

WHY

is "Western Model"
the largest Model &
Hobby distributor in
the West?

BECAUSE

we serve only
Western Dealers

...SINCE 1933

MODELERS—Patronize Your Local Dealer

WESTERN MODEL

Distributors

LOS ANGELES

1576 West Adams Blvd.
Los Angeles 7, Calif.
(Phone: PArkway 2161)

OAKLAND

1106 Fifth Avenue
Oakland 6, California
(Phone: TEmplebar 4-9171)

If you take pride in your solids

Consolidated

Kits are for you!



Save 4 to 6 hours building time with our famous
REDI-CARVED FUSELAGE

More for your money in every kit!

DELUXE SUPER MINIATURES
\$1.25 ea.

Focke-Wulf 190
Hawker-Typhoon
Grumman Hellcat

Jap Zero
Republic P-47
N. Amer. P-51

Boeing B-17
Kingfisher
Lockheed P-38

DELUXE GIANT SOLIDS

Most above aircraft available also in larger scaled kits—
from \$2.50. Complete list with order.

NAVY TYPE FLOATS—Kit \$1.50

Edo Design, balsac covered. 22" long, sustains 3 lb. weight.
Detailed plans.

MAIL ORDERS Filled (No C.O.D.)

HELL RAZOR

Complete construction kit includes

With **MAGNESIUM ALLOY BOTTOM**

10 prize awards for performance!

Class 'A'.....\$5.95
Class 'B'.....\$6.50
Class 'C'-'D'.....\$6.95



FREE 'T' SHIRTS AWARDED MONTHLY

for best, confirmed speed flights with **HELL-RAZOR** in Class A-B-C-D

HELL-RAZOR TROPHY ANNUALLY
for best, annual flight with **HELL-RAZOR**.
Separate Trophy for each class

Consolidated

3087 Third Avenue, New York 56, N. Y.

CANADA'S

LARGEST AND MOST COMPLETE HOBBY SUPPLIERS

IT IS AS SIMPLE AS A-B-C
If You Want The BEST In

AMERICAN BRITISH CANADIAN

Hobby Merchandise

TRY US

Dealer enquiries
solicited.

cyanide, but don't be careless with any kind of poison.

Place the jar in the double boiler with a wooden grill in the bottom and heat to a "coffee cup heat." Most books say 100 to 120 degrees Fahrenheit. Stir now and then with a glass rod and add distilled water to replace that which evaporates. The temperature is not too critical as the current is to be adjusted to the heat. In general, if the plating is too heavy, as described later, cut the heat down. If too light, raise the temperature of the bath. Use of the rheostat (window roller spring) accomplishes a similar result with variations of one electrical current.

Solder two of the bus bars together with a Y connection, using heavy stranded wire, for the outside bus bars that are to hold the lead plates for the positive connection. In most plating the positive electrode is the metal deposited. In chromium plating, the metal comes from the electrolyte and the plus electrode is inert. The piston is suspended on wire at the center bus bar electrode which is negative. There should be spring tension in the wire holding the piston to insure a good electrical contact. *remember, outside lead plates positive, inside piston negative.*

Either lead can be run through the window shade spring. Connect one end to the bus bar and the lead from the battery is placed in the coil at the proper location to give the necessary resistance for plating.

Above all, be sure the piston is clean. Commercial platers apparently use acid cleaning followed by a "bright dip" solution made of several acids. I started with bright dip but discarded it in favor of mechanical cleaning which worked better and was less trouble. First scrape and sand the carbon off the piston head. Then run the piston and the cylinder (it must be free of oil for testing) through three baths of white (unleaded) gasoline. While the piston "soaks" a minute or two in the last bath, wash your hands clean with soap to remove all oil. Dry the piston on a clean rag. Give the piston a slight sanding with very fine sandpaper (250 to 400) to remove oxidation. Place on the spring wire, dust the sanding off with a clean rag and insert in the bath on the negative bus bar.

Now let's judge the deposit. Start with too little rather than too much current. If plating is in process, bubbles will appear at the piston and fumes will rise. Lift the piston attached to the bus bar to observe the plating. Lower or raise the current with the spring rheostat until the bubbling is just above the intermittent stage. As you become expert, the bubbles will indicate the nature of the deposit. The ideal is a mirror polish plate such as you have on your car. Mildly frosty deposit is satisfactory also.

The stages of deposit, from nothing to too much, follow. The temperature of the bath and the strength of the electrical current determine the degree of deposit. Correct with the rheostat and if necessary change the heat. The stages of deposit are:

1. No deposit. (Too little current, too low heat.)
2. Milky. (Exactly like milk on the piston. Raise current or temperature.)
3. Bright. (This is ideal.)
4. Frosty. (This is O. K. Cut current on next one.)
5. Treeing. (Like hoar frost. Lower both heat and current and if absolutely necessary dilute electrolyte with distilled water.)
6. Burning. (Brown and black. Ease up on everything, and how!)

Finally, here are some suggestions. On many motors, it may be best to plate the top third of the piston heavier than the bottom part. Lower the piston some 3/8 inches in the bath and plate for say three minutes and then submerge the whole piston for the complete plating. Some motors have slightly warped piston skirts and it is unwise to plate these as heavily as the top of the piston.

If you plate for an extended period, rotate the piston every few minutes to insure uniform deposit. On short plates have the piston pin parallel to the bus bars so as to plate slightly heavier at the sides where wear is greatest due to piston slap.

If after one plating and after piston is used, it may be necessary to re-plate, "cut" the old plate slightly with HCL acid the same as for removing deposits.

Pistons may be safely plated without removing rods and piston pins if all oil is removed from the assembly.

After plating, clean up the outfit. Remove the lead plates and wash everything. Before using again, clean the lead plates with a wire brush and polish the bus bars and all connections. All electrical contacts must be clean and tight.