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CAMOUFLAGE

MILITARY TRAINING PAMPHLET No. 46

Part 4A: Painting of Mechanical Transport

1941

Prepared under the direction of

The Chief of the Imperial General Staff

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PREFATORY NOTE

Military Training Pamphlet No. 46 — Camouflage — is the main title of a series which will consist of the following parts:—

- Part 1. General principles: equipment and materials (all arms).
- 2. Field defences.
Huts, camps and installations.
- 4. Vehicles, wheeled and tracked.
- 4A. Painting of mechanical transport.
Artillery, other than anti-aircraft.
- 6. Notes on screens.
Concealment in the face of the enemy.
False work and deceit in the field.

Note. — The serial number indicates publication; remainder in preparation.

CONTENTS

Sec.

- 1. Problems and basic principles
- 2. Patterns
- 3. Adaptation of one pattern to different types of vehicles

Introductory Note

This pamphlet is both an explanation to the users why their vehicles are painted as they are, and a guide to unit commanders who have to repaint their vehicles in the field.

It is NOT an authority for the repainting of vehicles to conform with the patterns recommended.

MILITARY TRAINING PAMPHLET No. 46

PART 4A. PAINTING OF MECHANICAL TRANSPORT, 1941.

1. Problems and basic principles

Paint does not disguise or conceal a vehicle, but is of great assistance in merging it with the background at a distance, and in giving a broken effect at close range.

The characteristic features of a vehicle are:—

- i. The upturned light-reflecting surfaces.
- ii. The shadows contained or cast by forms on the vehicle.
- iii. The large vertical planes.

These can be rendered less obvious by the use of paint.

The following drawings and diagrams show the problems, and how they can be overcome as far as possible by the use of paint. Figs. 1, 2, 3, 4, 5, 6.

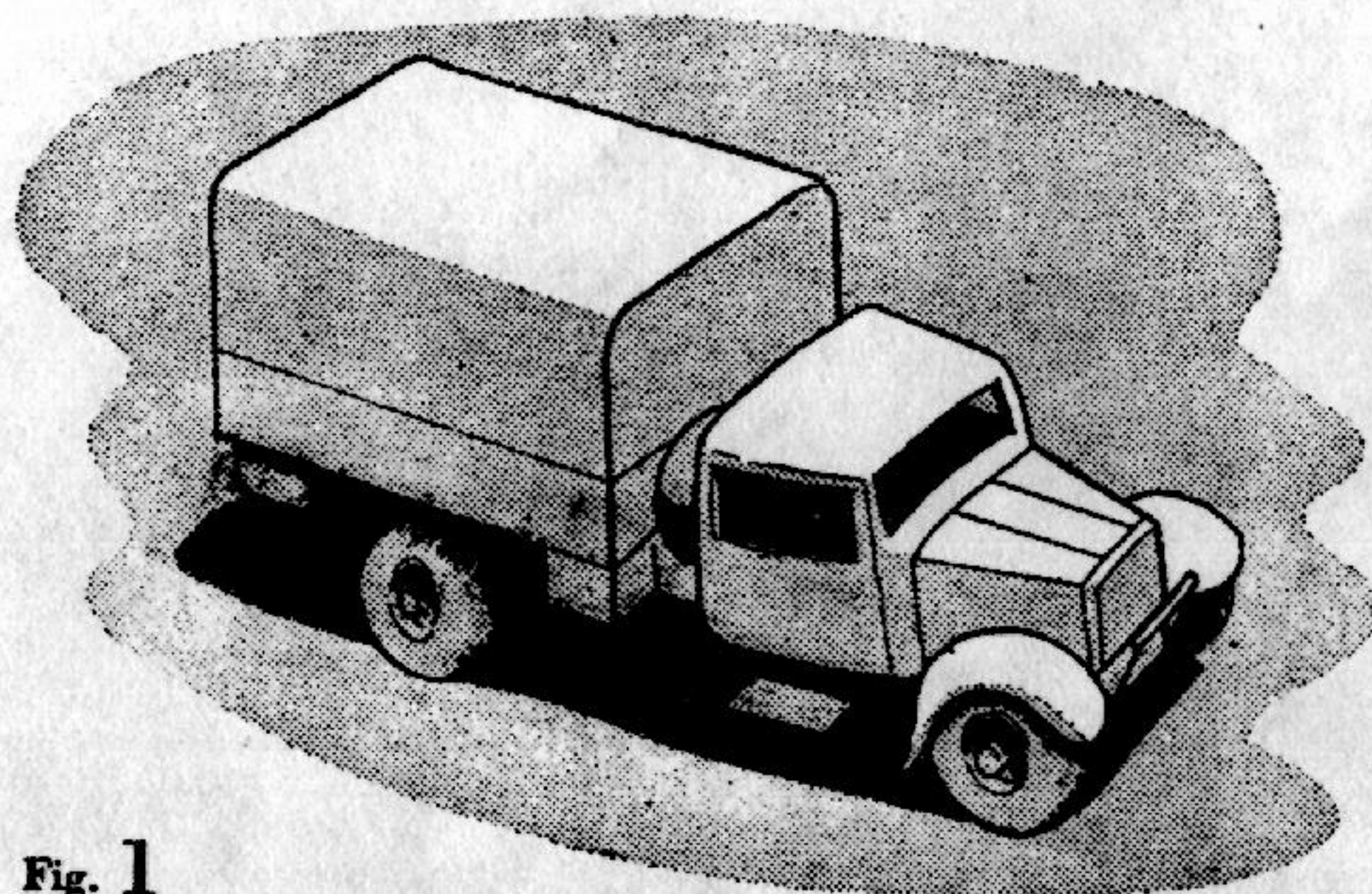


Fig. 1

A vehicle painted in one colour is shown under natural lighting conditions.

Normally upturned surfaces reflect more light than do vertical surfaces and so they appear light when seen from above. Wheel boxes, wings, and cab interior are in shadow, and so appear dark.

