame plates. Have the barrel lug on the barrel while doing this. Now with the barrel held tightly in place drill the hinge pin hole on through the barrel lug and the left frame plate. All holes must be drilled straight through—not on an angle.

STEP 11. CHAMBERING THE BARREL—Fig. 1: Use a number two drill to drill out the breech end of the bore of the barrel, the length of a .22 short cartridge. Next use a number one drill, and drill in the same depth. Now with a nine thirty-seconds drill let the head


BREECH BLOCK
FIRING PIN RETAINING PIN
FIRING PIN
HAMMER
HAMMER PIN
HAMMER SPRING
HAMMER SPRING PIN
REAR SIGHT
BARREL
FRONT SIGHT
BARREL LUG
HING PIN
ACTION LOCK SCREW
BARREL LUG SCREW
TRIGGER SPRING
TRIGGER PIN
TRIGGER
FIG. 1
FIG. 2
RIGHT & LEFT FRAME PLATES
BUTT STOCK SCREW
BUTT FILLER BLOCK
BUTT STOCK PIN
RIGHT & LEFT
BUTT STOCKS
FIG. 6
FIG. 7
FIG. 8
FIG. 9
FIG. 10
FIG. 3
FIG. 4
FIG. 5

of the cartridge into the breech of the barrel. As you let the head in, you should deepen the chamber with the number one drill so the cartridge will go in. When the cartridge head is flush with the breech end of the barrel the bullet should just touch the rifling. This makes for accuracy. Use a hand drill for the chambering with the barrel in the vise.

STEP 12. FIRING PIN—Fig. 1 & 10: Grease the barrel side of the breech block very lightly and put it in place, then put the barrel in place. Now put a pinch of flour or powder down the barrel, then pour it out, and with the gun in that position take the hinge pin out and pull the barrel straight away from the breech block. If you were careful there will be a round white spot on the breech block where the cartridge head will be when the gun is loaded. Drill the firing pin hole straight through the breech block at the bottom of the white spot. Now with a pin that is to be the firing pin in place, drill the firing pin retaining pin hole. The drill will force the firing pin out of its hole, so it must be held in during the drilling. After the hole is drilled take the firing pin out and file the notch made by the drill wide enough to let the firing pin move about one-sixteenth of an inch. Get some fired .22 shells and study the mark made by the firing pin before you shape yours. A good size is a rectangle, one-sixteenth of an inch wide and about three thirty-seconds of an inch high. It should hit just inside the edge of the cartridge head, but not on the edge as this takes too strong a main spring. If the firing pin catches on the edge of the chamber when you attempt to open the action, round off the bottom of the chamber edge with a very small file.

STEP 13. ACTION LOCK SCREW—Fig. 1: This screw can be made of any small machine screw about one-eighth inch in diameter or a little larger. It can be shorter than the one shown if you like. Drill the hole in the barrel lug and just start it in the breech block. Mark the spot in the breech block with the gun assembled. If you have a tap to cut threads in this hole for the locking screw, fine, but if you do not, hacksaw a square notch in the bottom of the barrel lug and fit a nut, that the locking screw fits, in this notch. Make this a snug fit so the nut will not turn when you screw the locking screw through it.

STEP 14. BREECH BLOCK RIVETING—Fig. 1: When riveting the breech block the firing pin must be in place. File the top rounded to match the barrel and the bottom smooth with the frame plates. The top of the frame plates stop in line with the barrel. Do this riveting neatly as it will show in the finished gun. Do not have your rivets too long. They can be filed shorter even after you have started the riveting.

STEP 15. HAMMER—Fig. 1 & 8: The hammer is made of one-quarter inch iron, then filed a little thinner so it will work freely between the frame plates. The eye that the hammer spring hooks into is less than one-eighth inch thick and in the center of the hammer so the spring will center between the frame plates. Drill the hook hole before you file it to shape. It can be just large enough to take the spring hook. Do not file the notches for the trigger sear yet.

