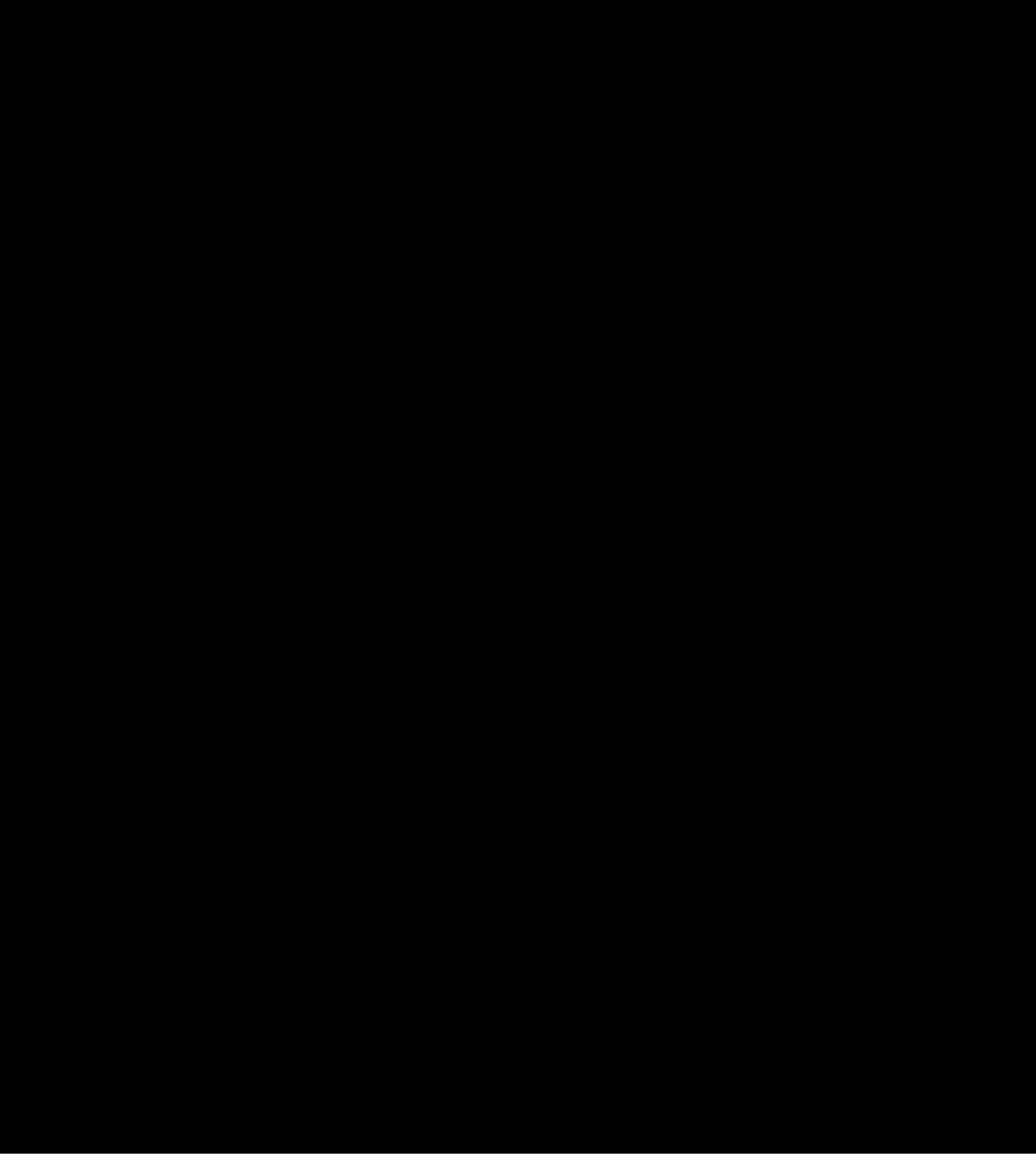




The Part of Paint in Winning the War

G. A. Toussaint

NOT the least important of all materials that have played an indirect part in bringing the titanic struggle "over there" to a final and successful conclusion is paint.