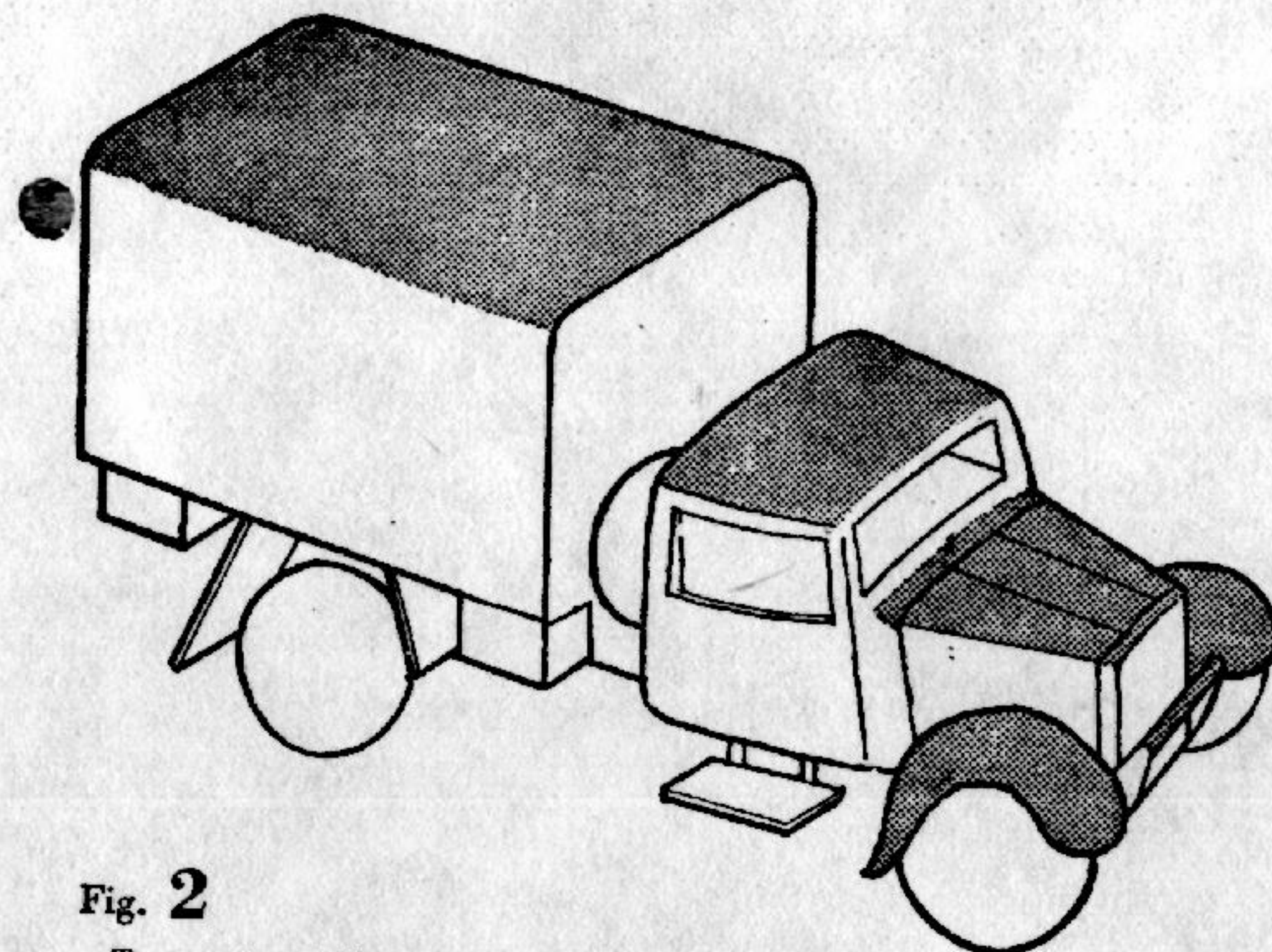


Fig. 2

To counteract light reflection, all upturned surfaces must be painted dark.

