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# CUSTOM CAR GRILLES



1966

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By George Barris

HOW TO SWAP & INSTALL CUSTOM GRILLES

NEW DESIGNS! NEW METHODS!

NEWEST STYLING!





# CUSTOM CAR GRILLES

by George Barris



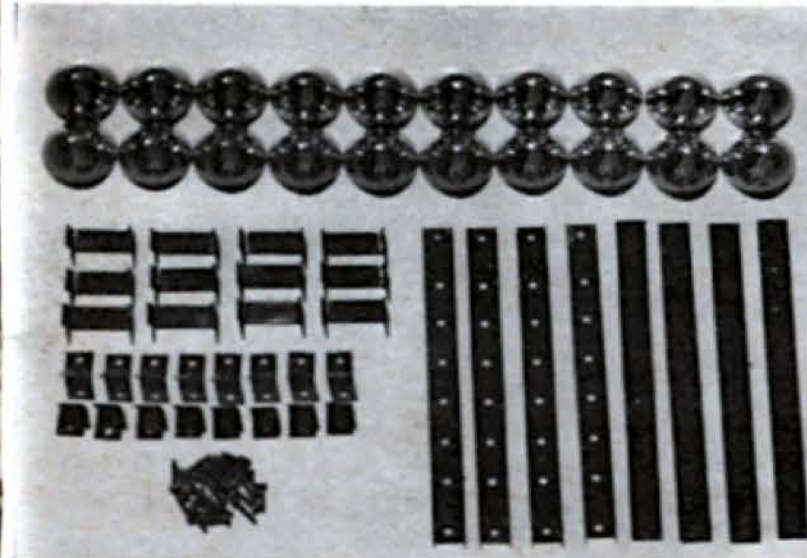
The Author



Bullets for grilles have become increasingly popular in the last year because of their easy adaptability to most any styling design and because of their ease of installation.

## **Bolt-On Grilles**

**C**USTOMIZERS have long ago learned that the easiest method of changing the appearance of the front end of an automobile is by changing the grille, and the easiest way to do this is by removing the original design and inserting a completely new assembled grille unit, commonly referred to by the hobbyists as bolt-ons. You can find these bolt-on grilles in accessory houses, hardware stores, automotive specialty shops, and sometimes in your favorite service station. A new favorite with many customizers is the bullet. Bullets can be arranged in various patterns to achieve the effect desired. They can be inserted vertically in even rows, used with mesh, alone or in combination with chrome strips. The photos on these pages show you how one customizer used bullets in the grille of his Chevy.



Bullet kit supplied by California Custom Accessories includes anywhere from 10 to 48 bullets, vertical brackets, horizontal floating standards, V-brackets and attaching screws. Priced from \$15.95 up, depending on number of bullets ordered.



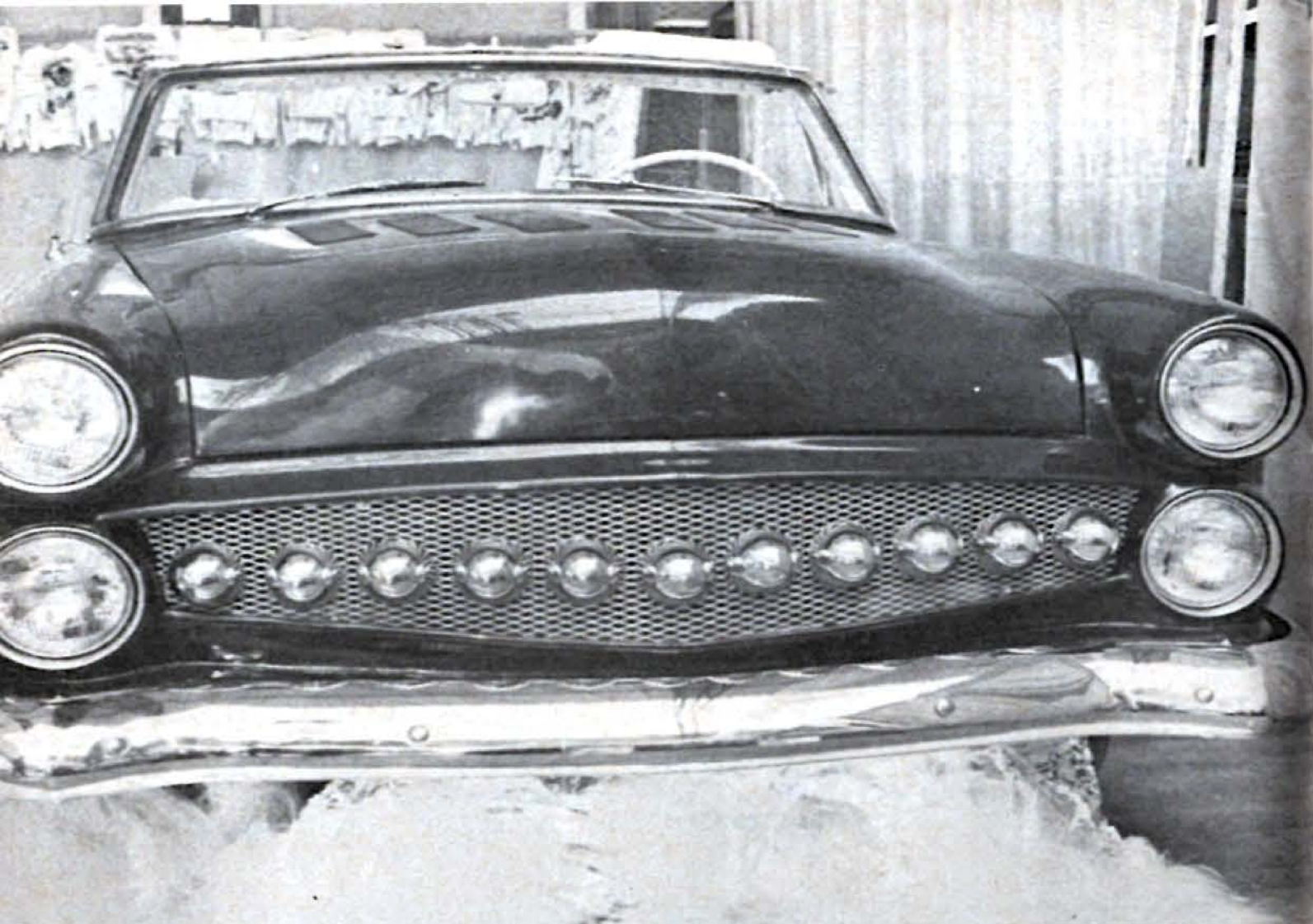
First step is to measure the width of the grille cavity after the original grille has been removed. Accuracy in obtaining both vertical and horizontal measurements is a must for a neat job. This bolt-on grille can easily be self-installed.



After cutting off the vertical uprights to fit the grille cavity, install the small V-brackets, as shown. These end brackets will attach to the grille pan and to the upper grille shell. Next, install the bullets.



You are now ready to insert each of the vertical brackets in the grille cavity, bolt them to the upper grille shell bar and to the grille pan. Any number of different designs can be developed in this way.



In this 1952 Ford convertible grille, bullets have been installed horizontally on a mesh screen type used for lathing houses, obtainable from building material firms. The design is effective and pleasing to the eye. Note the dual headlight arrangement.

**B**ULLET adaptations for grilles are practically limitless and depend largely on the imagination of the customizer and his individual taste. Since the bullet can be bolted onto mesh, bars, brackets fitted vertically or horizontally, their popularity has increased tremendously over the years. The parts for such an installation are easily obtainable from auto specialty shops, hardware stores, service stations, and the like. On these pages there are some excellent examples showing the variety of the installation and the different year and style cars employed.



This 1956 Ford grille cavity shows the ingenuity of the custom designer. He employed large drawer pulls, available at 49 cents and up from such stores as Sears, Montgomery Ward, or the local hardware shop.



An aluminum mesh fills grille cavity of this 1960 Falcon. The mesh, costing \$1.49 a sheet, has a clover leaf design. Small wheel bullets are installed in a row along the center and two rows of drawer pulls and a pair of directional lights complete the unusual installation.



This 1948 Plymouth has an unusually shaped grille cavity in which 1/4-inch expanded metal has been installed. Gold-plated drawer pulls are used in a V design with smaller round drawer pulls inserted between the longer pulls.



This 1956 Oldsmobile with its standard bumper-grille assembly makes for a natural setup for styling changes, if desired. The owner has inserted gate-type expanded metal in the grille cavity onto which he has installed two sizes of chrome bullets horizontally.



The grille swap here was easy to do, since measurements of the 1959 Chevy grille cavity and the 1958 Buick grille allowed for perfect fitting. The restyling accomplished by the switch not only had eye appeal but also improved the Chevy's appearance.

## Grille Swapping

**G**RILLE restyling by simple swapping procedures has become quite popular throughout the country because of the ease with which it is accomplished. The main difficulty, of course, is the problem of finding a completed grille assembly that will fit the shell opening of your custom. However, if the car owner will simply measure the grille cavity, and then measure the grille he wants to install on his car, the problem of fitting is mostly solved. Perform this procedure *before* you do any work or make your parts purchase. It will save a lot of headaches and waste of money. In the case of the 1959 Chevrolet shown above, the car owner has installed a 1958 Buick grille which, incidentally, was about as easy a swap as you'll find. The measurements of the Chevy cavity and the Buick grille were perfect for the exchange.

First, check the alignment of the grille to be installed with the grille cavity. In this case, a '58 Buick grille is being installed in a '59 Chevy grille cavity.

Next, take accurate measurements of the cavity, both horizontally and vertically, to be certain that the cavity can be filled with the selected grille.

Now transfer your measurements onto the grille, marking off any areas which will require cutting or removal of any metal.

Next, install the grille center into the cavity and mark off end sections that might have to be curved slightly to go around the headlights. Use a hacksaw to make necessary cuts and file to a fine finish with a machine file.

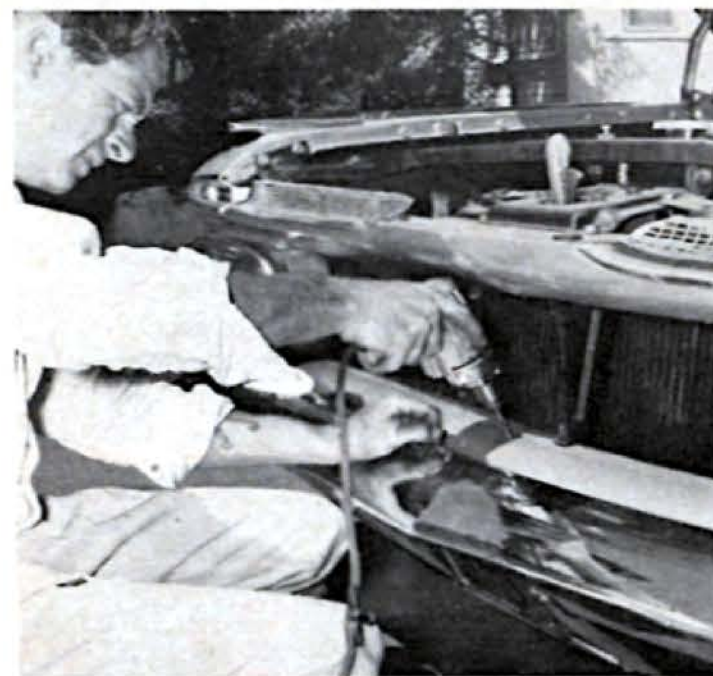




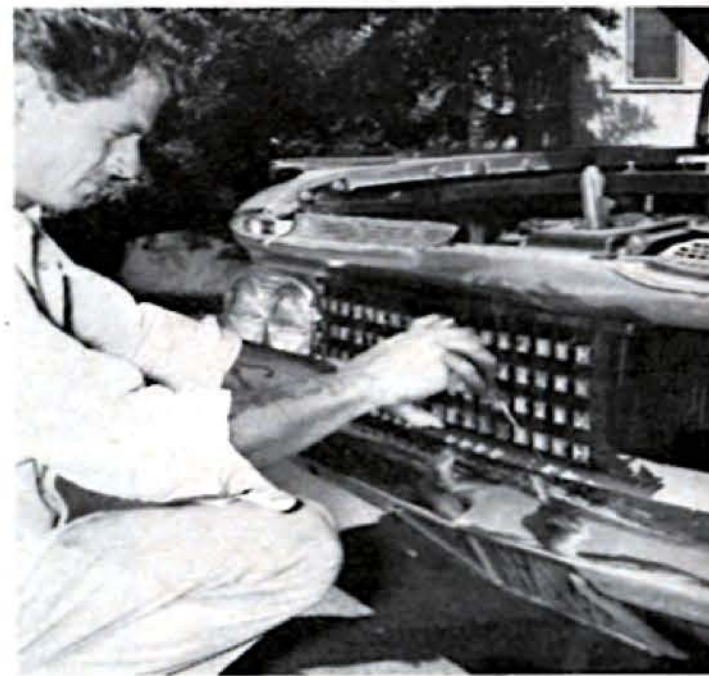
After the measurements are made, the portion of the grille to be removed for a close fit is cut by a hacksaw. The cut metal is then filed to a fine finish with a machine file. If edges are left rough cut, close inspecting show judges will notice.



Next, holes must be drilled in the upper and lower horizontal grille sections so that attachments can be made with bolts and nuts to the upper and lower grille shell. Location of holes should be carefully measured for easy insertion of bolts.



After carefully measuring holes that have been drilled in the upper and lower horizontal grille section, transfer location of holes to the lower and upper grille sections. Drill holes required for the later insertion of the various attachment bolts.



Finally, install the two half sections of the 1958 grille into the grille shell and bolt same into place. If measurements were carefully taken, problems in this grille swap are negligible. This procedure is easily adapted to other grille swaps.



Here, a 1951 Chevrolet gets the very popular, overly used 1954 Pontiac grille. Reason for the Pontiac grille popularity is that it looks good in most any grille cavity and is reasonable in cost, about \$20.00. Also, the installation can be done at your home.

**I**F YOU are interested in swapping your grille for another, you'll find that other customizers have used the grille centers that are easiest to install because of fitting problems, but this should not stop you from considering an exchange that would look entirely original from a design standpoint. The actual work may be more difficult, but the result may get you greater praise from your buddies and from the car show judges, assuming, of course, that you are making the change so that you can exhibit your car at one of the many special custom car shows around the country. The most original ideas you have will win you more awards than a grille swap that has been used often. For instance, the '54 Pontiac grille center, shown above, has been used so much in all types of cars and years that it no longer commands the attention of say, the '58 Buick grille center shown on previous pages. Up-dating your car by later-model grille centers can be accomplished also. There's no end to the number of adaptations that can be made.



This is a '53 Oldsmobile with a '54 Chevy grille center with added vertical blades. Directional lights are mounted on the inside of the grille shell, below and behind the center horizontal bar. Restyling appearance accomplished is good.



This '58 Thunderbird is not only distinctive because of the redesigned grille but also because of the unusual painting. The grille has vertical uprights taken from a '57 Corvette attached to the original Thunderbird mesh-type grille.



On this '58 Chevrolet, the grille cavity has been filled with a '59 Buick center section. The front-end of this particular custom has also been enhanced by special molded air scoops above the dual headlights. The scoops are non-functional.



Here's an 18-year-old car, a '42 Buick which has been customized nicely by inserting a '49 Cadillac grille center section with the end sections cut and molded into the two front fenders and aligned with the hood. Note the frenched lights.



This '55 Chevrolet has a '58 Chevy grille center with bullets taken from a '58 Cadillac. These bullets are installed on the outer mesh unit.



Creating a radical appearance, this '56 Ford has a '56 Ford Canadian Meteor grille fitted into the cavity with an upper grille ornament mounted on the hood.



This '55 Mercury has grille horizontal bars taken from a '56 Lincoln Premiere, which restyles the car nicely.



Here's a case of a rather old car, a '49 Ford, being modernized completely by a new front-end treatment. The grille center section is from a '58 T-Bird with small bullets from a '58 Cadillac and installed on mesh.



This 1954 Mercury has expanded square-mesh grille center installed between the upper bumper bar and the shell unit. The mesh hole size is  $\frac{5}{8}$  of an inch. Note how the customizer has shaped the grille center slightly into a concave curve. Fit is good.

## Expanded Metal Grilles

**T**HIS type of grille, expanded metal, is used very widely because of its universal adaptability. The metal can be formed or shaped to fit any cavity, regardless of the complexity of the design. Many customizers come up with quite original designs because of this. The metal itself is available in many different designs, from such places as sheet metal firms, heating and air conditioning companies, and hardware stores. Prices range from 90 cents a square foot on up. You can buy round hole, oblong hole, square hole, and numerous other shaped openings. It can be used alone or with such items as bullets, bars, etc., bolted directly to the mesh. One reason for its popularity is that it can hide the raw assembly of the grille pan, the shell, and the attaching brackets and radiator. After it is purchased in the raw form, the expanded metal can be chromed. It is also available in burnished aluminum.