Strange, but true, the average American never thinks of paint as a war necessity, or as having any direct relation to, or bearing on, war activities. Nevertheless, our essential industries are being driven at top speed in turning out material and equipment necessary to the maintenance of war and consuming vast amounts of wood and metal, which have to be painted. No other class of material has a greater diversity of uses, or enters into more phases of war production as an aid in making the prime instruments of warfare more efficient, durable and effective than does paint.

Perhaps the most vivid example is the use of paint for camouflage. This particular field covers troop trains, ordnance, motor-trucks, tanks, roads and all types of ships.

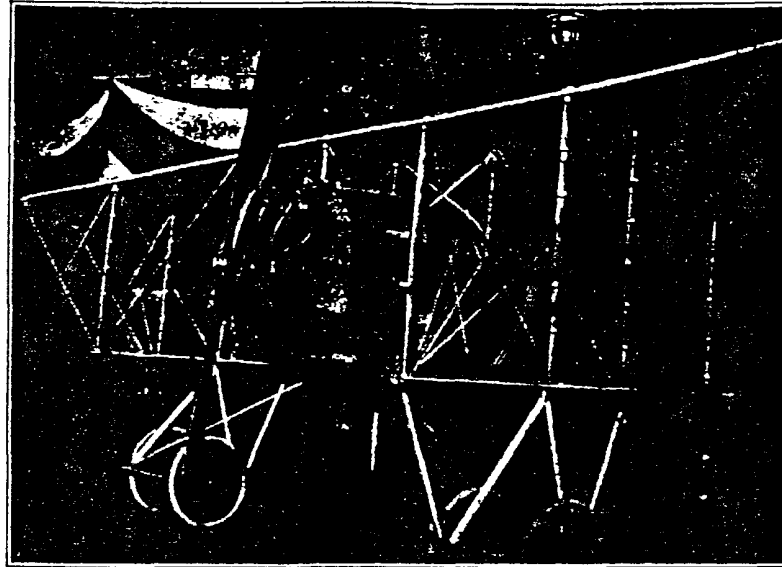
In addition to being less conspicuous on the high seas, the lines of a camouflaged ship are so broken up that a submarine finds difficulty in locating its center, thus making a very uncertain target for the deadly torpedo. Paint in this instance is used as an aid in protecting both life and maritime property.

The camouflaging of troop trains, ordnance and

motor-trucks serves to make such objects less conspicuous to enemy observation.

Aerial photography is likewise hampered. Camouflaged objects are not distinguishable at high altitudes. Burlap or canvas camouflaged and spread on the ground cannot be distinguished from the landscape at an altitude of 1,000 feet, consequently it is necessary for enemy observers or photographers to fly at low altitudes in order successfully to conduct their operations, which brings them within easy range of anti-aircraft guns.

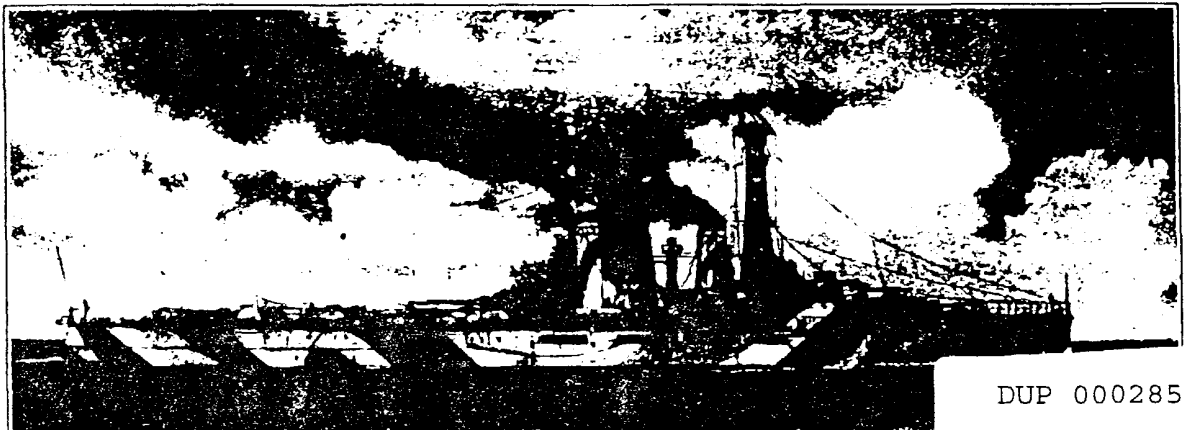
Uncle Sam's consumption of paint at the navy yards and ship-building plants is enormous. Every inch of wood and metal that enters into ship construction must be painted. Special