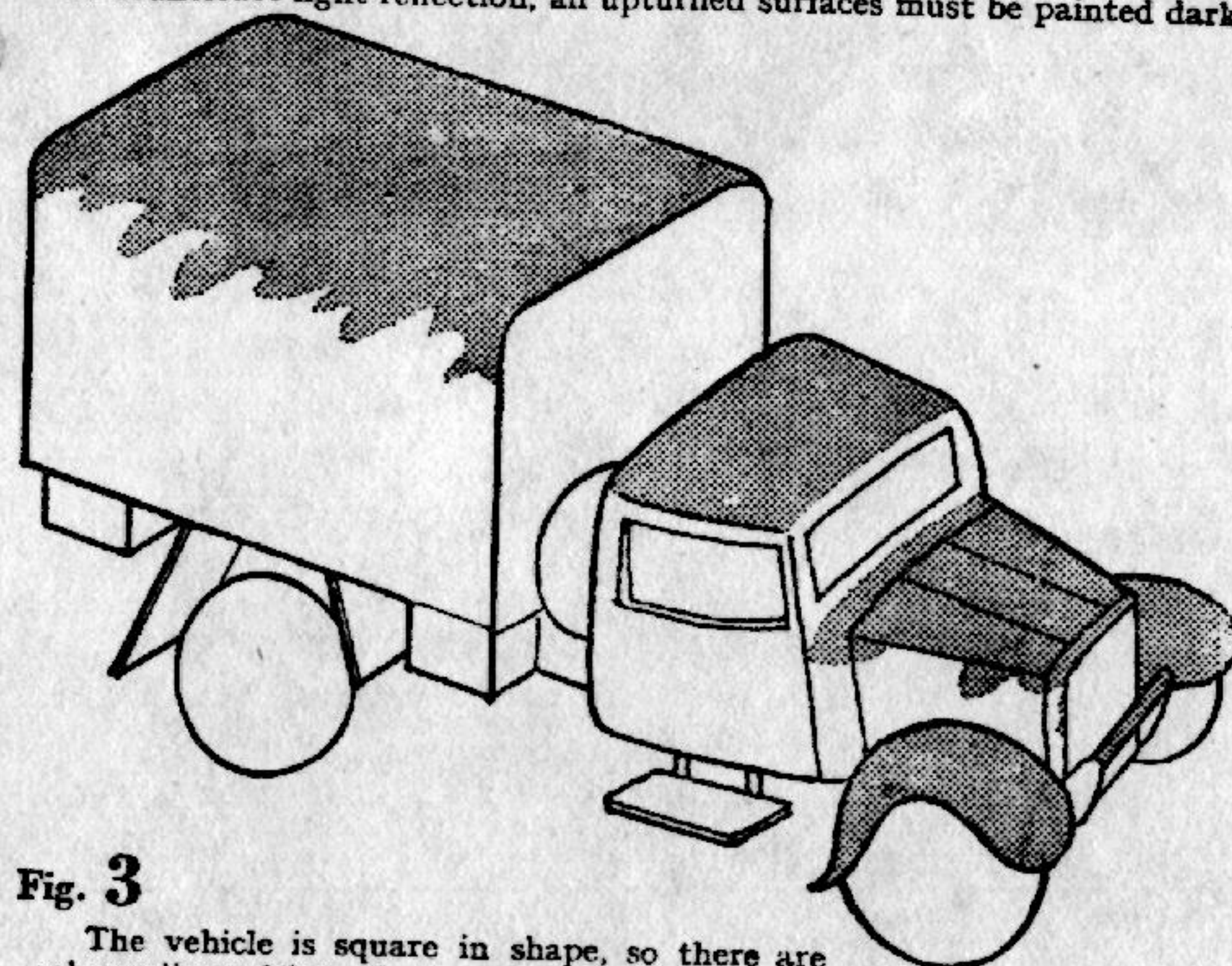


Fig. 3

The vehicle is square in shape, so there are always lines of demarkation where the roof joins the sides, i.e., between light and shade. Even when the top is darkened with paint, these will remain. When the roof joins the side at a right angle nothing can be done with paint to correct this, but when the roof is rounded or bevelled to the side the join between the two tones should be "ragged off".

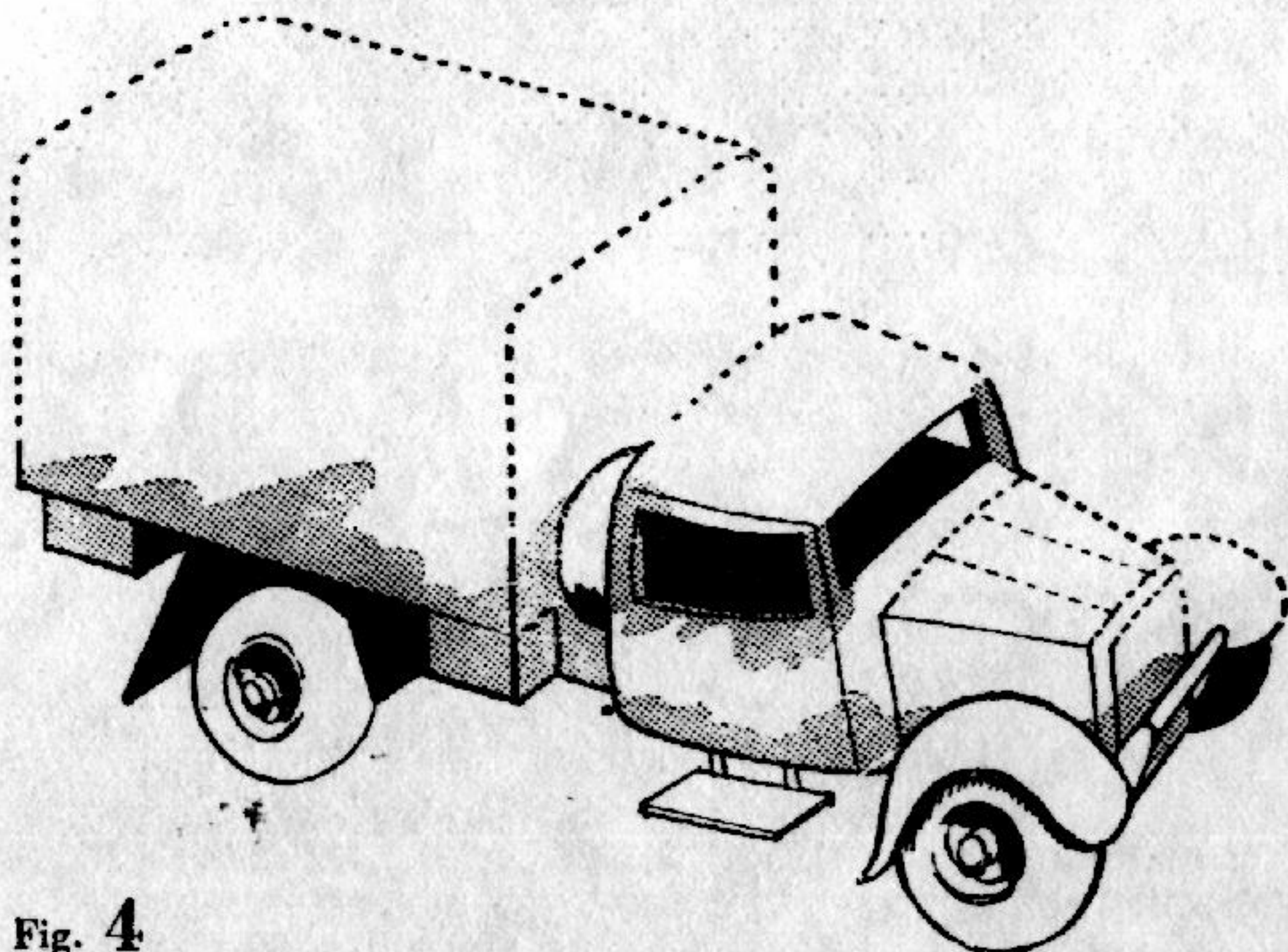


Fig. 4

Shadows beneath overhanging portions of the vehicle cannot be painted out, but they can be absorbed and distorted to some extent by extending a dark unevenly edged pattern on to the vertical sides of the vehicle. As cab openings appear dark from the air they should be included in this pattern.