Again, first thing to do when installing an expanded metal center section grille assembly is to measure the grille cavity, vertically and horizontally. Accuracy, of course, makes the job easier because you will be making the center section.



Transfer the horizontal and vertical measurements to the metal strip or bar to which you will be attaching the expanded metal section. This metal strip is also part that will be attached to upper and lower grille shell sections shown before.

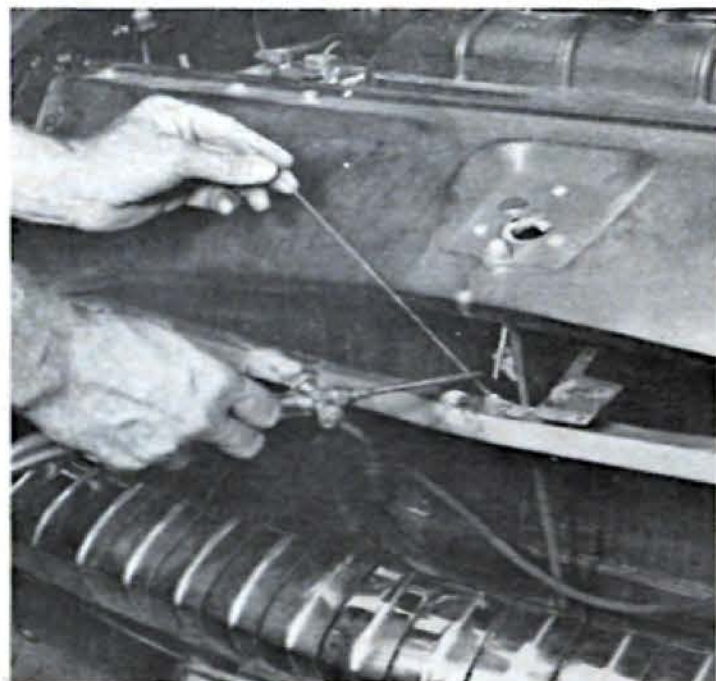


Use a hacksaw to cut the angle iron that is being used for the brace. Different size angle iron can be used, depending on the amount of weight it is to support. In this case,  $\frac{3}{4}$ -inch angle iron is being used. Sometimes angle iron isn't required.

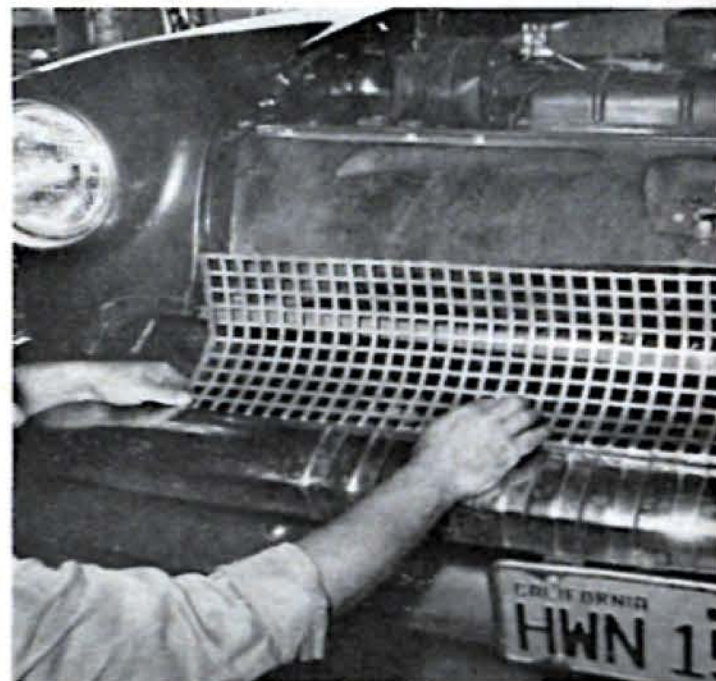


Drill holes in the ends of the grille shell and ends of the braces, attaching bolts, as shown here. Most of the work on this type of installation, as you can see, can be performed by almost anyone who has only a slight amount of mechanical skill.





After upper support brace has been V'd in the center, weld the V section together. Then weld a brace or support from the V center to the upper grille shell bottom. Support bar should be strong enough to withstand weight of the expanded metal.



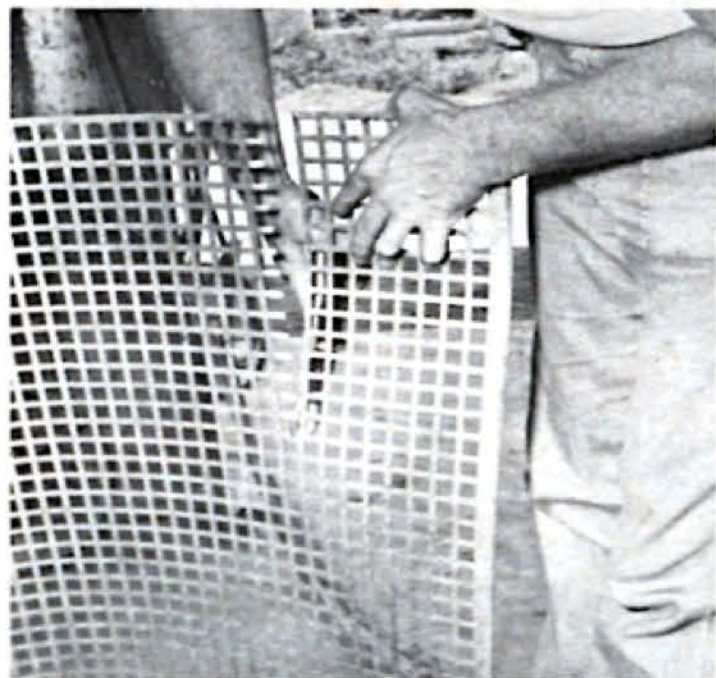
The square-hole expanded metal is fitted into the grille shell. Mark off the areas which must be cut to make a good fit. This installation involves an expanded metal piece shaped to a concave form. Customizers use many different shapes.



If the edges of the expanded metal have to be crimped, insert the grille section into a vise, then use a hammer to bend over same. Be careful when hammering to avoid wrinkling expanded metal edge. A simple body hammer is used.



Next, drill holes in the shell brace every six to eight inches so that the expanded metal can be attached to it. Be sure to measure the distance or location of the holes so that identical hole locations can be drilled in grille's crimped edge section.



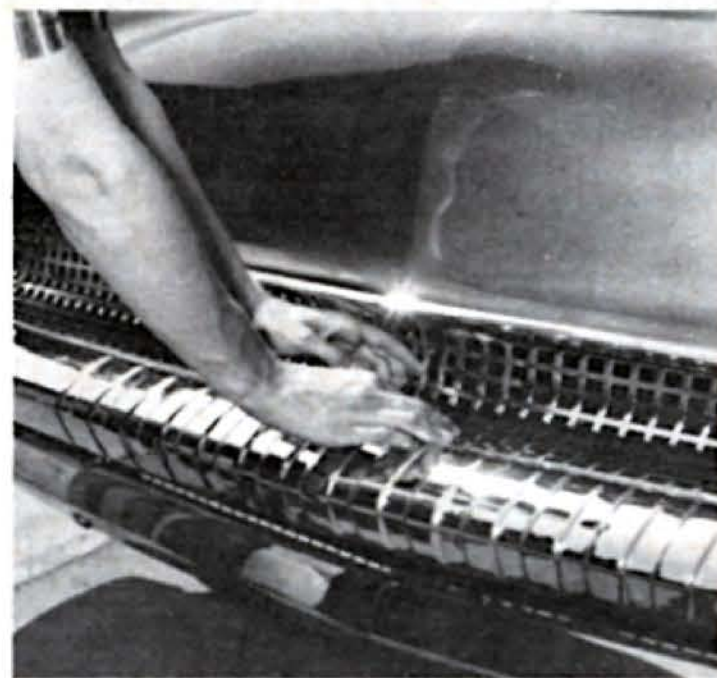
Next, use metal shears to cut off the excess metal from the expanded metal grille. As stated previously, the measurements taken before starting assembly is most important to insure good workmanship. Many customizers are careless here.



If you desire a roll or concave shape in your grille center section, use a three-inch pipe in a vise grip and bend the expanded metal center section around same. In this case, pipe was not long enough to do job, so the metal was bent in sections.



For neatness of the edges around the expanded metal, use chrome beading to fit around bumper and grille shell. This is the difference between a so-so job and one that your buddies will admire when your customized grille section is finished.



After the expanded metal is chromed, it is ready for installation in the grille cavity. Assuming that you have made your measurements correctly and that you are a careful workman, the finished job should bring you much praise.



This 1949 Ford has been nicely customized by using a '50 Mercury grille shell which has been neatly frenched into a pleasing oval shape. The expanded metal center section is called offset type,  $\frac{1}{4}$ -inch by  $\frac{3}{4}$ -inch openings. A  $\frac{1}{2}$ -inch metal band has been welded onto the expanded metal. The complete unit is chromed and floated in shell.

**T**HE VERSATILITY of expanded metal can be seen in the accompanying photographs. Customizers have always been looking for a material that can be easily adapted to many different shapes and overall styles, and they have found it in expanded metal. Although its use began some four years ago, it's only been in the last couple of years that the boys in the backyard garages and small body shops have taken to it like a duck takes to water. The expanded metal has been particularly useful in covering up sights that would only detract from the overall styling of the car, but most important of all, of course, is its exceptional adaptability. From cars of the Forties to the Sixties, expanded metal in grilles does a job that costs little and is quite effective.



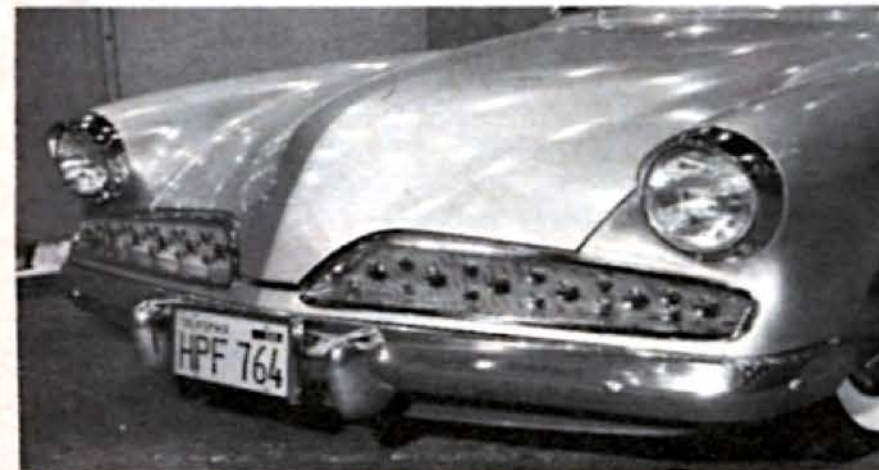
'59 Chevrolet features a  $\frac{3}{8}$ " by 1" oblong hole, 18-gauge, cold-roll expanded metal grille. Note the triple roll of pronged metal tubes extending out from grille.



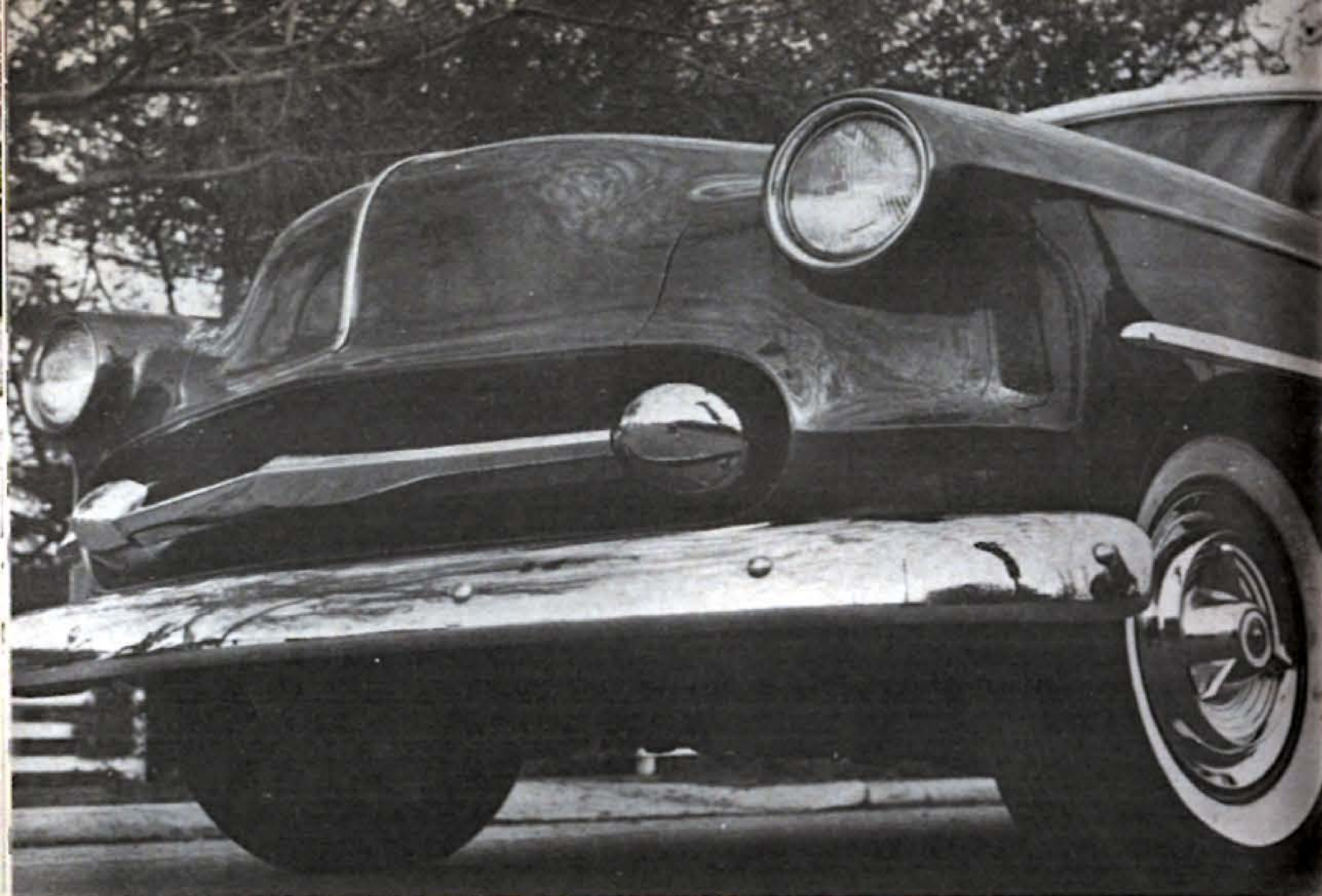
A waffle, checked-mesh-type design is quite popular with the sports car set. This expanded metal grille was taken from a Thunderbird, cut down, and inserted in this sports car special. Note outer chrome rim to which mesh is bolted.



The expanded metal here is 20-gauge cold roll with  $\frac{1}{4}$ -inch holes. The car is a '40 Ford. The flattened tubular prongs add interest to the unusual grille design that has been created. Note headlights.



Woven screen coarse wire mesh is used in the grille shell of this '53 Studebaker. Note the installation of two different size drawer pulls, staggered in location throughout the two grille cavities.



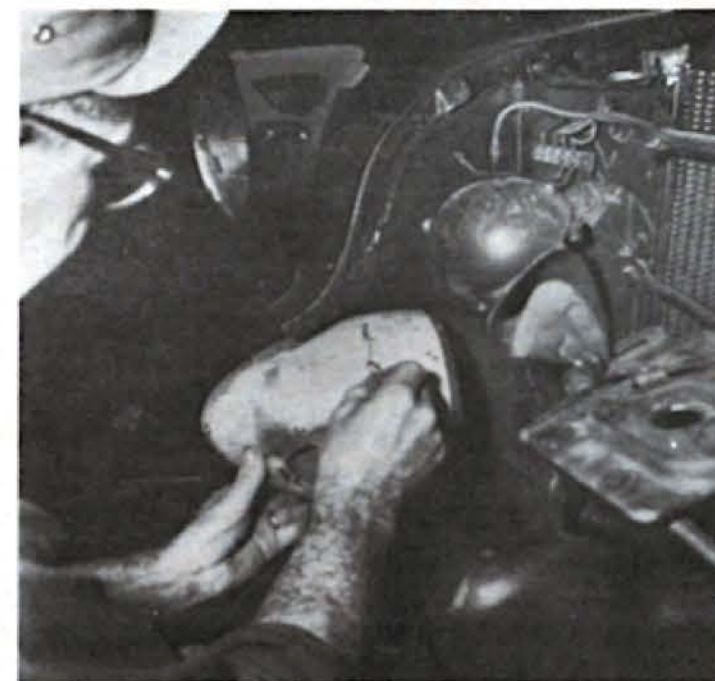
This '53 Chevrolet has a frenched grille shell and a floating grille made from a '51 Ford grille bar to which two '36 Ford headlights have been reversed and attached.