Paint and Varnish Preserve the Aeroplane

types of paint are available for different surfaces according to their nature and the conditions they encounter in actual use. Hulls must be painted with special paints to protect them from the salt water, and more especially is this true of metal hulls, where corrosion from the salt water would soon render them unseaworthy. The marine line includes paints and varnishes for hulls, decks, cabins, inside woodwork, machinery and smoke-stacks or funnels, all of which represent a highly specialized branch of the paint industry.

These materials are not used merely for decorative purposes. Such surfaces must be protected and made



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as impervious to severe exposure as possible, permitting use for the longest period without repair or replacement.

One of the most highly sensitized instruments of modern warfare is the flying machine, every constructive detail of which is based on the most unerring accuracy. Paint specialties find many uses here.

Propeller blades, made of a certain wood, must be very smooth in order to reduce wind resistance to a minimum. Wood filler and special varnish gives the right surface, and one that also protects them from moisture and dampness.

All wood used in aeroplane construction has to be specially finished. Even the wings are coated to make them tougher and more durable. While the quantity of material consumed in this branch of the military organization is small compared with others, yet its use is important and necessary in giving stability and durability to parts which are subject to severe strain and exposure.

This is another large and important field. When the United States entered the war, unusual speed was necessary in the establishment of training camps. As a result, thousands of portable houses were secured by the Government for temporary use. All of these houses were painted, both

inside and out. Since that time the additional camps which have been laid out and erected have called for the use of vast quantities of paint.

As cleanliness and sanitation are the watch dogs of camp life and essential to healthy and vigorous manhood, paint has done its part in providing sanitary and washable surfaces that stand for the highest ideals of cleanliness. Hardly a limit can be placed on the number of smaller, but equally important uses of paint, varnish, enamel, lacquer, stain, filler and shellac for war purposes.

Floating mines are covered with baking japan in order to prevent rust and corrosion. Assurance of the performance of their duty at the right moment depends in a large degree on this protection.

Varnishes and lacquers are used on shell cases to protect them from corrosion and insure a smooth-fitting surface to gun breeches. This protection is needed, not only in transportation overseas, but on the battlefields.

Ammunition wagons, gun carriages and all rolling stock used on the field are painted. Ammunition boxes

are protected from moisture and dampness with paint coatings. Gunstocks require special finishing material to make them resistant to mud, water, heat, cold and other conditions encountered in service.

Field tents and tarpaulins are all coated to make them waterproof and durable.

So in this vast war program we find hardly a single object but what requires the use of paint, either in whole or part. Large paint manufacturers have been called upon to supply these abnormal quantities of paint materials for Government use and supply them in undue haste. Certain raw materials have been hard to get, among them lead and zinc, which are prime pigments entering into a great variety of paint products.

Railroad transportation has been slow and uncertain. Labor has been scarce. Packages have been difficult to

obtain due to the necessity of packing foodstuffs in tin containers for shipment abroad—and yet Uncle Sam has had to have the goods and have them quickly.

All these conditions the manufacturer has had to overcome, and in the face of an unprecedented demand. Certain of the important manufacturers with exceptional facilities have surmounted all these obstacles to a remarkable degree



Floating Mines are Painted to Prevent Rust and Corrosion

and met the emergency with the same spirit of progressiveness as the boys have already displayed "over there."

Uncle Sam is not only a liberal purchaser of paints, but an exacting one as well. All his requirements are based on formulæ which have been developed by the governmental staff of technical experts, covering paints, varnishes and enamels for all types of work. These formulæ are used as a standard in soliciting bids, and all material must measure up to Government specifications in order to be acceptable. Paint manufacturers whose facilities enable them to turn out material in accordance with Government standards have been instrumental in keeping pace with the needs.

As a result, civilian demands have been very greatly curtailed, inasmuch as paint dealers, in many instances, have been unable to obtain sufficient paint for their trade.