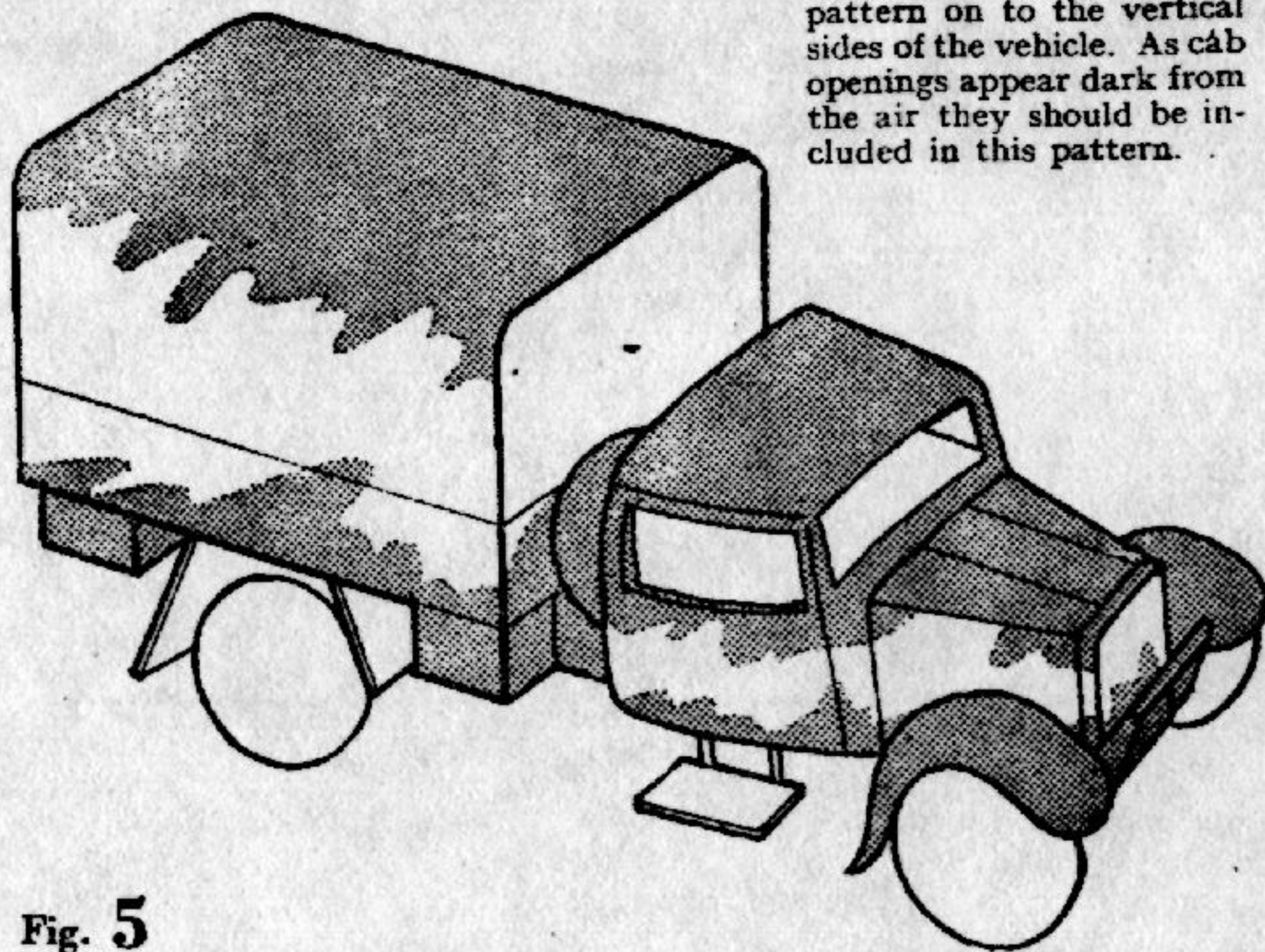


Fig. 5

Having darkened the upturned surfaces and absorbed and extended the shadows, an unevenly edged band or pattern of lighter tone, running in an approximately horizontal direction, is left on the vertical sides of the vehicle.