## ***Floating the Grille***

**T**HERE was a time when floating grilles had a tremendous popularity. That isn't to say that they still aren't popular, but many other types of grilles have come along to gain favor with customizers. If you go to any custom car shows, however, you'll always find a good number of cars that feature floating grilles. Floating grilles have been around since the early Forties, and they're not likely to go out completely, ever. Again, they became popular in the first place because of their easy adaptation to any type of grille shell and because there can be so many variations of the design. Floating grilles are particularly successful when they are used to eliminate extremely massive chrome grilles. They are attached by springs and rubber mounts which absorb much of the shock in case of an accident and, by being separate from the main grille shell, they can be replaced easily.



On this floating grille, the parts used were two '36 Ford headlights and the grille center bar from a '51 Ford. Both can be obtained from a wrecking yard where many Fords of these models have been retired. Cost should be negligible.



First step is to fit '36 Ford headlight into ends of grille shell and mark areas which have to be cut. Note that the headlight shell is to be assembled on the center bar reversed from its normal forward position. Welding is required for this conversion.



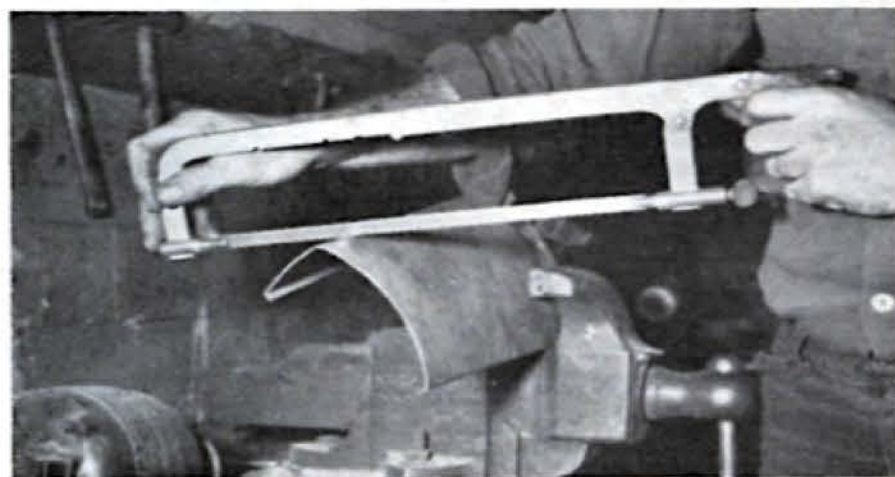
Use metal shears to trim off area that has been previously marked when the headlight was set temporarily in the grille shell. Be careful to trim the exact amount desired. If you cut too much metal off, it will be necessary to find another light.



Now install the headlight bullet in the grille shell opening to check for correct shaping and size. If necessary, you can bend the headlight shell slightly to make it conform to the shell opening. This can be done by placing shell over your knee.



Measure distance between two headlights you have placed at either end of grille shell to obtain length of horizontal bar you are going to use in this conversion.



After double-checking measurement to be certain that no error exists, place center bar in vise and cut either end off with a hacksaw. Do not take metal off on one end only.



Mark area on the main grille bar to conform to the contour of your bullet. Then grind metal off to fit same.



Braze bolt studs on the ends of the main grille bar to attach onto the floating bullets. This is done on the inside edge, of course, as shown.



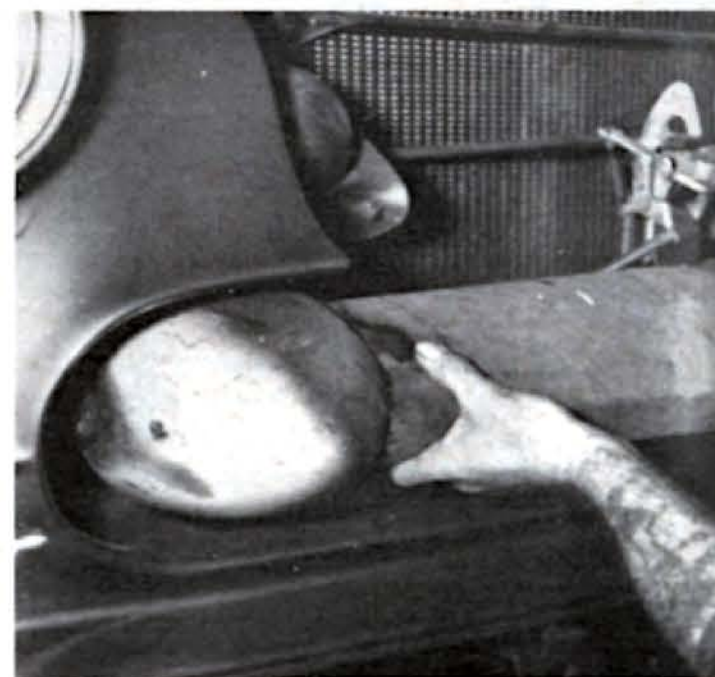
Now install bolt studs on the ends of the main grille bar. Then attach these to the floating headlight bullets. Note the long stud on the opposite side of the headlight bullet; this is used to attach assembly to the inside pan of the grille shell.



Install headlight bullet onto the horizontal grille bar, using bolts that have been previously brazed into position. A nut and washer are tightened onto bolt until the headlight bullet is held firmly in position desired. Two bolts and nuts are used.



Braze washer on center of grille bar so that a bolt may be used to firmly secure the center section of the horizontal bar to the inner grille shell. Grind off excess weld material for a neat job. Note second washer opposite one being welded.



Install complete unit in the grille shell opening to be certain that all attachment bolts and holes align properly. Finally, send assembly out for chrome plating. When this has been done, install it in opening. Your floating grille is now done.



This 1950 Chevrolet has a '50 Mercury grille shell frenched into the fenders. The center floating grille bar is a '57 Corvette with three times as many vertical teeth added than on the original design. Four directional lights, taken from '59 Cadillac taillights, have been installed at either end. The white reflectors are used only, not the red.

**T**HERE are so many examples of floating grille center sections around that it was easy to come up with the excellent cross section shown on these pages. When floating grilles first came out, persons not-in-the-know wondered just how they were attached to the grille shell since they certainly seemed to appear to be detached from the car. That was exactly the effect desired in the design. No matter what year or model car, the floating grille gives the design a futuristic appearance, possibly due to the influence of modern art. At any rate, customizers all agree that the fellow who first originated the floating grille had an ingenious flair for creating something that was worthwhile copying.



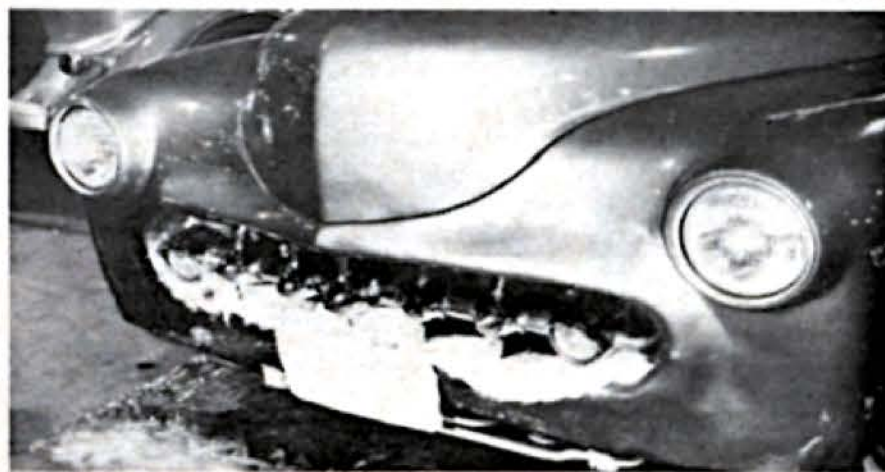
This '52 Mercury has been modified nicely by the use of '55 Ford parking lights and '56 Corvette grille center to which additional vertical blades have been installed.



Here is a '50 Mercury using a '57 horizontal Chevrolet grille center with a '53 vertical grille blade at the center.



This unusual custom, a '56 Chevy, has four '54 Chevy grille centers with added blades. Note the rounded hood, unusually shaped headlight shells and airscoops in the fenders.



Hardly recognizable as a Plymouth, this '49 model is fitted with '57 Chevy grille with '53 Chevy vertical grille bars. Note the directional lights.



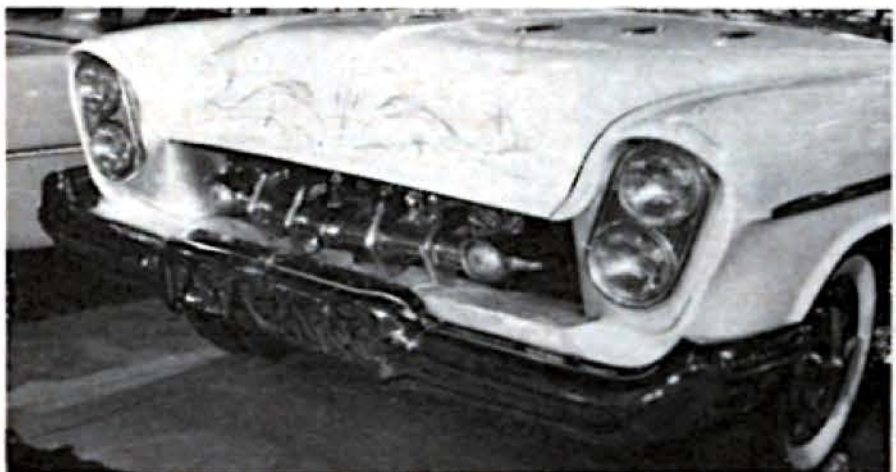
Here's a '55 Ford with an extremely nice floating grille design. '55 Ford parking lights are floated in a frenched shell. The center grille bars have one strip taken from a '59 Buick grille.



This '51 Mercury has double floating bars from a '51 Kaiser, installed expertly in a frenched shell. Note the use of a plain bumper and contrasting paint trim.



This '50 Mercury has a rolled pan and frenched grille shell, using '57 Chevy horizontal bar and '53 Chevy vertical bars. Note headlight extensions.



This '56 Chevrolet has '54 Chevy floating center bar with '57 directional lights, also from a Chevrolet.



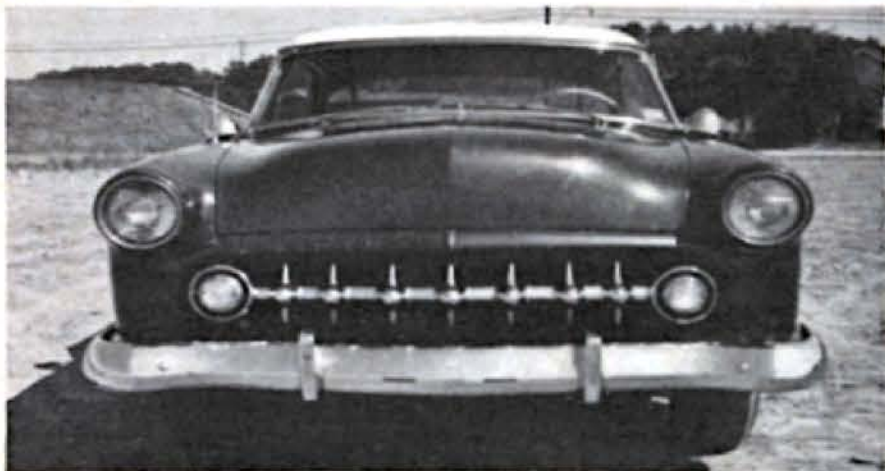
Here's an old one, a '46 Ford that's been customized rather radically. It has a frenched grille shell with aluminum expanded metal backing with a '56 Corvette grille installed in front, a nice design.



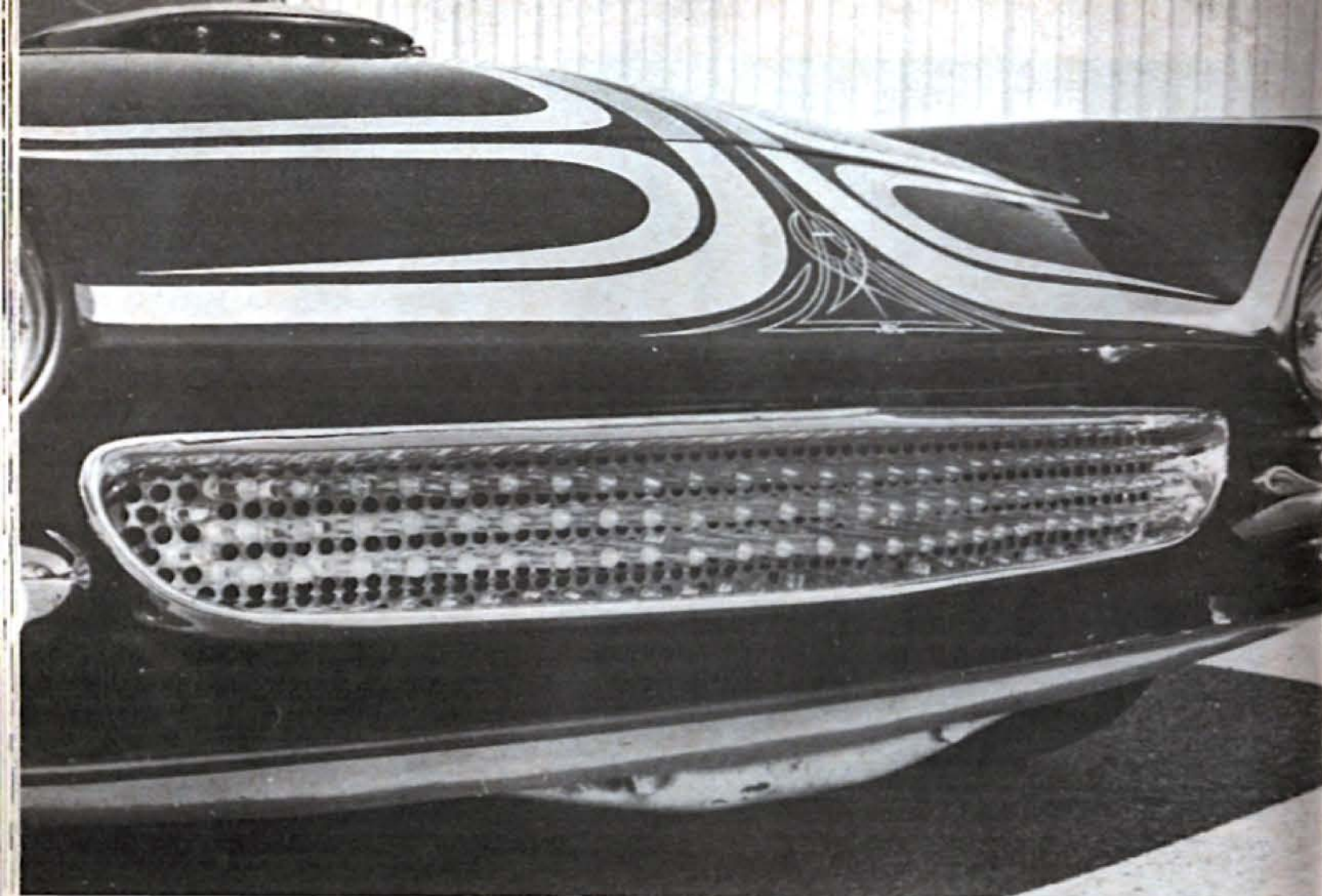
Pickups also get their share of customizing work. Here, a '56 Ford pickup has a floating grille bar taken from a '57 Chevy pickup, turned upside down with both outer and inner grille units.



This '53 Chevy has a floating grille bar taken from an imported car, a Hillman. It makes an interesting grille conversion not likely to be seen elsewhere.



This is a popular design on a '52 Ford. It consists of '53 Chevy grille floating in the grille cavity.

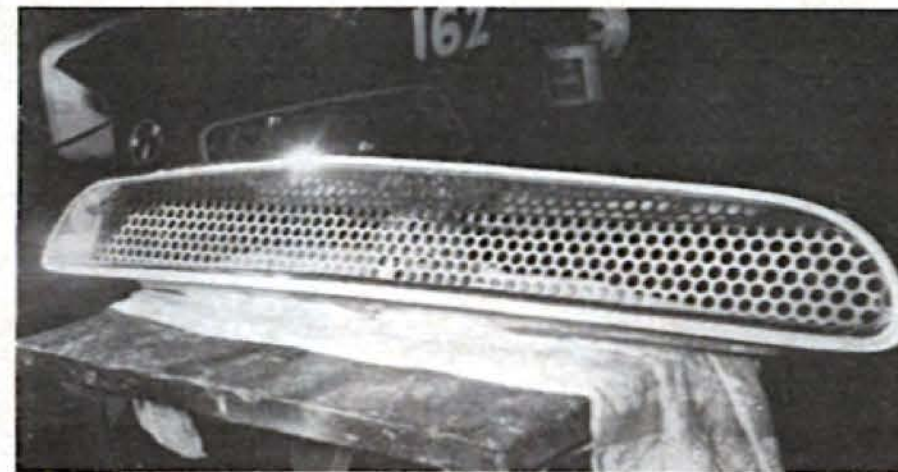


This '57 Thunderbird employs a floating center grille bar from a '57 Chevrolet pickup with 1/2-inch plastic studs, polished, and mounted on a backing of expanded metal. The stud ends have been gold dyed and have a light shining from the back at night.