Although there are more important elements that enter into military success, yet paint is an absolute necessity for which there is no substitute, and must be accorded its just tribute as a war-winning commodity.

Refinishing the Old Car

Henry Ferris, Jr.

IF the only value of an automobile were its utility, all cars would be "flivvers." There would be no object in paying \$2,000 or \$3,000 for an automobile if you merely wanted a quicker means of transportation.

In other words, a large part of the satisfaction of ownership lies in the feeling that a good-looking machine is a personal, business and social asset.

The fact that the farmers of this country alone purchased during 1917 over \$600,000 worth of automobiles per day is a vivid illustration of the extent to which the automobile now enters into the life of the nation.

Buying an automobile is no longer a simple matter, even when one can afford the 1919 price advances, for the Government has utilized the steel and the labor and the productive capacity of the automobile manufacturing plants for war purposes. The necessity is, therefore, upon us to make the old car last at least another year, and, as good Americans, we are entirely willing to do so.

The result has been that many busy men have accepted the shabbiness of the old car as a necessary evil thrust upon them by circumstances and therefore unavoidable.

It is not!

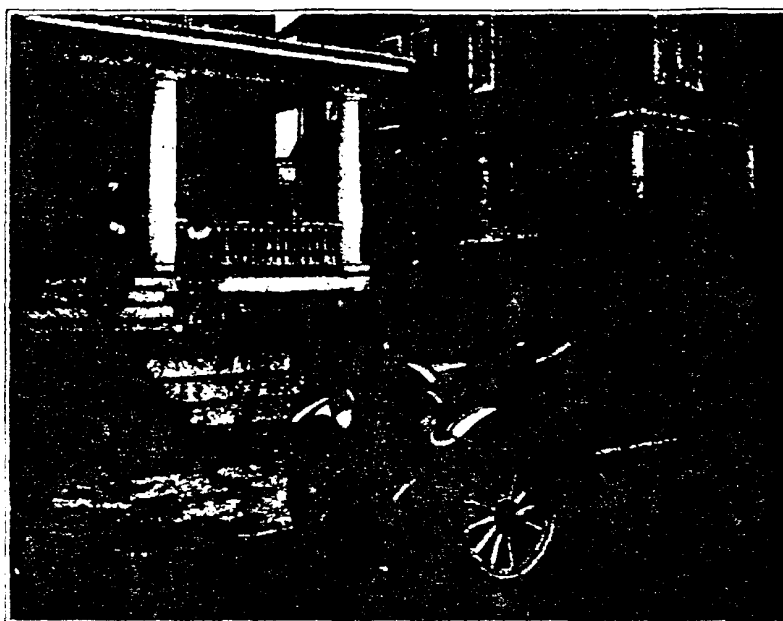
We maintain that keeping up appearances is even more important today than ever. If we are to prove ourselves really efficient we must demonstrate that we can work and fight at the same time; that we can destroy and build up with the same hand (though we would far rather build than destroy); and above all, that playing our part energetically in the great struggle in Europe did not disorganize our industrial and domestic life nor lower our moral standards. Some people may think that keeping up appearances is rather a superficial aim and that it has little to do with right living. But the proof that it has something to do with it lies in the fact that every retrogression, every consent—conscious or tacit—to sloppy appearance in person or property is accompanied by a deterioration

in character, which is none the less real because it is invisible.

Keeping up personal appearance keeps up personal performance, and the same applies to property of whatever nature. If you do not believe it, try painting your home inside and out as it deserves to be painted; spruce up the garden; paint your barn and outbuildings; give the gate a chance to swing by renewing the old rusty hinges, and see if you do not observe in your family and yourself a new energy and uprightness. If you have gone thus far you will never be content until you have refinished your automobile and made it shine

afresh for both business and social uses. You may be astonished to discover how many of the products which are necessary for the refinishing of a car are made by the Du Pont Company.

You will find among them Fabrikoid, the highest grade leather substitute for replacing shabby upholstery and dingy tops, or rubber cloth for the latter purpose at a lesser price; transparent Pyralin sheeting for



An Old Car Renewed with Du Pont Products

the windows; top and seat dressings; and special automobile enamels and varnishes.

Some directions for renewing the enamel may start you upon restoring the old car; new top and upholstery will follow to be in keeping with the enamel; and the result will be a car once more shining and trim.