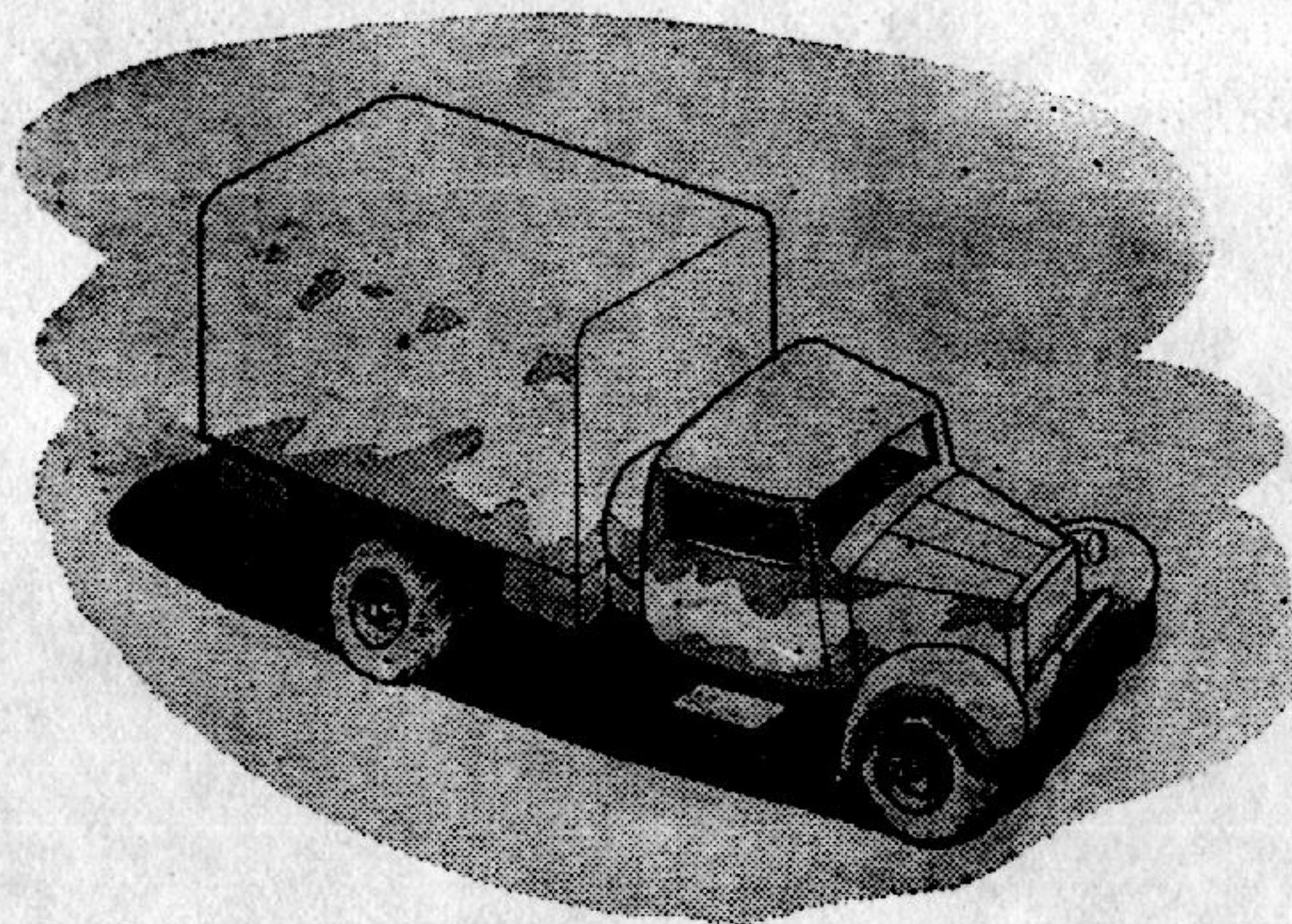


Fig. 6

This shows how a vehicle painted on the lines of diagrams Nos. 2, 3, 4, and 5 would appear under natural lighting conditions, and how paint can help to overcome the problems of shine and shadow shown in Drawing No. 1.

2. Patterns

The basic principles laid down apply to the painting of every vehicle.

For convenience, two colours only are generally used. For England and Northern Europe the light colour may be Khaki Green No. 3 or Standard Camouflage Colour No. 2.

The dark paint should be Standard Camouflage Colour No. 1A.

In some countries the problem is altered, though the basic principles remain the same. The shine from upturned surfaces will be no lighter than light desert country, therefore these surfaces will require darkening to a much lesser degree, or possibly not at all. Depending on the tone of the roof, the light-toned pattern on the vertical sides must be made lighter. A very light paint will often be required.

Repetition of one pattern on a collection of vehicles should be avoided. The following diagrams, which maintain the basic principles of vehicle painting are a guide. Three types of pattern are suggested in Figs. 7, 8 and 9.