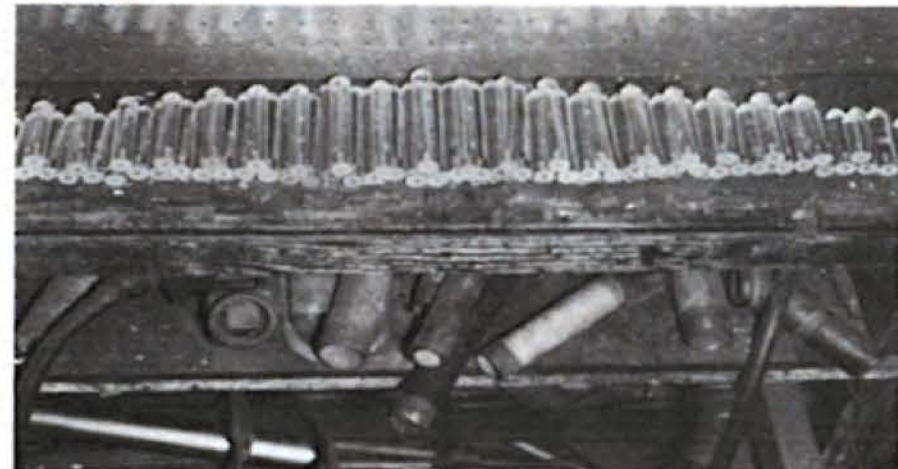
## Plastics

THE USE of plastic in customized grille assemblies has become very popular in the last couple of years because of the different designs in plastic that you are able to purchase. Available are plastics of various pastel colors and shapes. There are translucents which can be illuminated from behind to create an unusual effect at night. Here again, customizers have found that they can perform most of the work when installing plastic shapes to their grille mesh or shells. Cost is not too great and the newest gimmick is to combine plastic with color-dyed end pieces with chrome; this gives the illusion of multiple colors throughout the assembly, especially when sunlight or artificial lights play on the unit. It's new and it's good.

Center section of grille that is used to house the plastic studs is from a '57 Chevrolet pickup with an expanded metal sheet backing.



Here is a view of the plastic studs that are used for inserting in the expanded metal grille. Note that they are of different lengths, the longer studs being for the center of the grille, shorter ones for ends.



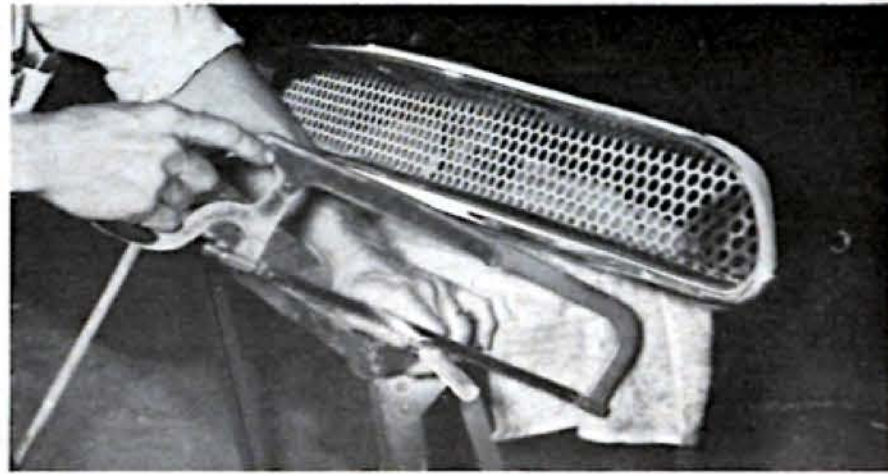
Measure the length of the studs that are to be installed into the grille shell to be certain of adequate clearance.



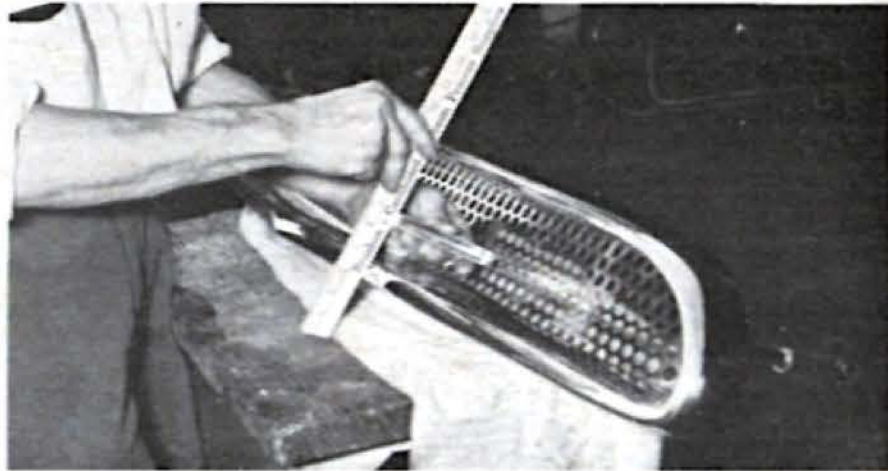
Transfer this measurement onto a round plastic clear tube prior to cutting same.



Next, use a hacksaw or coping saw to cut the plastic tube to length previously determined.



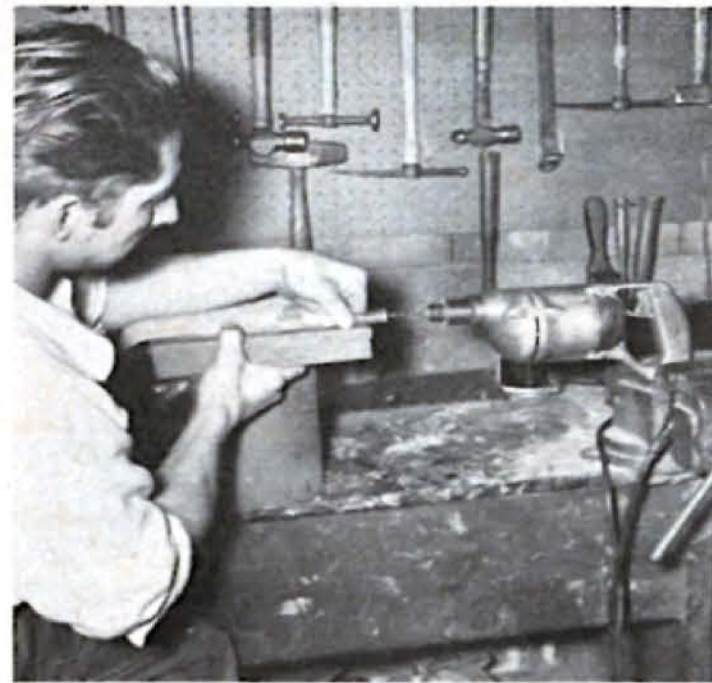
Now, fit the stud in the mesh grille, checking the alignment with a ruler.



Using a grinder machine, shape the ends of the plastic studs to a V-point, as shown.



Use #400 wet sandpaper to sand out all the grinding marks and scratches.



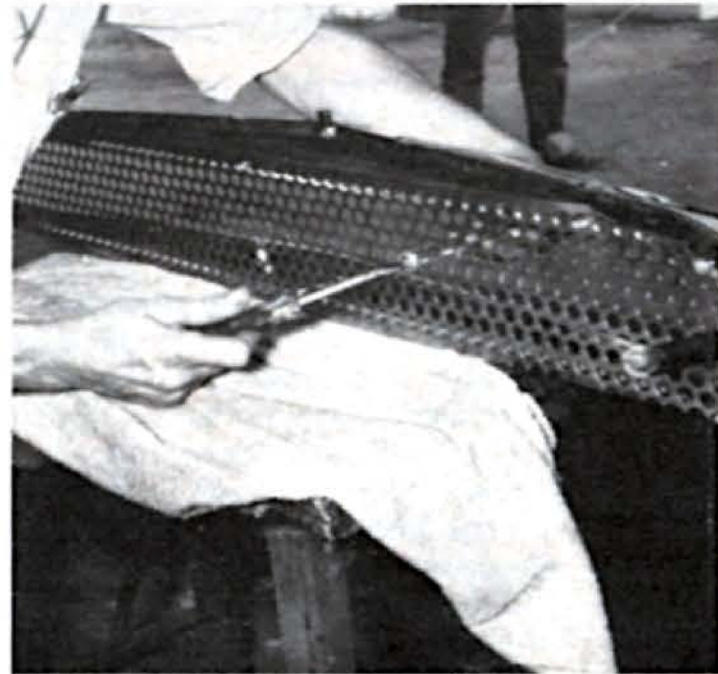
Using a drill mounted on a rigid support, such as a vise as shown here, drill a hole in the center of the plastic stud opposite the tapered end which was previously shaped by a grinder. Purpose is to provide an attaching method to the mesh.



Use color chrome in any color desired (red, white, blue or gold), on the ends of the plastic studs. Of course, you may prefer to leave the studs clear. Either way is effective. Some customizers have gone in for multiple colors when using plastics.

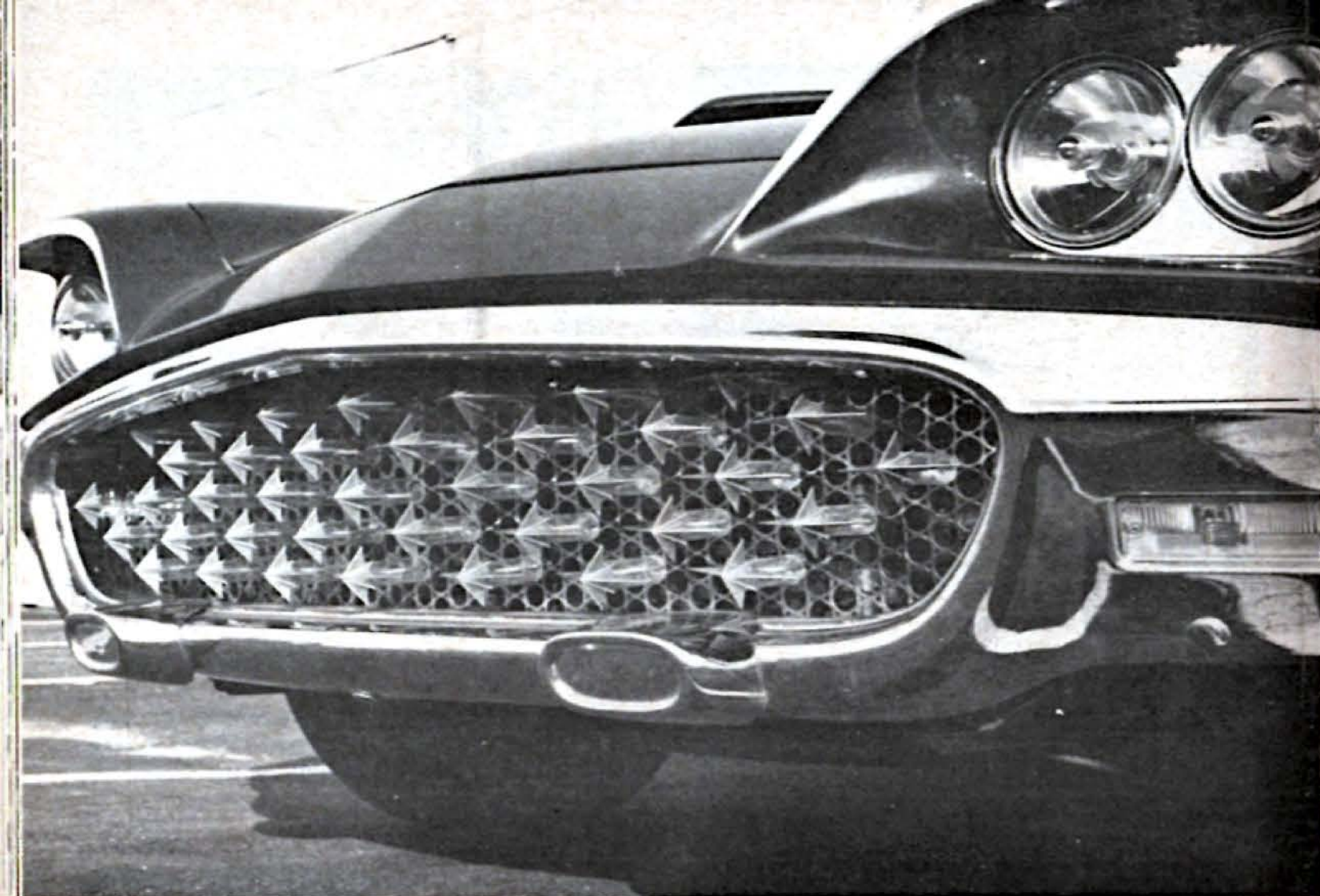


Use rubbing compound or the heat from a torch to polish the ends of the plastic that have been sanded. This will give a finished look to work you are performing.



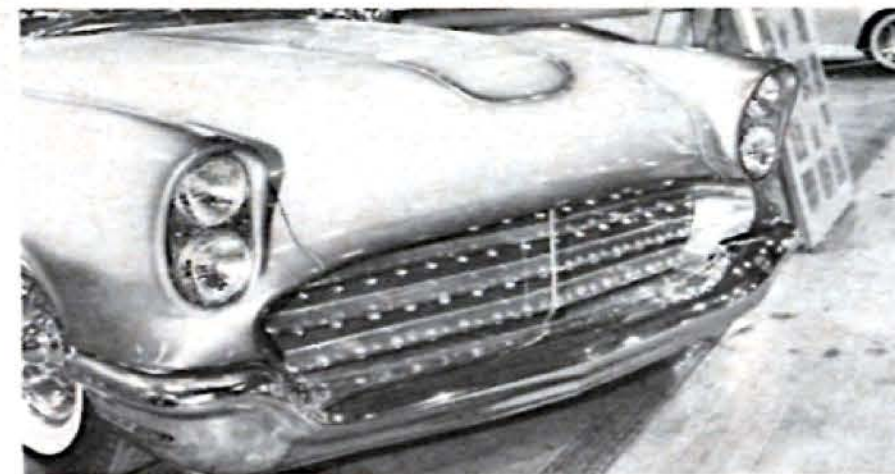
Now, attach the studs to the expanded metal with small PK screws. By placing studs in various patterns, you can create your own individual styling design.





This 1958 Ford Thunderbird has styrene plastic stars, painted with gold, on the ends of one-inch clear-plastic tubes attached to the mesh backing. This allows the stars to "float" in the grille opening. This effect created favorable comment for the owner.

**M**ANY household plastic units can be adapted by customizers for use in grille shells. Readily available from department, variety, and hardware stores, these plastic pieces can be purchased anywhere from a few cents apiece up to slightly over a dollar, depending on the complexity of the shape. Such items as plastic towel bars, rings, drawer pull knobs are the things to look for. Plastic is available as clear, translucent, color-dyed, or styrene—all quite usable in your grille shell assembly. Also available, plexiglass has received considerable attention by various customizers who are always looking for some new material with which to restyle their cars. Again, a minimum amount of skill or tools is required with which to do the work. On these pages, you'll find some excellent examples of what others have done. You may adapt your styling easily from these many suggestions.



This 1956 Oldsmobile has a frenched-in grille cavity with a brushed stainless steel insert. Horizontal plastic bars are 1/2-inch wide and attached to the expanded metal. Plastic, polished end sections complete assembly.



Plastic frosted sheets have been used around the twin headlights within a newly designed grille cavity in this unusual Thunderbird. Note the 3/4-inch round plastic grille bars in the center.



This 1956 Oldsmobile has 1/4-inch sheet plastic with drilled holes in two different sizes with small bullets added. It makes an effective grille center that sparkles.



This 1959 Chevrolet features horizontal plastic tubes that have a rainbow of colors laminated onto each. This unusual grille represents a lot of work by the owner.