In repainting or refinishing an automobile, the proper cleaning and preparation of the surface is the secret of good results. When the surface itself is in good condition and it is the desire to freshen up the appearance of the present colors proceed as follows:

Thoroughly clean off the dust, dirt and grease. Brush the surface with a stiff brush or rub with a cloth, using benzine or turpentine to cut the grease and dirt. Sandpaper lightly to provide a slight roughness which is necessary to make the enamel stick. Apply one or two coats of Vitrolac Auto Enamel of approximately the same shade that is on your car now. If an exceptionally high gloss finish is wanted, a final coat of Vitrolac Clear Finishing Varnish should be applied.

When the color is to be changed or the surface is cracked and scarred, special attention is required. After cleaning off all foreign matter, sandpaper carefully to break off loose particles and smooth up the rough places where the old finish is cracked.

Parts where the old paint has chipped off should be primed with regular lead and oil primer composed of white lead and oil, thinned with turpentine and a little Japan drier. This should be left to dry at least twelve hours.

The cracks and dents should be filled with Harrison's Filler and Surfacer as it comes from the can "knifed" on smooth. Allow this to dry at least eight hours and sandpaper off level. Thin some Filler and Surfacer with turpentine to a brushing consistency. Apply one or more coats anywhere that may be necessary to fill small cracks and dents. Brush each coat across the preceding coat eight hours apart and sandpaper each coat with fine sandpaper.

Now apply one or two coats of Vitrolac Auto Ground Coat, using the color indicated on the Vitrolac Enamel color card. This provides the necessary undercoating for the final coat of enamel, two coats of which should be applied, thirty-six hours apart. A coat of the Vitro-

lac Clear Finishing Varnish will add to the durability and high gloss of the enamel.

Just a few words of caution.

Keep all cans of paint carefully covered and outside the garage, particularly if there is a fire in the building.

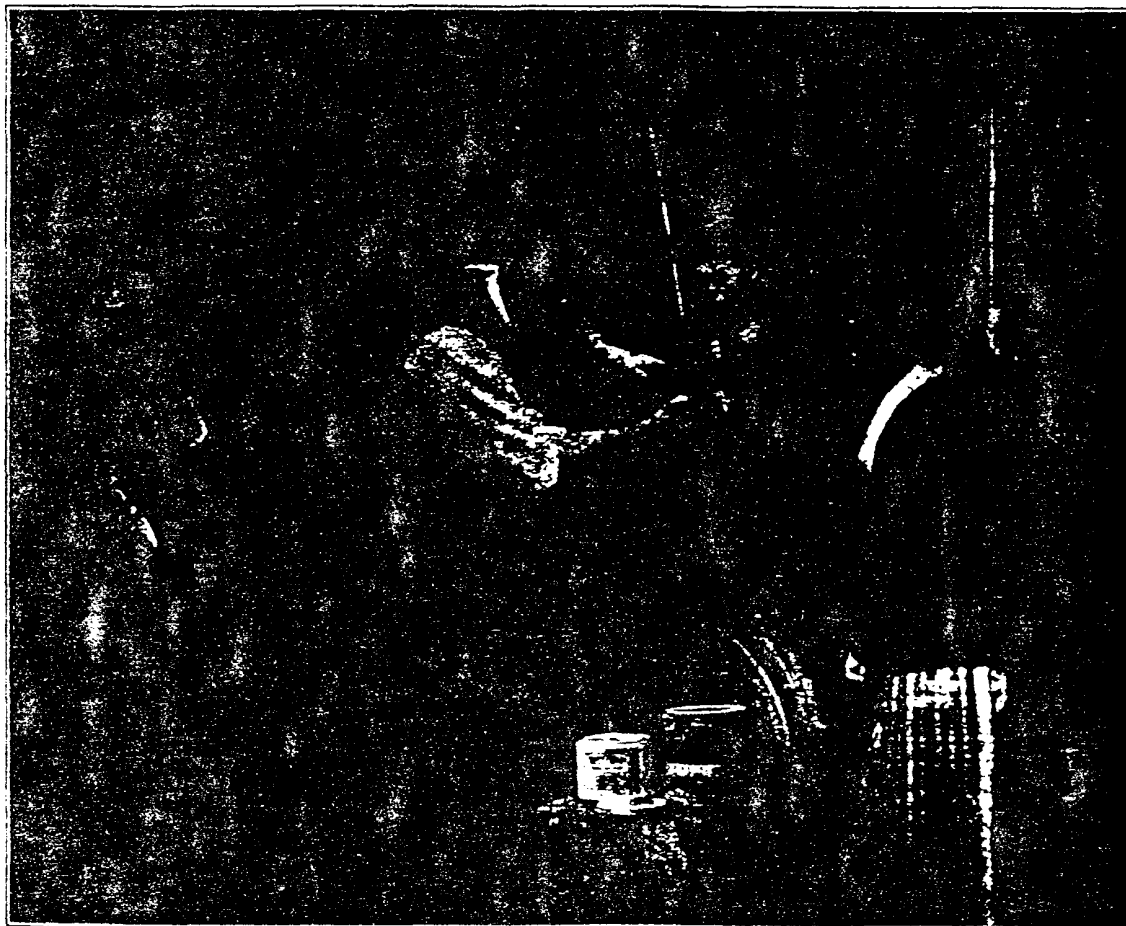
Try to select a time for the refinishing of your car when the air is fairly warm and calm; otherwise, particularly if the job is done outside the garage, dust will be blown on to the wet enamel, spoiling the effect.