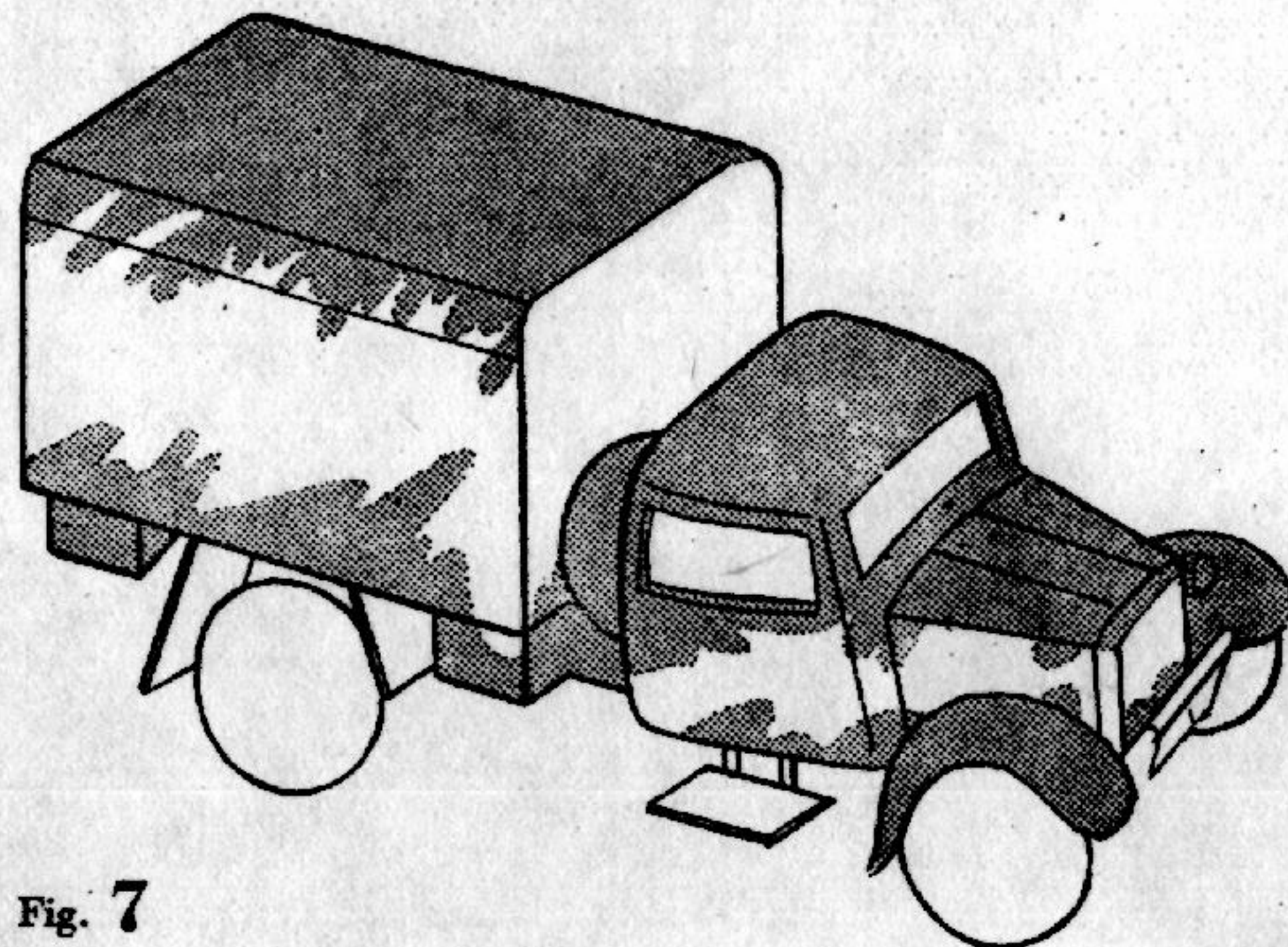
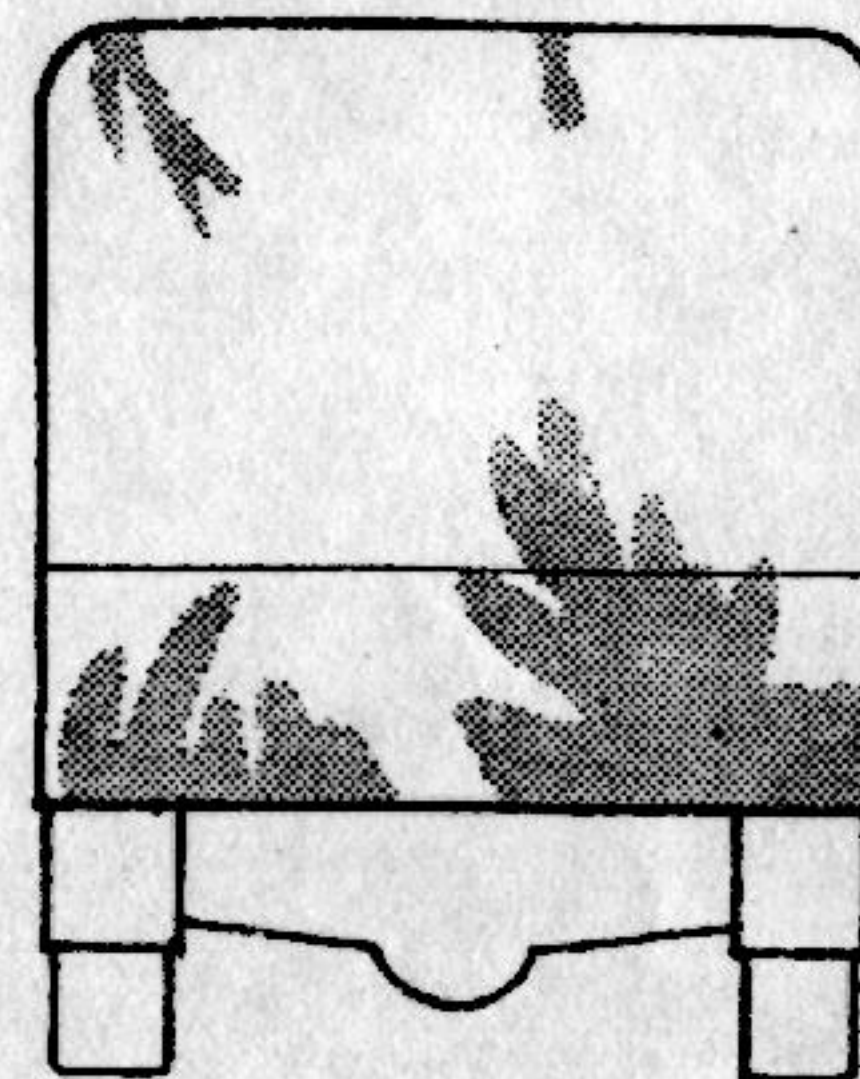