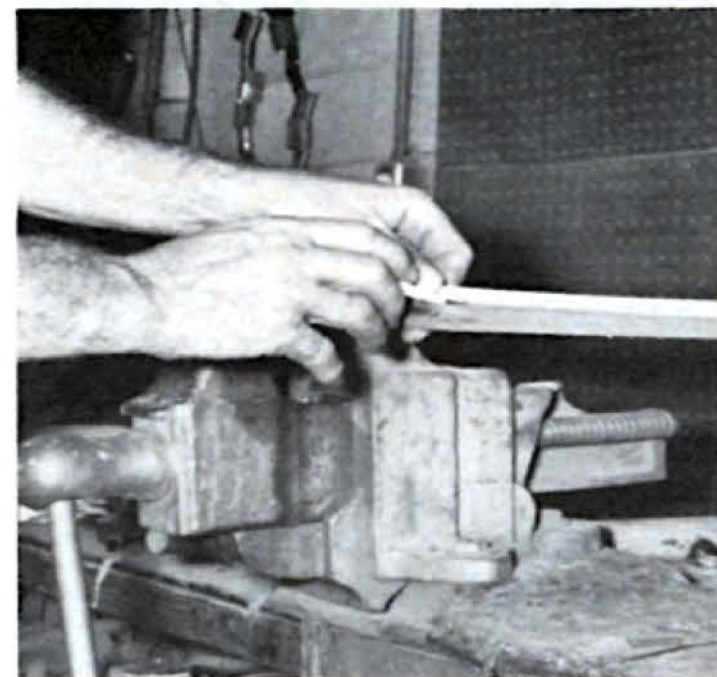
This 1957 Ford custom features a handmade grille, using raw stock components which must be formed or shaped to meet curvatures of the grille shell opening.

## Hand-Made Grilles

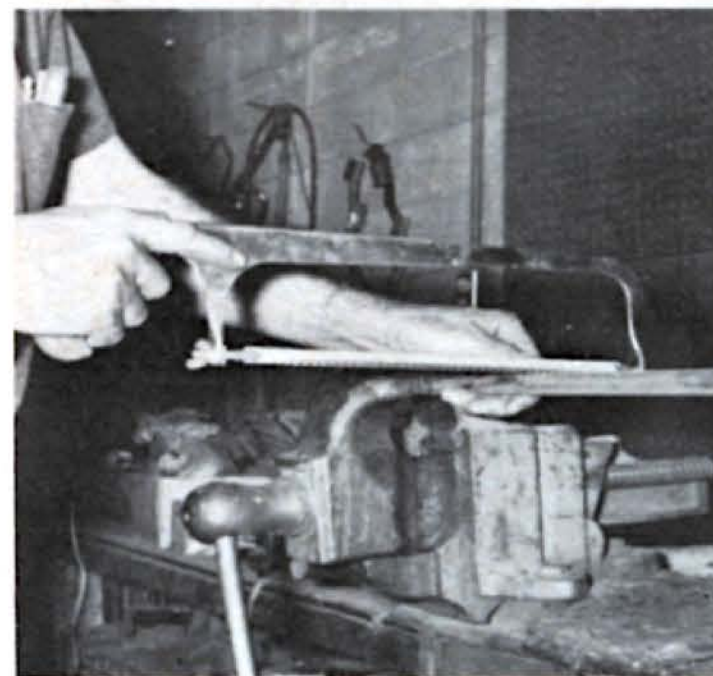
**F**OR THE beginning customizer who knows little of reforming or reshaping metal, welding, or other related procedures, the handmade grille should be left alone unless, of course, he takes his work to a professional body man. Nevertheless, the handmade grille is desirable because it can be designed differently from anything else. Copying other styling can be kept to a minimum, and the customizer can let his own ingenuity run rampant. Stock components can be used in the making of handmade grilles, but they are always reshaped to the contours of the new design. Tubes, angles, square bars, metal plates, mesh—many different types of grilles can be made by hand-forming. The fantastic dissimilarity of the front ends of all of the customs in this book aptly illustrate the lengths to which customizers go to come up with original designs. A large percentage of the grilles are handmade.



First step is to measure the grille shell opening after the removal of the stock or original grille center. This should be measured vertically as well as horizontally.



Transfer the center or shell opening measurements to the raw stock bar material that you are going to be working with. Accuracy in this regard will save you time.



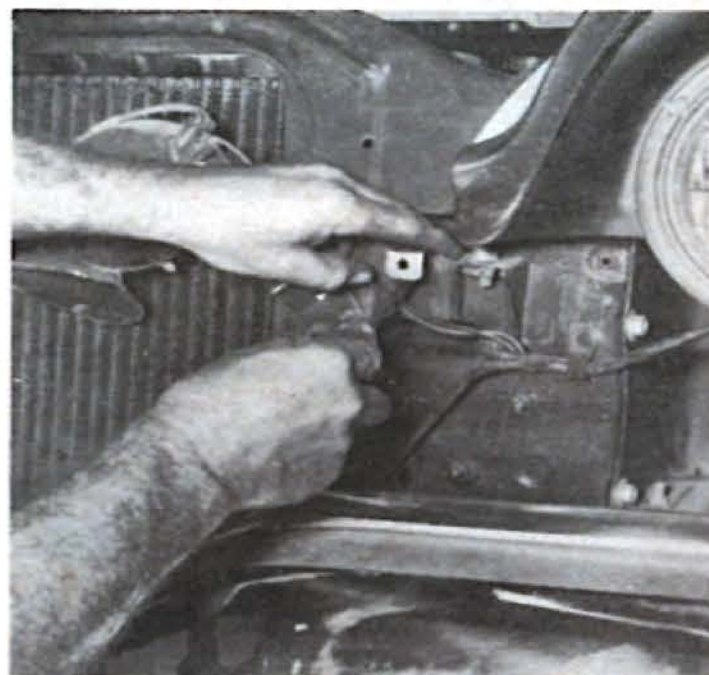
Using a hacksaw, cut the bar to the desired length. After the cut has been completed, file off the rough edges with a machine file. Various size bar stock may be used, depending on the design that you are contemplating. See the next page.



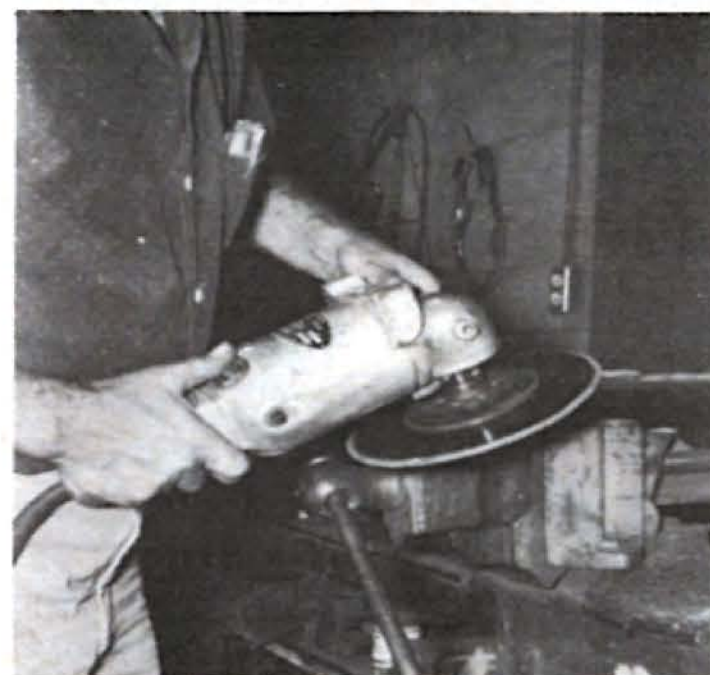
With the tube or bar stock placed securely in a vise, bend the material to the desired shape. In the case of tubular raw stock, a tube bender may be used, as shown, to obtain any number of curves in the material, depending on the design.



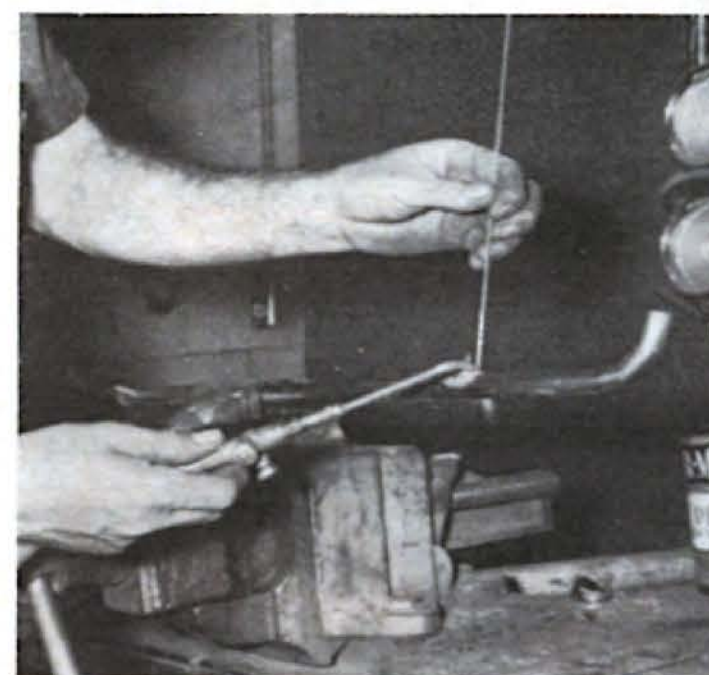
Next, drill holes in the inside plate that will be used to attach the bars to the inside pans of your new grille assembly. Holes should be at center of the plate.



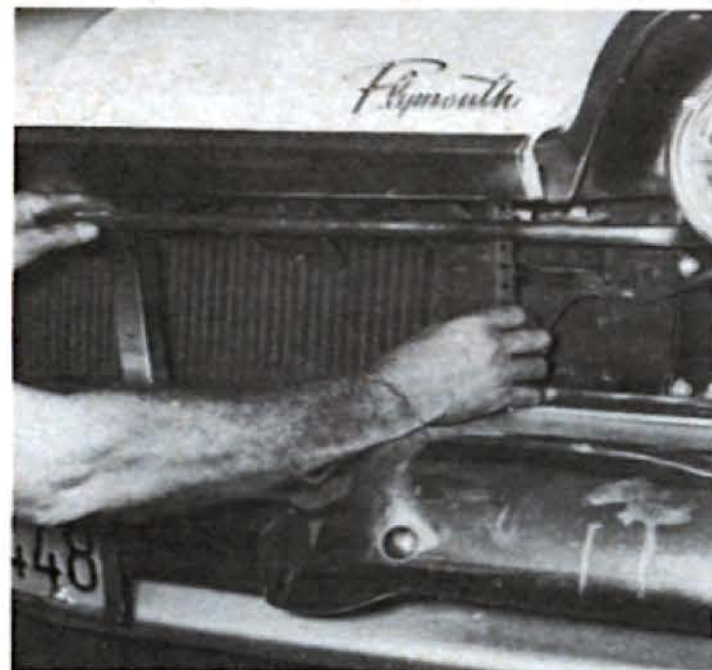
With holes properly drilled, attach this plate to the inner pan of the grille assembly. Several such plates may be installed in strategic locations for support.



Use an electric grinder to clean all the rough-edged metal off the raw bar stock or tubular stock before you get ready to braze the studs onto the stock. If a grinder is not immediately available, this work can be performed with machine files.



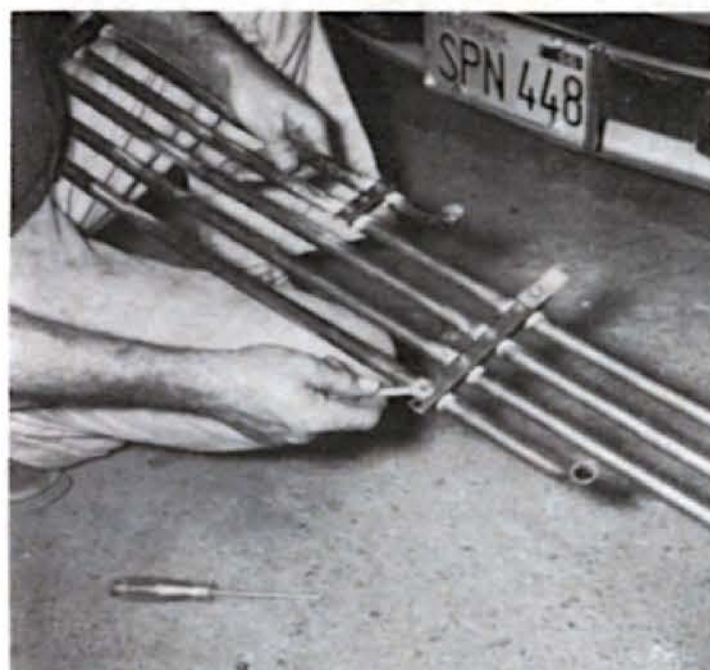
In order to secure the tubular grille stock to the attaching plates on the inner side of the grille assembly, attaching studs must be brazed, as shown. Be sure that you place the studs onto the tube in the exact position desired for later assembly.



Now, insert the vertical attaching bar to both the upper and lower grille shell assembly. There will be one on either side of the grille shell to be attached.



Here, the attaching bar is being fitted or placed in position next to the plates previously installed. Then each vertical bar is attached, using proper sized bolts, nuts.



Next, insert all of the grille bars into the vertical braces which are to hold your assembly rigid. Then, install bolts and nuts, as shown, to secure same. Note the different lengths of tubular grille stock employed in this particular grille design.



The grille component, consisting of several horizontal tubes and vertical braces, all bolted together to form a single assembly, is now ready for installation in the grille shell or cavity. Check alignment of unit prior to having it chrome-plated.

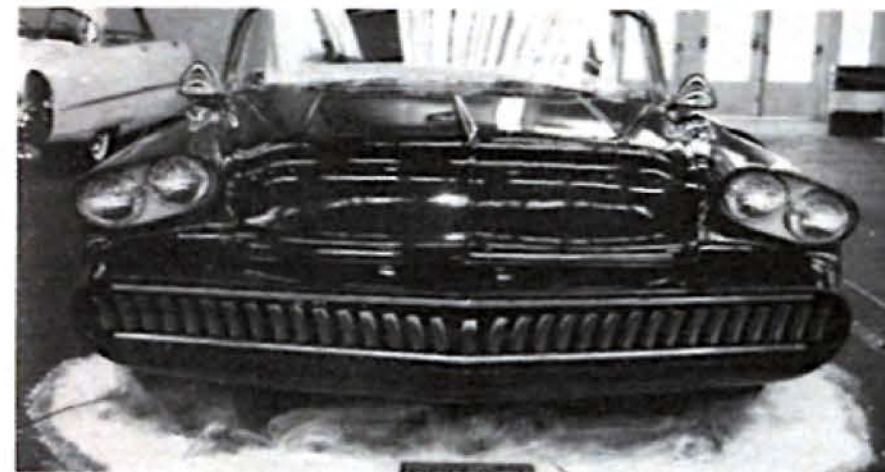


This handmade grille is from the radical school of design, an excellent example of how far out one can go in making up from raw stock a completely different grille. The car is a 1957 Ford convertible. Note how the grille cavity has been reshaped.

**T**HE HANDMADE grille, as illustrated above, offers the student of design an unlimited field for displaying his talents. From the mild conception to the wild, from small-diameter tubes that curve around revamped grille shells to heavy and massive-looking bar stock, from the neat to the near impossible—all can be found in this book without too much trouble. Getting back to the unusual front-end above, this spindly tubed grille actually took careful planning and delicate workmanship, resulting in a spectacular conception that is bound to get glances and comment. It's the type of custom that's studied closely by fellow enthusiasts at car shows. It may not be copied exactly, but it often will give another ideas that he will use in his own spectacular custom.



Here is a 1956 Chevrolet that has been nicely restyled with  $\frac{3}{4}$ -inch bar stock formed to fit an unusually shaped grille cavity. Note the scoop-type, narrowed bumper.



And another '56 Chevy, customized with a grille cavity that has been widened and scooped forward. The inset vertical grille bars are concaved, made of 4-inch strips. Note the two horizontal floating bars above and below strips.



This is a 1959 Chevrolet, radically restyled on the front end with multi-contoured shapes. The frenched grille shell cavity features  $\frac{1}{4}$ -inch center plate made into a box in which three bullets sit horizontally.



You can also modernize the older cars. This '53 Ford has good-looking front-end styling which features  $\frac{1}{4}$ -inch by 2-inch hot-rolled strap metal, contoured around the grille cavity.



This 1954 Chevrolet has a neat frenched grille shell with the center section made of  $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$  U-channel stock which has been chrome-plated. Design characteristics are carried to headlight rims.