Rain will also mar a finish which is still wet; therefore, each day after successive coats have been applied the car should be run into the garage and the garage kept at a temperature of 70° all night.

Use a good brush; do not waste your labor and the cost of the enamel by trying to economize on brushes.

Consult your dealer, who will gladly tell you some of the finer points of refinishing which are beyond the scope of this article.

Look over your car today and ascertain what it lacks in appearance as relates to its painted surface. Obey the voice of reason which prompts you to give it the best possible finish and thereby maintain it as a valuable property asset.



Putting On the Finishing Touches with Vitrolac Auto Finish

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(Du Pont Magazine, January, 19)

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- ☐ Antioxide Iron Paint
- ☐ Auto Finish
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- ☐ Bridgeport Standard Paint
- ☐ Bridgeport Wood Finishes
- ☐ Colors in Oil
- ☐ Concrete Paint
- ☐ Decorative Stains
- ☐ Dulite for Mills
- ☐ Enamels
- ☐ Ferro-Keep (Metal Paint)
- ☐ Floor Paints
- ☐ Floor Varnishes
- ☐ Flow Kote Enamel
- ☐ Industrial Paints
- ☐ Japans
- ☐ Marine Paints
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- ☐ Red Lead
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- ☐ Shellac
- ☐ Shingle Stain
- ☐ Smokestack Paint
- ☐ Town and Country Paint
- ☐ Varnishes
- ☐ Vitrolac Stain Finish
- ☐ Vitrolac Varnish
- ☐ Wagon and Carriage Paint
- ☐ Wheeler's Wood Filler
- ☐ Wire Screen Paint

CHEMICALS

- ☐ Acids
- ☐ Alums
- ☐ Barium Chloride
- ☐ Belt Cement
- ☐ Benzol Products
- ☐ Blanc Fixe
- ☐ Bronze Powder
- ☐ Bronzing Liquids
- ☐ Carpolene (Wood Preservative)
- ☐ Carpo (Metal Paint)
- ☐ Coke
- ☐ Creosote
- ☐ Dead Oil
- ☐ Distilled Water
- ☐ Dry Colors
- ☐ Ether
- ☐ Heavy Chemicals
- ☐ Household Cement
- ☐ Leather Renovators
- ☐ Leather Substitute Solutions
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- ☐ Lithopone
- ☐ Mantle Dips
- ☐ Metal Lacquer
- ☐ Nitre Cake
- ☐ Parlodion
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- ☐ Pontoklene
- ☐ Pulp Colors
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- ☐ Salt Cake
- ☐ Shingle Oil
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- ☐ Fabrikoid Sheeting
- ☐ Fairfield Hospital Sheeting
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Your Address (If Personal)

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Address of Company

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If a user, for what purpose does the product checked, or that which you now use, interest you?

SPECIFIC QUESTIONS SHOULD BE ASKED IN AN ACCOMPANYING LETTER

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