STEP 16. TRIGGER—Fig. 1 & 7: The trigger is filed from one-quarter inch iron then thinned for clearance. When you get it shaped out, lay it and the hammer on the outside of the gun and put a pin through the hole in each piece and in the proper hole in the frame plate. Now file the notches in the hammer and fit the trigger to it. If the hammer and trigger pins fit snug in the frame plate holes it is not necessary to rivet them.

STEP 17. HAMMER SPRING AND PIN—Fig. 1: The hammer spring is a short stout coil spring with a hook on each end. It must be small enough to fit loosely between the frame plates. If it is not stout you will have mis-fires. Garages and hardware stores are the best places to find them. The hammer spring pin is not riveted. The butt stocks will keep it in.

STEP 18. SIGHTS—Fig. 1 & 2: The front sight is filed from a block of iron one-quarter of an inch high, three-eighths of an inch wide and one-half inch long. File the notch in the barrel first, then shape out the sight to fit tightly in it. Drive it in and leave it there. The rear sight can be shaped but do not file the notch in it yet.

STEP 19. SIGHTING IN: Put the barrel of the gun in the vise in such a way that you can see through the barrel and later put the rest of the gun on the barrel without loosening the vise on the barrel. Stick a piece of scotch tape (transparent) over the muzzle of the barrel with a large pin hole in the center. Next, punch a small hole in the center of the head of a fired .22 case and put it in the chamber of the barrel. Now sight through the peep hole in the cartridge and through the hole in the scotch tape. Have a friend hold a paper with a cross drawn on it about fifty feet away and move it until you see the center of the cross through the peep holes. Have him fasten it in that position with one of the lines of the cross straight up and down. Now without moving the vise or barrel put the rest of the gun on the barrel and screw the barrel locking screw up snug. Next file a square notch in the rear sight, working slowly and sighting down the sights often. You should see plenty of light on either side of the front sight in the notch of the rear sight. File the rear sight and front sight until your gun is sighted in to hit the vertical line of the cross about one inch higher than where the two lines cross. Later when you shoot your pistol you can do a little more filing on the sights until it hits where you point it at the range you think most of your shooting will be done. When shooting hold the gun in your hand, not in the vise. Shoot five shots at a mark and see how they group. Sit down, hold the gun with both hands and put your elbows on your knees, but do not set your gun hand on a rest or you will not be sighted in for off-hand shooting.

STEP 20. BUTT STOCKS—Fig. 5: The stocks are made of walnut or any dry wood three-eighths of an inch thick. Cut them to shape with a coping saw. Drill the stock screw hole through them before you shape them too close. The stock pin is to be long enough to go into the back side of each stock about three-sixteenth of an inch so they will not turn. Shape the stocks to fit your hand. The curved end up near the hammer should be about an eighth of an inch thick. Drill a recess in each stock so the head and nut of the stock screw are set into the wood. Any small bolt with a hex nut can be used. Make the nut a tight fit in its recess and file it smooth with the surface of the wood. Make little hollows on the inside of the stocks for the ends of the frame rivets. Sand the stocks smooth and soak them in linseed oil.

STEP 21. BLUING: After you have shot your pistol enough that you are sure it is hitting where you want it to you are ready for the bluing. Have the gun taken apart, springs out, and all the surfaces that will show, polished with fine emery cloth until they shine. Lay them on a piece of tin on the kitchen stove or play the flame of a blow torch over them and when they turn a dark blue after the purple color leaves, take them away from the heat and oil them with linseed oil while still warm. If you do not get a good blue on a part, polish it and try again. A dollar bottle of instant or touch-up bluing will give a good job. One of the professional bluing methods as outlined in detail in my booklet, "Bluing for Pleasure and Profit," which sells for one dollar will give your gun a factory finish. Put your gun back together, rivet the hinge pin so the action is snug, oil the moving parts, and you are ready for years of shooting.