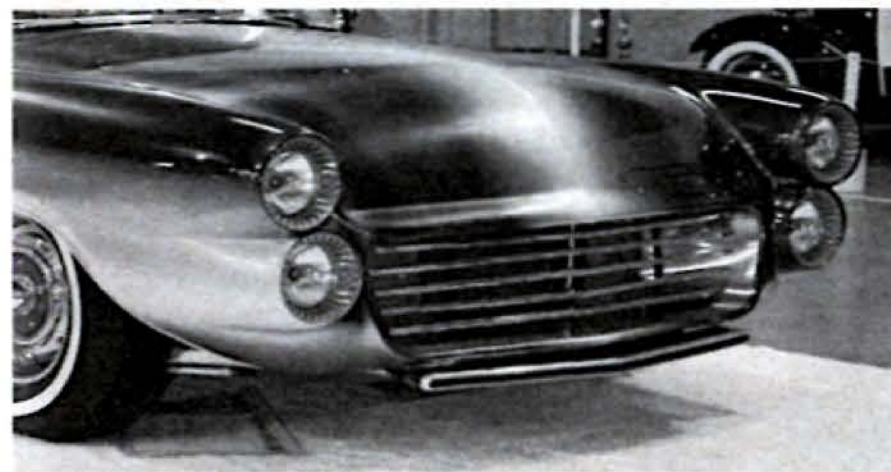
This 1950 Ford uses a Mercury grille shell in which two bullets taken from headlights are welded to one-inch conduit tubing. The small center section is made out of an oval  $\frac{1}{4}$ -inch rod and filled in with five prongs.



This radically restyled '58 Chevrolet has  $\frac{3}{4}$ -inch conduit made into a complete circular center-sectioned grille. It has a diamond-shaped mesh in smallest oval center.



This 1951 Mercury features one-inch conduit tubes V'd to match the hood contour with three vertical bars in its center.



Here's an unusually styled '56 Mercury with a grille shell formed into the shape of a scoop. In the grille cavity the owner has used concave satin-finished stainless steel and  $\frac{3}{4}$ -inch bars taken from square solid stock.



This is a '55 Thunderbird with a frenched grille shell that resembles a Ferrari-type opening. In its center the owner uses  $\frac{1}{4}$ -inch by  $1\frac{1}{2}$ -inch solid bar stock horizontally. Small bullets are also between the horizontal bars; directional lights are on either end of shell.



The center grille bar is taken from a streamlined aircraft tubing measuring  $1\frac{1}{2}$  by  $2\frac{1}{2}$  inches. It has been rolled and contoured to fit into shell. Center is one-inch tubing.



An oldie, this '49 Oldsmobile features a redesigned grille built from exhaust tubing. Vertical concave bars are  $\frac{1}{2}$ -inch U-channel, 20-gauge stock with end sections forming parking lights.



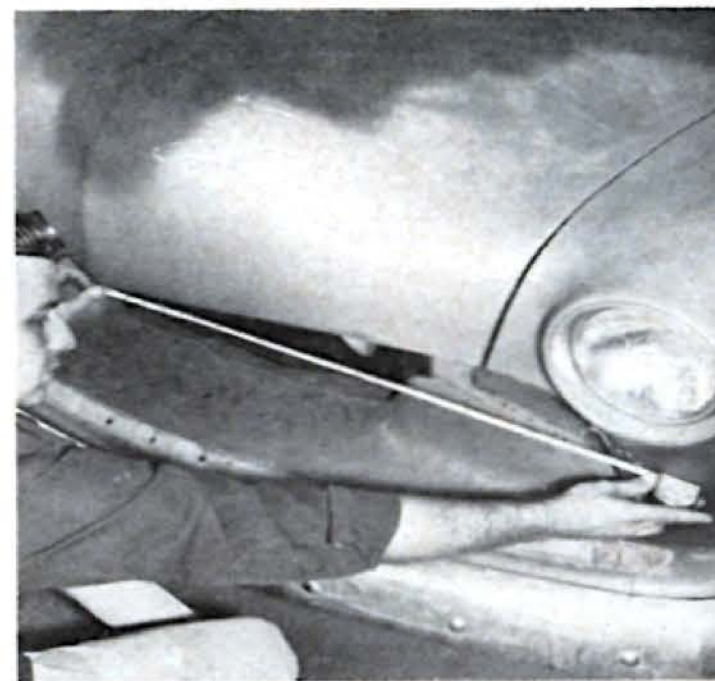
An excellent example of a major grille redesign is this frenched shell, molded into a beautiful one-piece look. This is a '50 Mercury grille shell which has been installed in a 1950 Ford. The Mercury shell has been quite popular in many adaptations.

## ***Frenched Grilles***

**T**HE FRENCHED grille is a major modification that requires a good knowledge of metal-working procedures and should not be attempted by the novice. Tools necessary would include welding equipment and a rather wide assortment of body-working tools. The purpose that the customizer is trying to accomplish with the frenched grille is the one-piece look. This means that the grille shell, front fenders, hood, and splash pans are all molded into one piece. There are various methods of accomplishing this one-piece look. You can use sheet metal, tubes, bar stock, grille inner shells from other makes of cars, etc. In the case of our how-to-do-it, we're using a 1950 Mercury shell in a 1950 Ford. The '50 Mercury shell has long been popular with customizers for front-end adaptations.



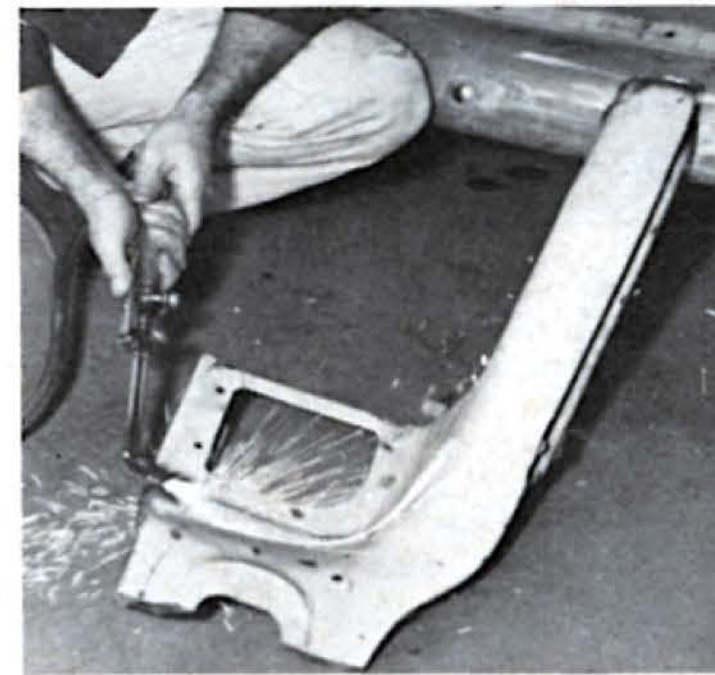
First, set-up your 1950 Mercury grille shell in between the front fenders of the '50 Ford to check for alignment of components. You'll notice how easy it is to adapt the Mercury shell to the Ford grille cavity because of similar measurements.



Even though the apparent fit of the Mercury shell in the Ford opening is going to be nearly perfect, it is necessary to obtain the exact measurements, both horizontally and vertically. You'll find that there will be cutting and torch work on shell.



Transfer the measurements obtained in the previous step onto the Mercury grille shell. Mark the shell where it will be necessary to cut to obtain close fit.



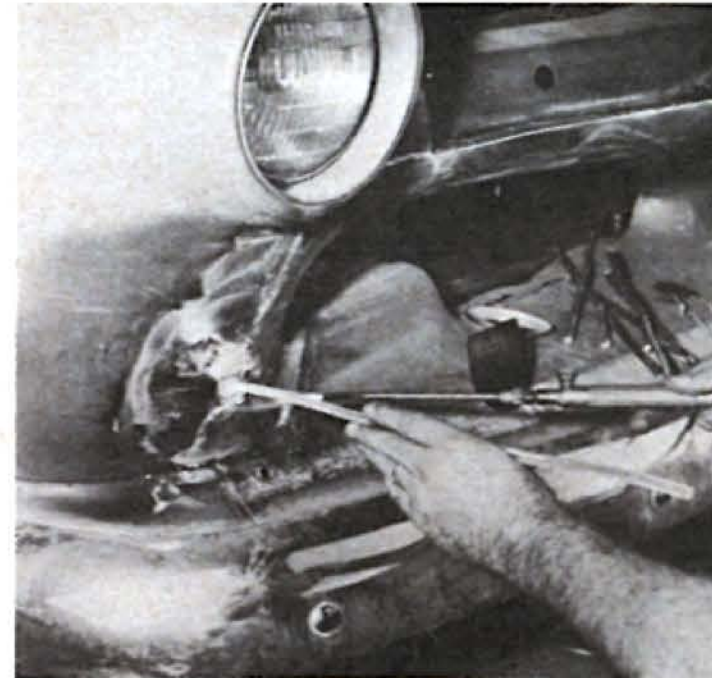
Next, use an acetylene torch or large metal shears to cut away the necessary sections of the Mercury grille shell to provide the proper fitting in the opening.



After the shell has been properly trimmed to fit, check it out to be certain that your fits are very snug and neat. If not, cut away additional metal as required. Rough edges of the metal should be filed carefully so that you don't have gaps.



When you are satisfied that you have the best fit possible, you are now ready to weld the Mercury shell to the front fenders and splash pan. If you are not familiar with this type of work, it would be best to obtain the services of a professional.



Use 70/30 body solder and torch heat to melt into welding sections. This leading process is necessary in order to give proper strength to the metal. If done properly, cracks and other evidence of poor workmanship will not appear in the unit.



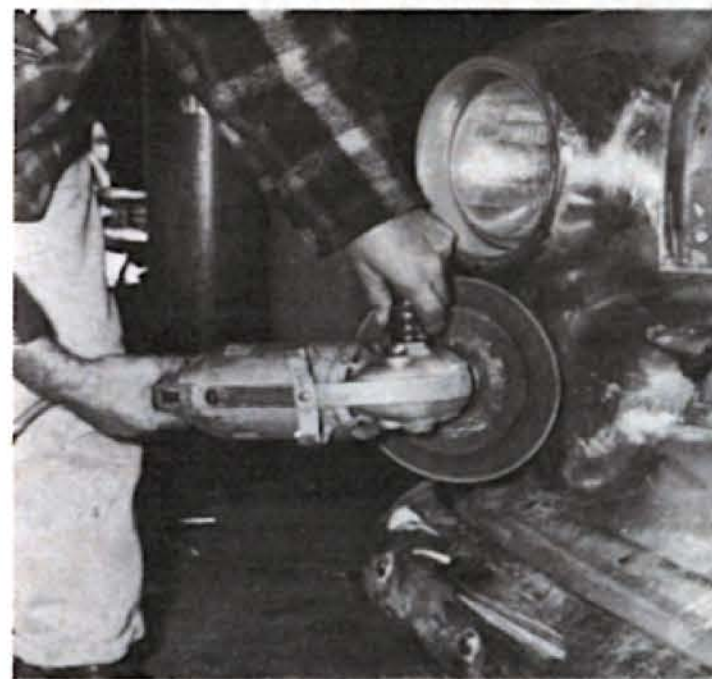
With all leading completed, use a body hammer and dolly to work out all the areas throughout the shell. Again, each of the steps described here is necessary to obtain a smooth, one-piece look to your finished conversion. Be careful.



After welding has been completed, grind off all welds with an electric drill, as shown. Clean grindings with a rotary wire brush attached to the electric drill tool. Good workmanship here is important to provide a really smooth metal finish.



Use torch heat and tinning compound to clean all of your welds before leading the joined metal. After this procedure, wipe off all tinning with a clean cloth. Note the neatness that is readily apparent on this job. Yours should be same.



You are nearing the end. Now use a body grinder with a #36 disc attached very loosely so that you can do a finishing job on the contours of the metal. This is to be done only after you have performed the step immediately preceding properly.



Feather-edge the complete area of the metal-working that was done with 360 wet sandpaper; then apply wax and grease remover before giving the surfaces a coat of paint primer, using a spray gun for the work as shown here.



This 1953 Chevrolet has a beautifully executed frenched grille shell which has been adapted from a 1950 Mercury. The customizer has also used a '50 Mercury splash pan in the lower area with two openings for floating tubes for bumperettes. Center section is made up of a floating single bar to which bullets, vertical short bars are added.

**A**S YOU can see by the examples shown in the photographs on these pages, frenched grille shells add greatly to the front-end appearance of any make car, regardless of year. The prize-winning customs usually have this work done on them, but it represents hours of labor on the part of a good body man and is therefore quite costly. You can use your stock grille bar and french that to your front fenders, or you can use tubes contoured around the opening. Raw sheet metal is also used for this job. Oftentimes, too, swapping of grille shells from one make to another is done, such as a Chevy into a Ford, Merc shells into any number of makes such as the how-to-do-it on the preceding pages.



Here's a 1957 Buick that has tubing which has been molded into the upper grille shell and each of the front fenders. Inside the cavity is a recessed and reverse concaved mesh-type grille.



This 1953 Studebaker has sheet metal broken down from 18-gauge cold-roll and made into a large grille shell opening and frenched into the front fenders. The center section is from a Kaiser, recessed about six inches.

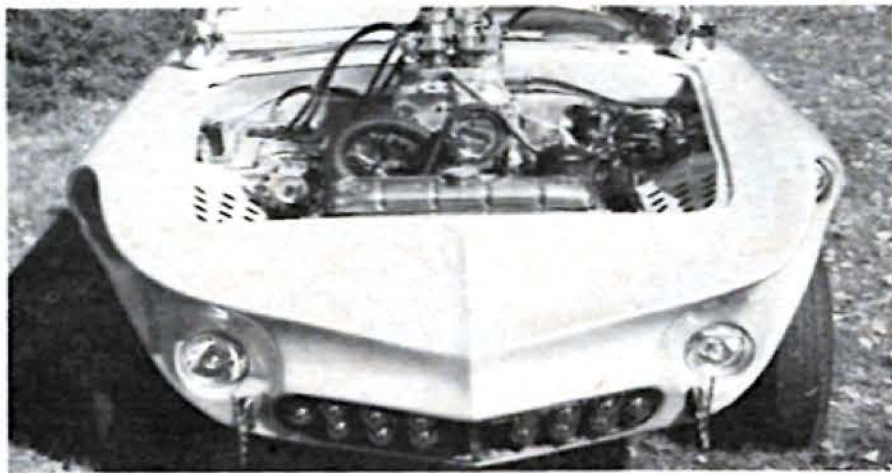


Here's a 1954 Chevrolet which features a stock grille shell which has been frenched into the front fenders and splash pan. The one-piece look is quite evident here.



This 1954 Ford uses tubing, U-bends frenched onto the '53 grille shell. The metal has then been molded in completely with the front fenders and splash pan.





This radically customized 1955 Thunderbird uses weird contours of 3/4-inch conduit tubing to create the grille shell and sculptured front end into headlights. The amount of work involved here is simply fantastic and should not be attempted by an amateur.



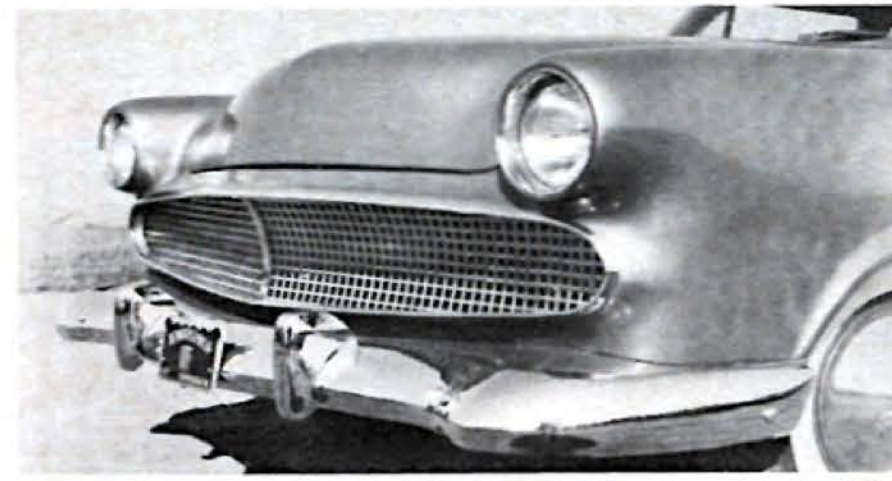
Here a 1957 Thunderbird has a molded-in frenched grille using tubing and a Studebaker lower grille pan. Center section is floating.



This 1954 Ford uses '55 Mercury headlight sections and plates frenched into hood and front fenders to form the grille shell opening. Result has given the front end a massive appearance.



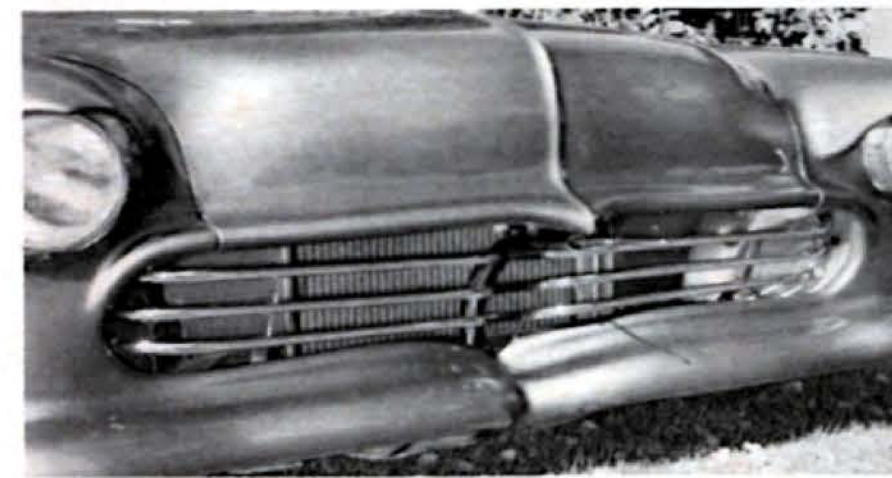
Radically designed, here's a 1948 Studebaker which has a '49 Mercury grille shell adapted to it. The shell has been made into a double roll, frenched into the pan and pancake-type hood.



This 1954 Ford uses a '53 Ford grille shell which has been made in two pieces, reversed for upper and lower sections, and the entire unit molded into one large shell opening.



This 1949 Plymouth has employed U-bends from exhaust tubing, cut in half, and then V'd to match the grille contour and finally frenched into the front fenders.



U-bent exhaust tubing is shaped into weird contours and sculptured to match the front end of the 1955 Chevrolet. Note how lower pan matches the V in the center section of the hood.



This 1955 Ford pickup has a neat grille shell frenched into the pan, using stock components of fenders and hood. Workmanship here is excellent as evidenced by smoothness of all molded-in metal surfaces.



Here is an excellent example of a well-executed bumper-grille combination. This 1955 Chevrolet uses a bumper from a '57 DeSoto, cut and reformed to fit the front end which uses two sections from a 1953 Studebaker pan. A mesh screen is used for backing behind bumper, while inside the bumper itself, a perforated mesh is used.

## Bumpers

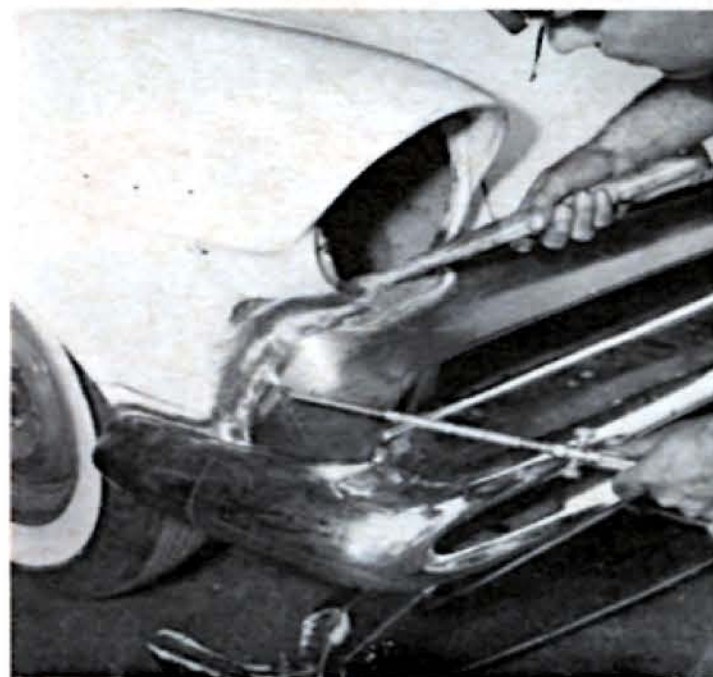
**T**HE 1957 DeSoto bumper assembly has been a favorite with customizers because of its unique design characteristics although many other adaptations from other makes of cars have been made over the years. This type of transformation is usually made by the radical customizer who doesn't mind a lot of fitting and metalworking procedures. It is not for the novice. As you can see by the how-to-do-it photographs, welding, cutting, and the usual finishing of molded metal are steps that are necessary to perform a bumper-grille combination assembly. The results, of course, are well worth the effort and many a customizer has received trophies and favorable comments at car shows.



First, remove the complete front end on your stock automobile. Then, place a new 1957 DeSoto bumper unit in position to check the alignment of same to determine ultimate position when completed.



Now install and fit the Studebaker pan to determine the necessary cuts to be made in this unit. In this case, it has been decided to take a section out of the center of the pan unit to make the fit desired.



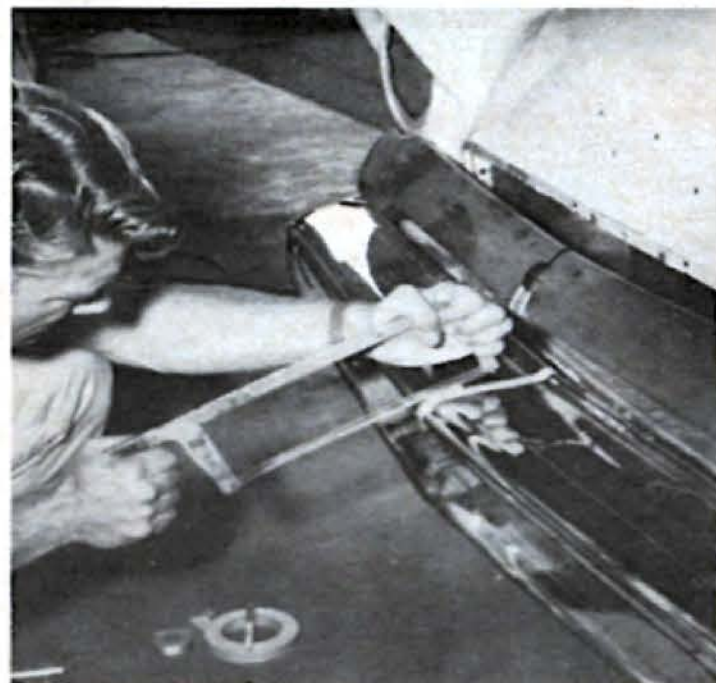
The next job is to weld the Studebaker pan unit to the front fender, as shown. This kind of work requires metalworking skill and should not be attempted by the amateur. It is best to use professional.



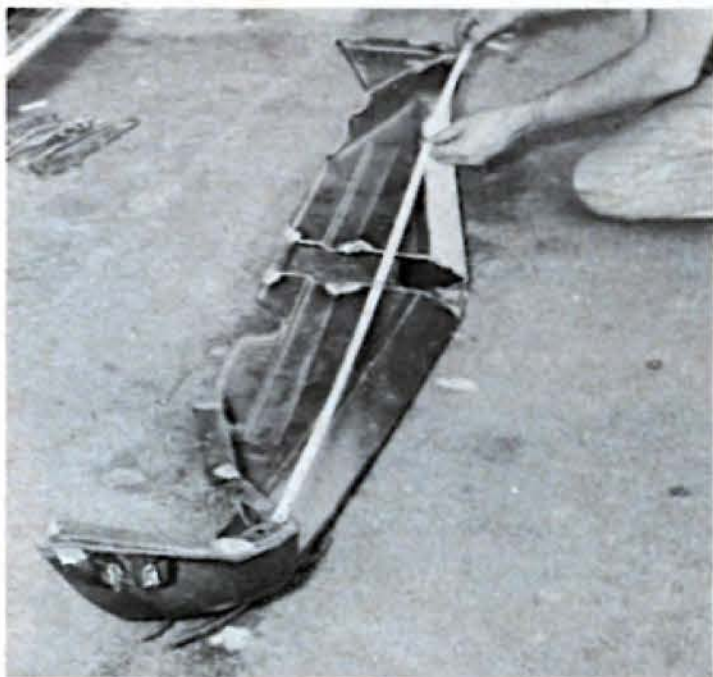
Measure the ends of the bumpers to determine the cuts to be made in each front fender. The completed bumper-grille is to fit snugly against fender; therefore this lower section must be cut quite precisely.



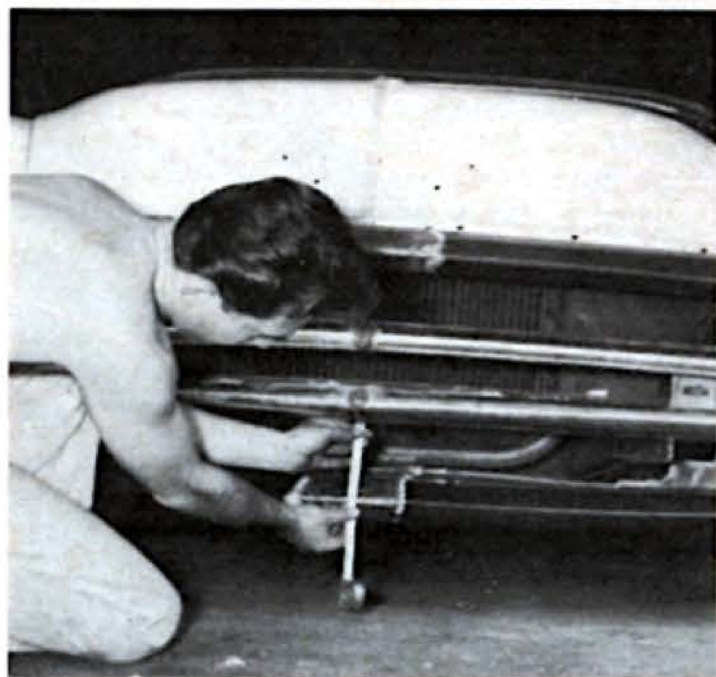
With the bumper in position, take necessary measurements to determine cut to be made in the bumper unit to provide a close-tolerance fit with car's front-end.



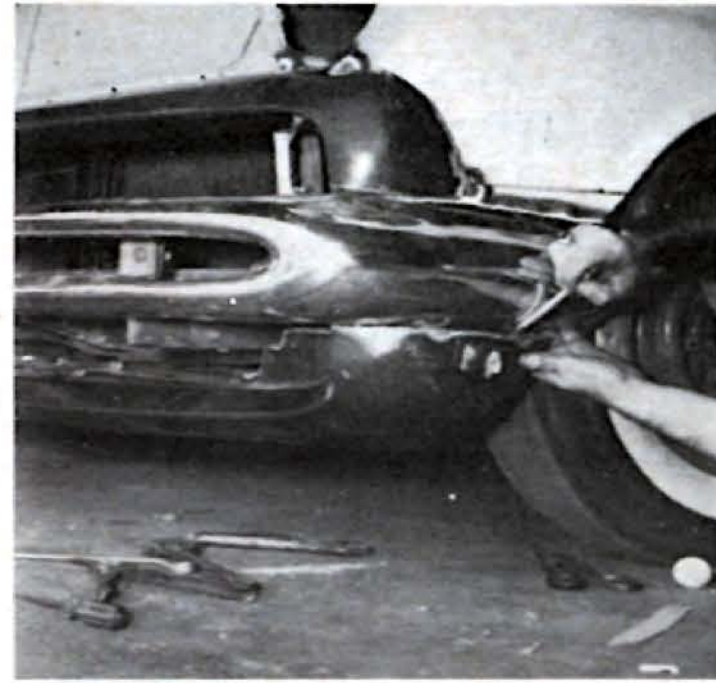
Once you are satisfied with the measurements and positioning of the bumper unit, take a hacksaw or torch to cut the bumper center section. Pieces should fit.



Also to be fitted are the lower and upper pan units. Take measurements as indicated before cutting away any metal from center section. Job is not easy.



Next, measure the vertical opening from the bottom of the bumper unit to the upper part of the pan assembly. This is to provide proper spacing, alignment.



Measure the ends of the pan to determine location of holes that have to be drilled for the necessary attachment of the bumper. Holes are drilled on sides.



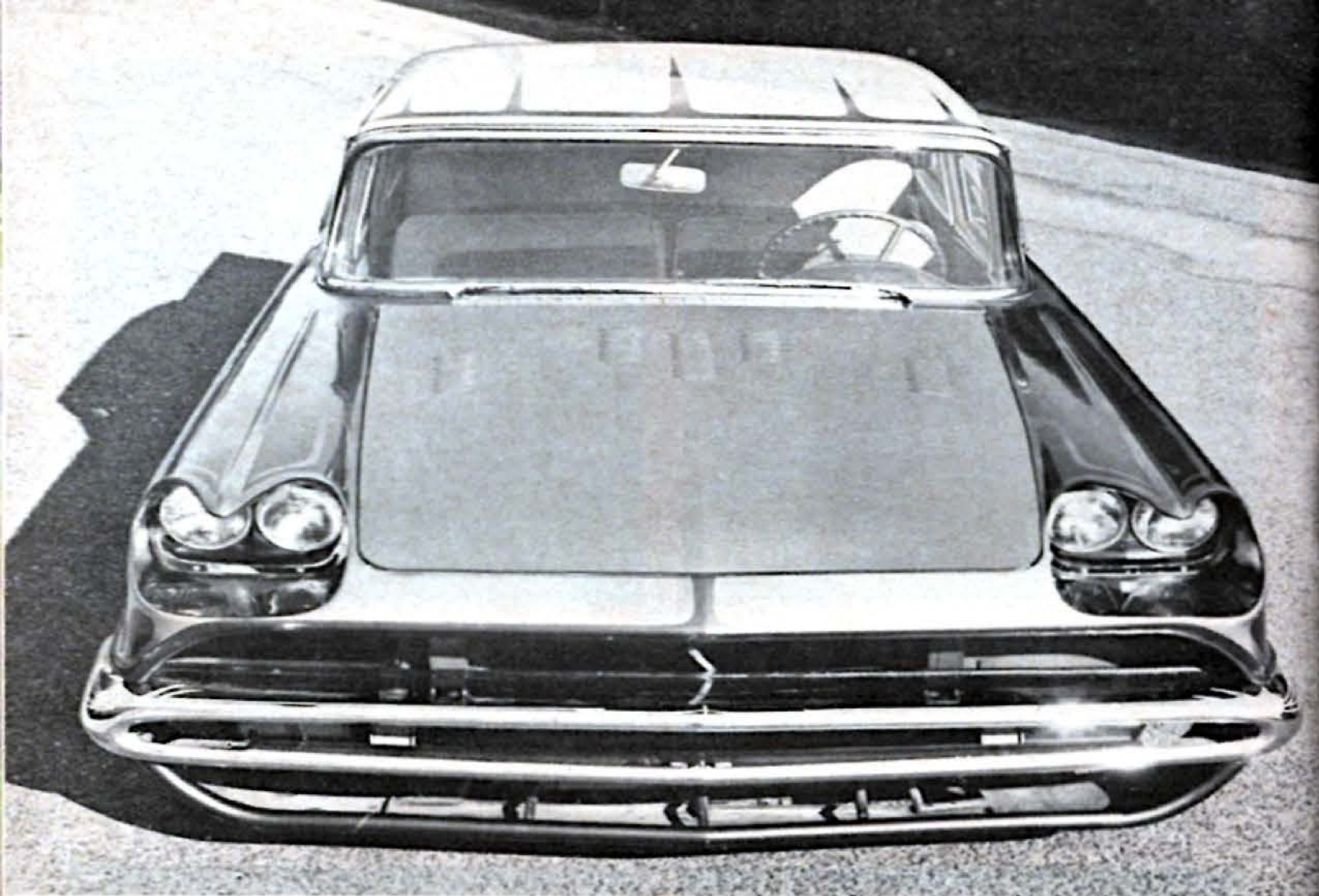
Since the bumper wrap-around extends too far back into the front wheel area, the aft section of the bumper on both sides are cut, eliminating tire rubbing.



After the pan has been welded to the front-end sections, the metal must be cleaned, tinned, and then leaded to provide the desired contours. The metal is then filed, sanded, and ground smoothly.



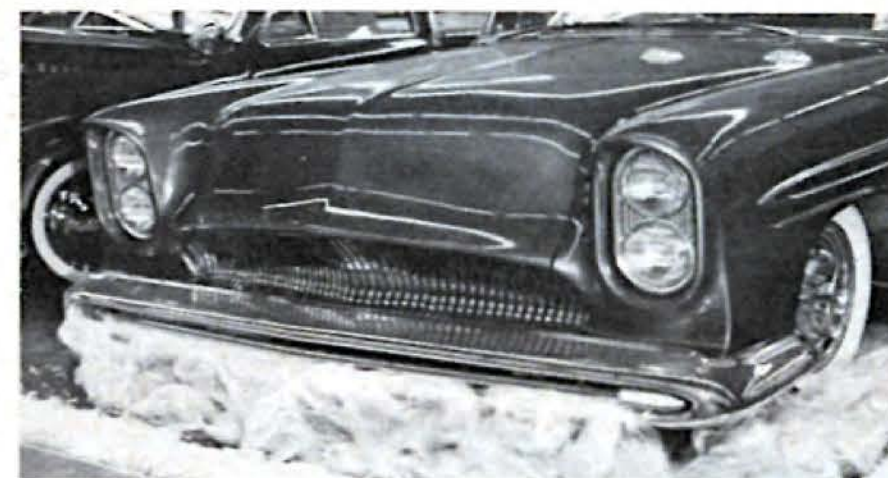
The metal is then feather-edged with 320 wet sandpaper, waxed and grease removed prior to application of a primer coat. After priming, surfaces should be sanded smooth before finish painting.



This is a fine example of a bumper-grille combination. The 1957 Ford uses a frenched grille shell built from exhaust tubing, contoured as desired, and combined with a bumper from a 1957 DeSoto. Note recessed headlights on this unusual custom car.

**E**XCELLENT examples of bumper-grille combinations are shown on these pages. The above job, for instance, gives the '57 Ford a wide and low front-end appearance that is highly becoming, but don't think for a minute that it was an easy transformation. The number of hours spent on fitting, molding, cutting, welding, finishing is tremendous. In all examples except the Thunderbird, the 1957 DeSoto bumper has been used, a good indication of the adaptability of this stock unit. Note how each of the customizers exercised his individual taste and design ingenuity in creating a new front-end appearance for his car.

This 1956 Chevrolet has a '57 DeSoto bumper attached to the lower end of the fenders, using a floating bar with plastic ends within the center section. A Kaiser grille is used for backing behind the molded grille. Workmanship is good.



Here's a 1956 Oldsmobile which has the popular '57 DeSoto bumper unit. In its center expanded metal is used. A late-model pan is used on bottom side of the bumper.

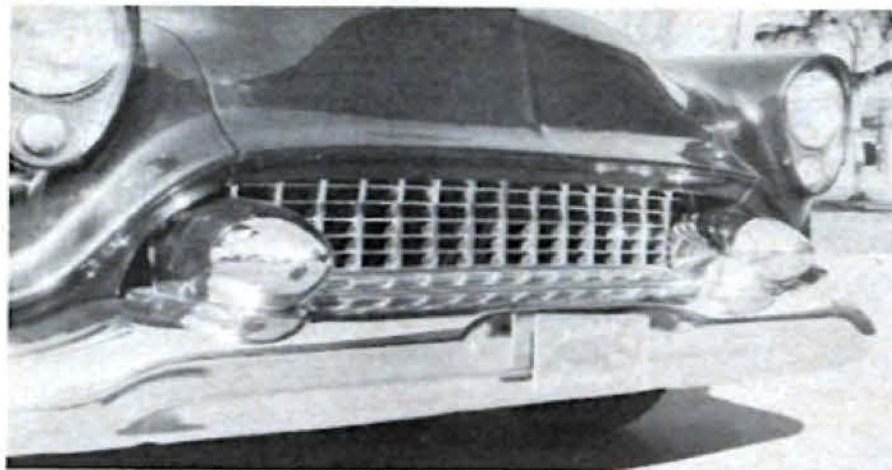


This 1954 Oldsmobile uses a '57 DeSoto complete bumper with a lower pan installed on the bottom section of front fenders and hood. Note drawer pulls installed between each opening section. The entire assembly glitters like diamonds in a jeweler's case.



This 1955 Thunderbird has '55 Pontiac bumpers inset in the '55 Pontiac shell openings. A Studebaker lower pan is used. All metalwork has been molded in to provide one-piece look.





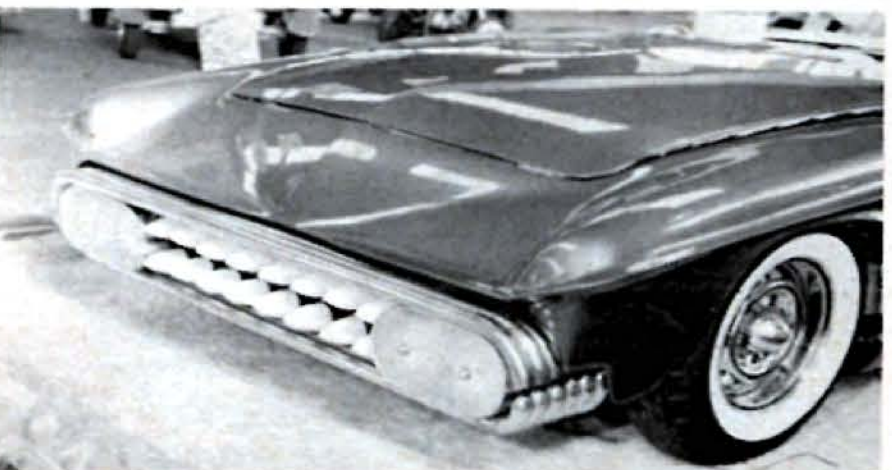
**This 1954 Oldsmobile has bullets from a '55 Buick off the stock bumper. Bullets penetrate into grille opening. Center section is '55 Chevy.**



**Here's a 1957 Chevrolet which features a front end with '58 Dodge front bumpers installed into a grille shell formed from a '53 Studebaker pan. Note split grille opening.**



**This 1954 Mercury has a reformed front bumper attached to front end. Tubes run horizontally and wrap-around. Note vertical tubes in center lower section.**



**This radically restyled Thunderbird employs exhaust tubing, U-bends and straight sections, formed to fit lower end of grille shell. Note Cadillac taillights in center section of opening which have been frosted.**



**This '55 Mercury uses '55 Buick bumper bullets welded onto Mercury stock bumper end sections. Round rod, concaved and mounted horizontally, form the center grille.**



**This 1956 Chevrolet has a '57 Dodge front bumper. Note pancaked hood. Lower section has small Studebaker pan.**



**This 1954 Oldsmobile has a complete bumper from a 1957 DeSoto. The center sections are filled with '59 Buick grille squares.**



**A complete bumper assembly from a 1957 DeSoto is installed in the front end of this 1957 Ford. Perforated mesh is used for backing and drawer pulls are installed.**



Simplest of all front-end conversions is a bolt-on custom grille, obtainable at your local speed or custom accessory shop and manufactured by California Custom Accessories of Los Angeles, Calif. They have solid tube and a half-tube stainless.

## Tube Grilles

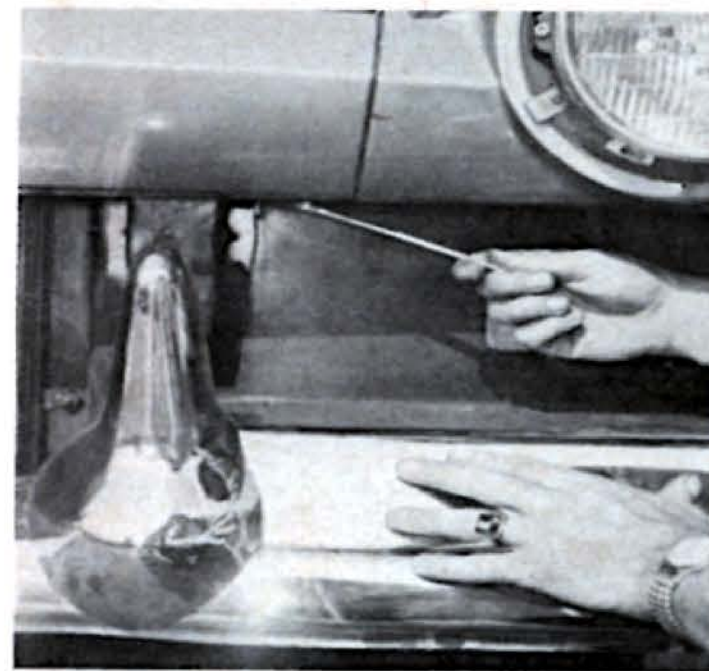
**P**OPULARITY of tube grilles is because they are readily available from automotive specialty shops throughout the country. Most are manufactured by California Custom Accessories, 1807 W. 65th Street, Los Angeles 47, California. Actually, there are two types of the bolt-on tube grilles available. One is known as full-tube grille which is the more popular type and, incidentally, the more expensive. The complete circle tube (full-tube) is chromeplated and is available for 1952 through 1959 Fords and 1955 through 1959 Chevrolets for \$32.50 per kit. The other type is simulated tube with the back-side of the tube open. It is made of stainless steel and sells for \$19.95 for all cars; it is available for 1949 through 1961 Fords and 1955 through 1961 Chevys. They are also available for all Falcons and Corvairs.



First step in this simple conversion is to remove the stock grille. The car, in this case is a 1957 Ford, but there are many grilles available to fit various make and model-year cars. See text for details.



Next, attach the tubes in your kit to the vertical angle braces, as shown. The installation can be made by an amateur with only the barest essential tools. Also attractive to customizer is the low cost.



Remove two inner grille shell bolts that will attach to the vertical angle bars that have been already assembled to tubes.



Next, install the vertical inside angle braces on either side of the grille cavity. These braces are provided in grille kit.



After the vertical angle braces have been fitted, bolt same to the bottom pan and upper shell, using standard bolts, nuts.



Next, install the completely assembled grille into the shell opening, using care not to scratch the nicely chromed tubes.



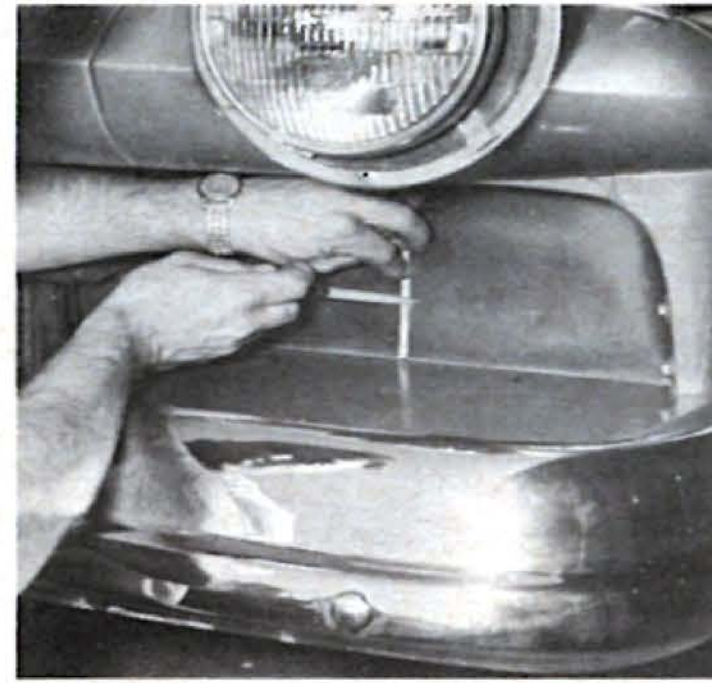
Use circle spacer, nut, and bolt to attach the tubular grille to the inner angle straps or braces installed to the shell.



Now use a screwdriver to tighten the grille assembly to the vertical braces. There are six main attaching points.



If parking lights are to be installed, certain modifications must be made prior to the installation of the grille assembly previously shown in step-by-step photographs. First, measure the parking light to determine its location under headlight.



Transfer this measurement (of the parking light) to the back pan area. Its location can be moved to right or left as desired, but the most logical place for positioning of the directional light is directly underneath each headlight unit.



After marking off the area on the back grille pan that is to be cut for the directional light installation, you may use a drill or air cutter to cut out this section of metal. Holes should be drilled on either side of the cut-out area for bolts.

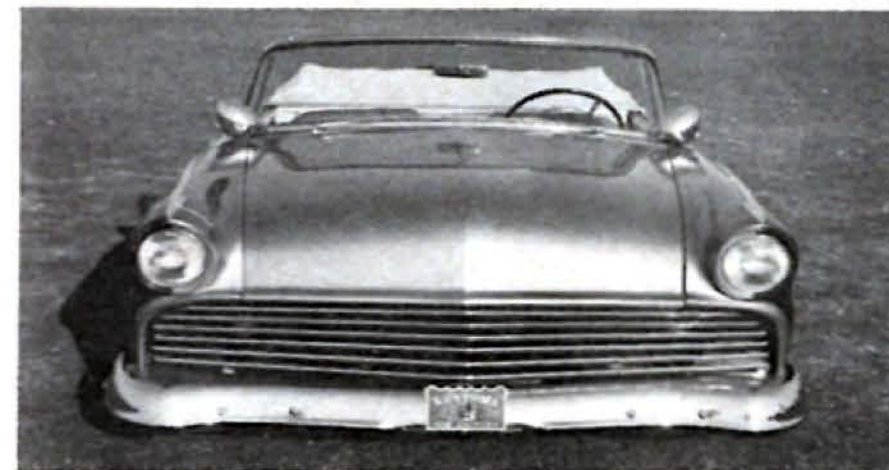


Now, you are ready to install each of the directional lights. Before doing this, however, it would be a good idea to smooth off the rough edges of the cut metal with a machine file to provide a workmanlike job. Edges could be sanded.



This 1959 Chevrolet has a front end that's been restyled nicely and reasonably by the simple method of installing a custom grille from California Custom Accessories. Most any car owner can perform this screwdriver and wrench job. All parts provided.

**E**XCELLENT examples of the bolt-on type tube grilles are shown on these pages. You'll notice that some of the grille shells have been frenched or molded in to give that one-piece look, but this procedure isn't absolutely necessary to obtain a different-looking front end. This transformation of the front end of your car, without the expensive frenching-in procedure described in another section of this book, is without a doubt the cheapest. Prices range from \$19.95 to \$32.50, depending on whether you want the  $\frac{3}{4}$  circle tube grille or the full-tube grille.



This is a 1956 Ford with a horizontal tube grille assembly that's available from California Custom Accessories or your local automobile specialty shop.



This 1958 Ford also features a stock custom grille kit consisting of horizontal tubes. No modifications of kit assembly was required for this installation.



This is a full-tube grille in a 1959 Chevrolet, showing how a purchased custom grille can be used with a rolled grille pan.

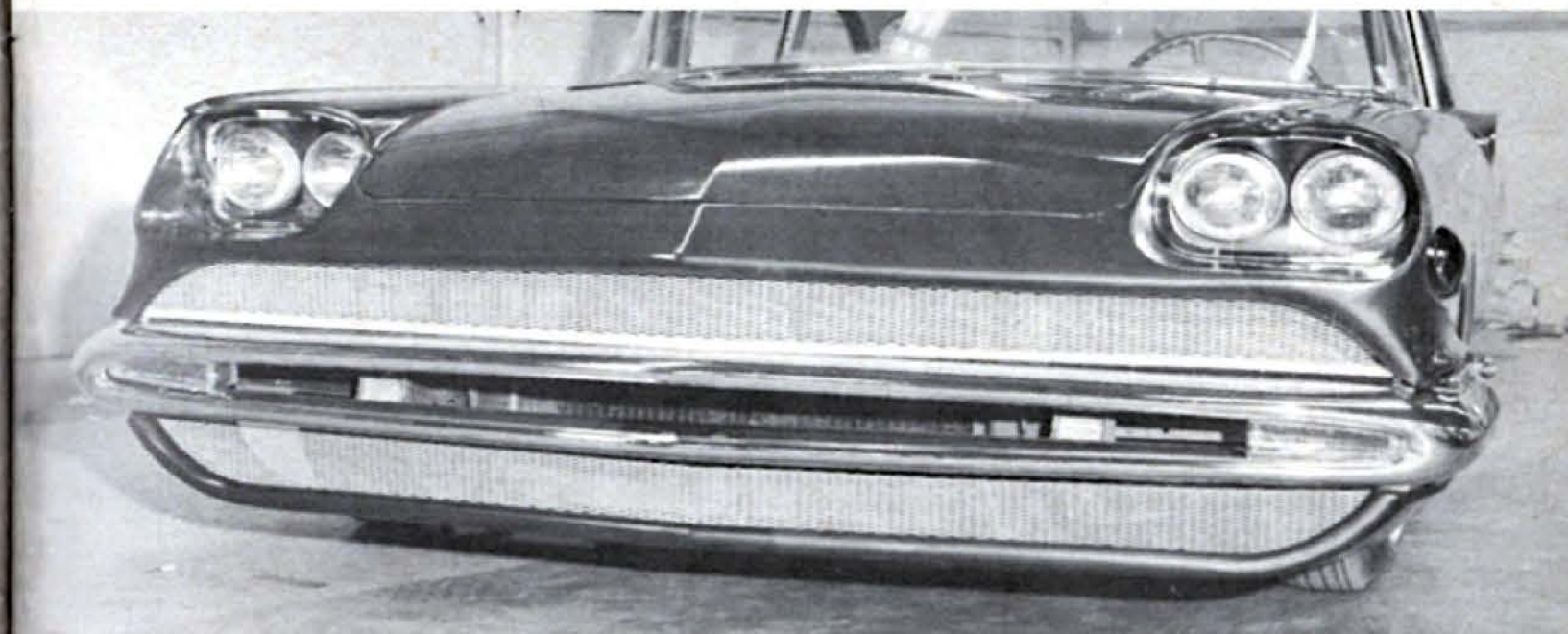


This is a half-tube grille inserted in a 1956 Chevrolet. It is available from California Custom Accessories or your local automotive accessory store for \$19.95.



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