Fig. 7

FOLIAGE PATTERN



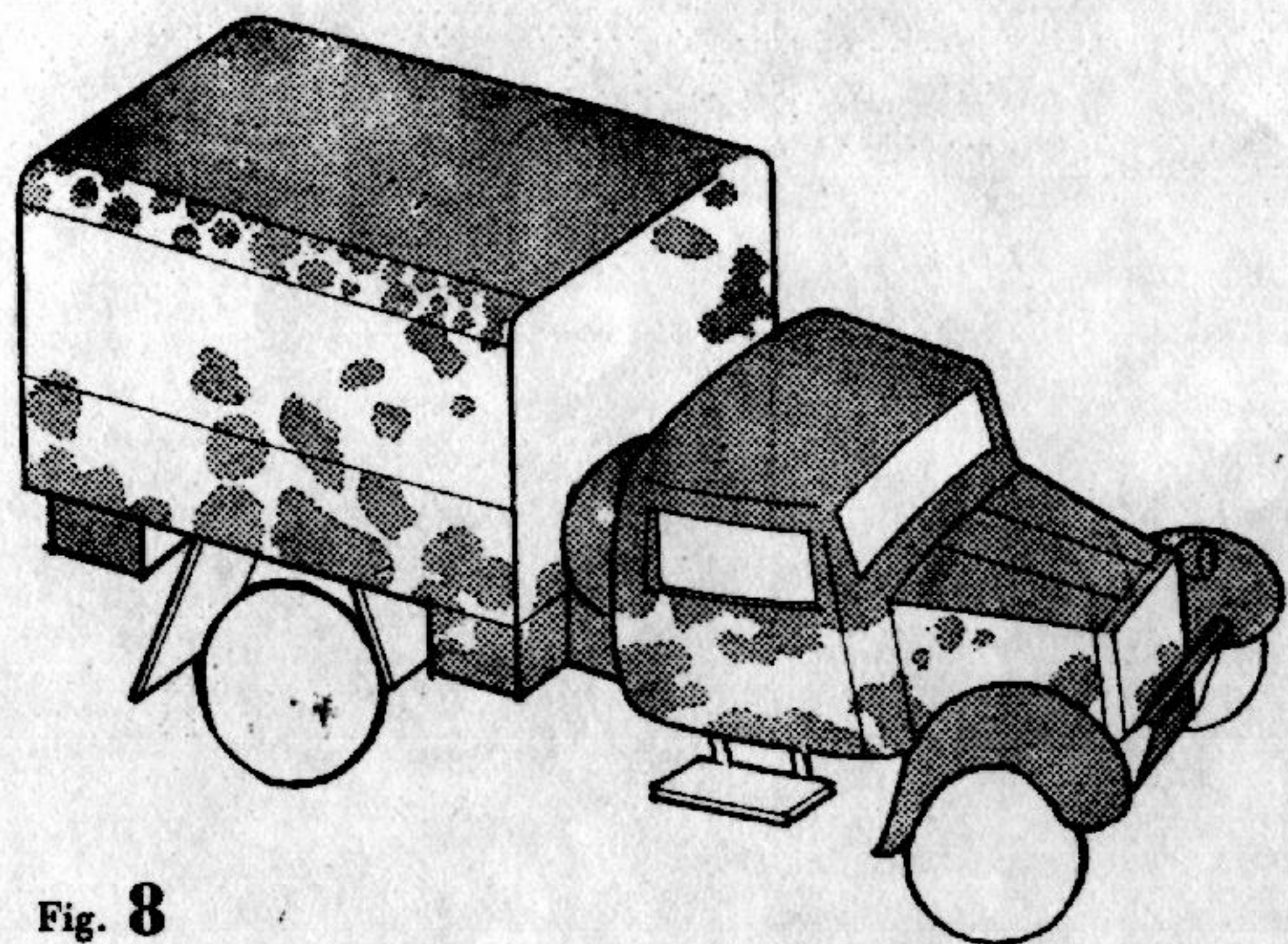


Fig. 8

DAPPLED PATTERN

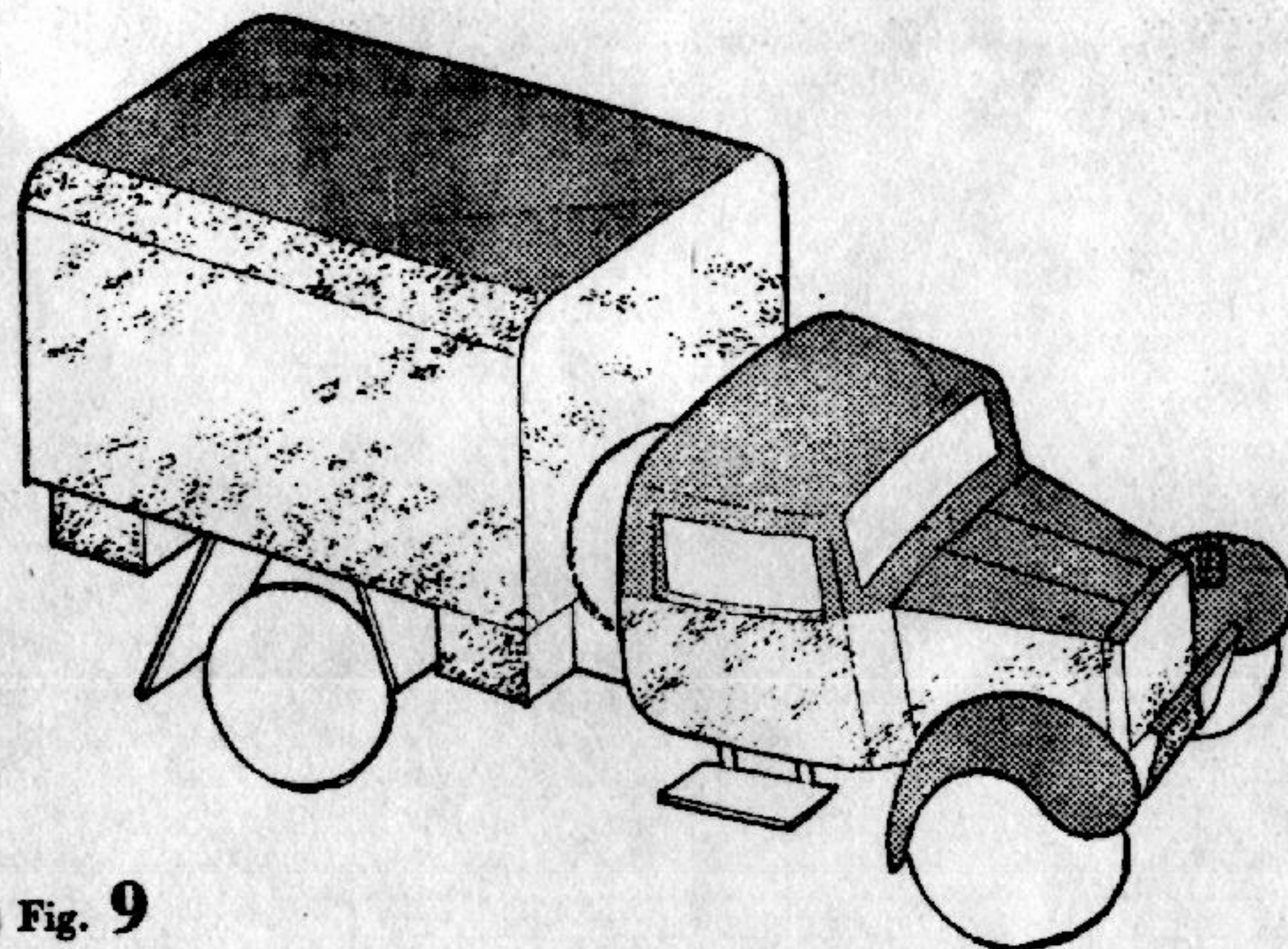
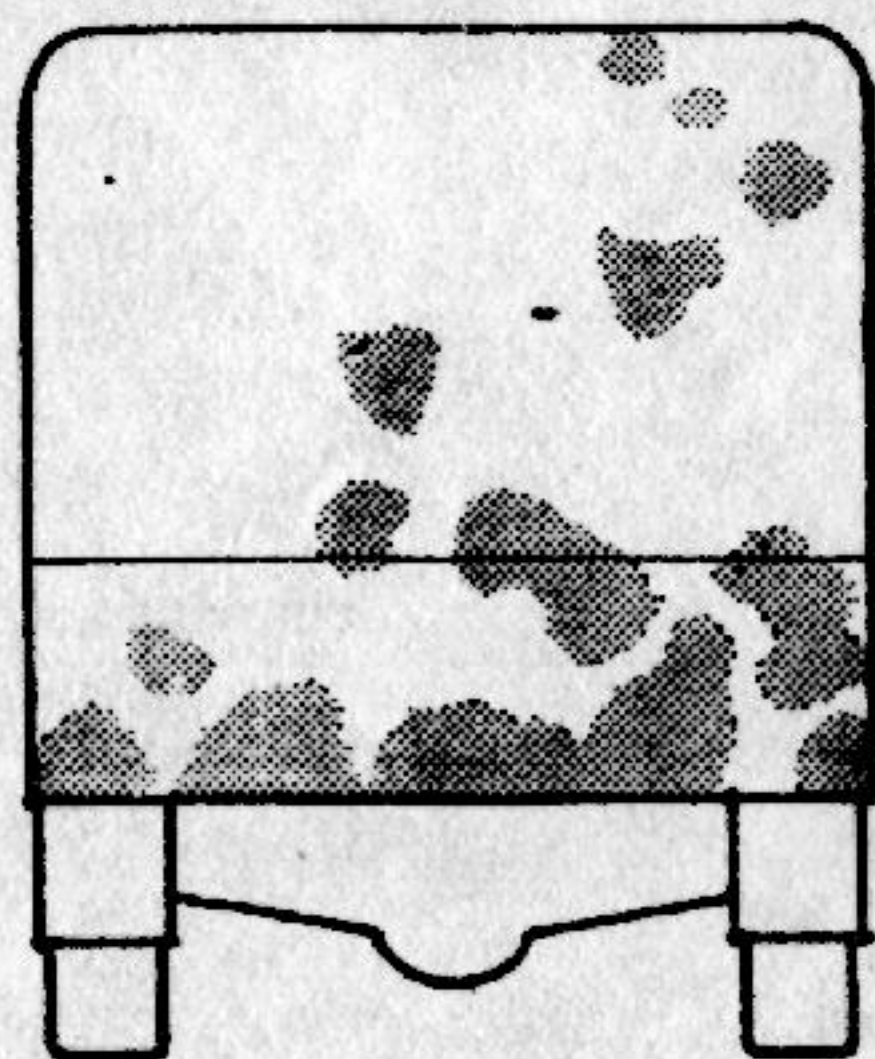
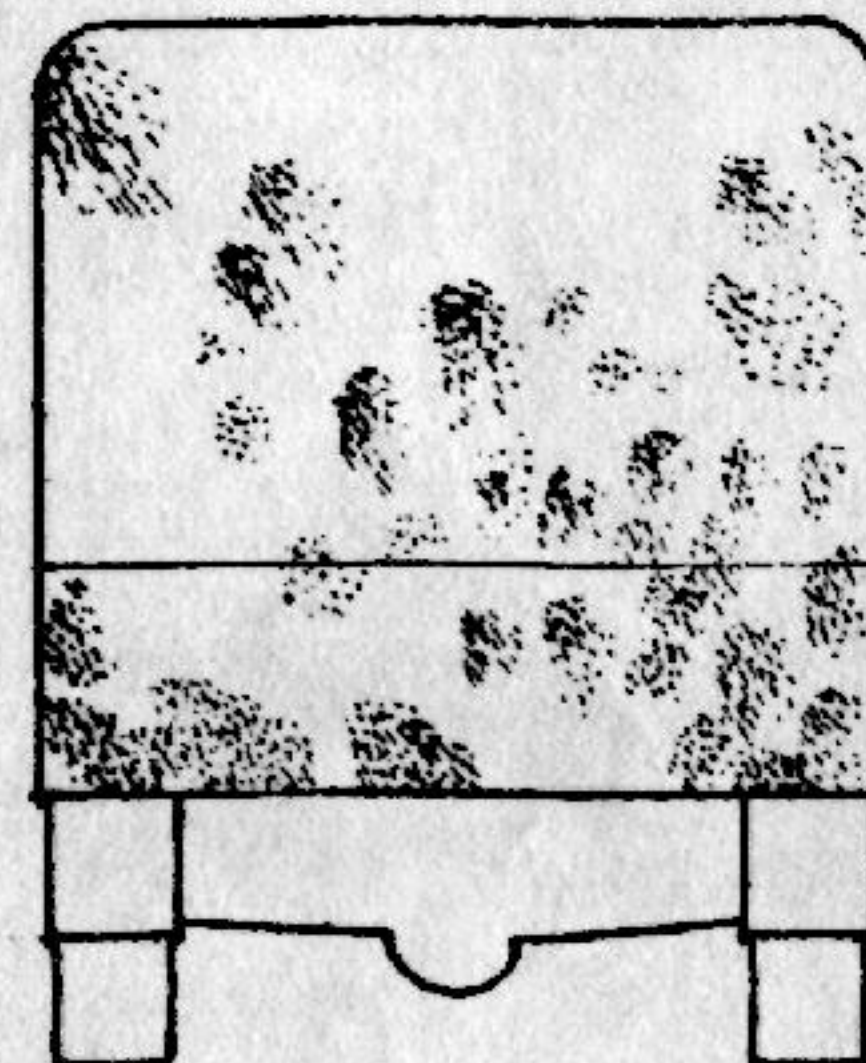


Fig. 9

DRY BRUSH PATTERN



3. Adaptation of one pattern to different types of vehicles

Suggestions as to how one pattern, Fig. 7, the "foliage" type can be adapted and applied to vehicles of different types, are made in Figs. 10, 11, 12 and 13.

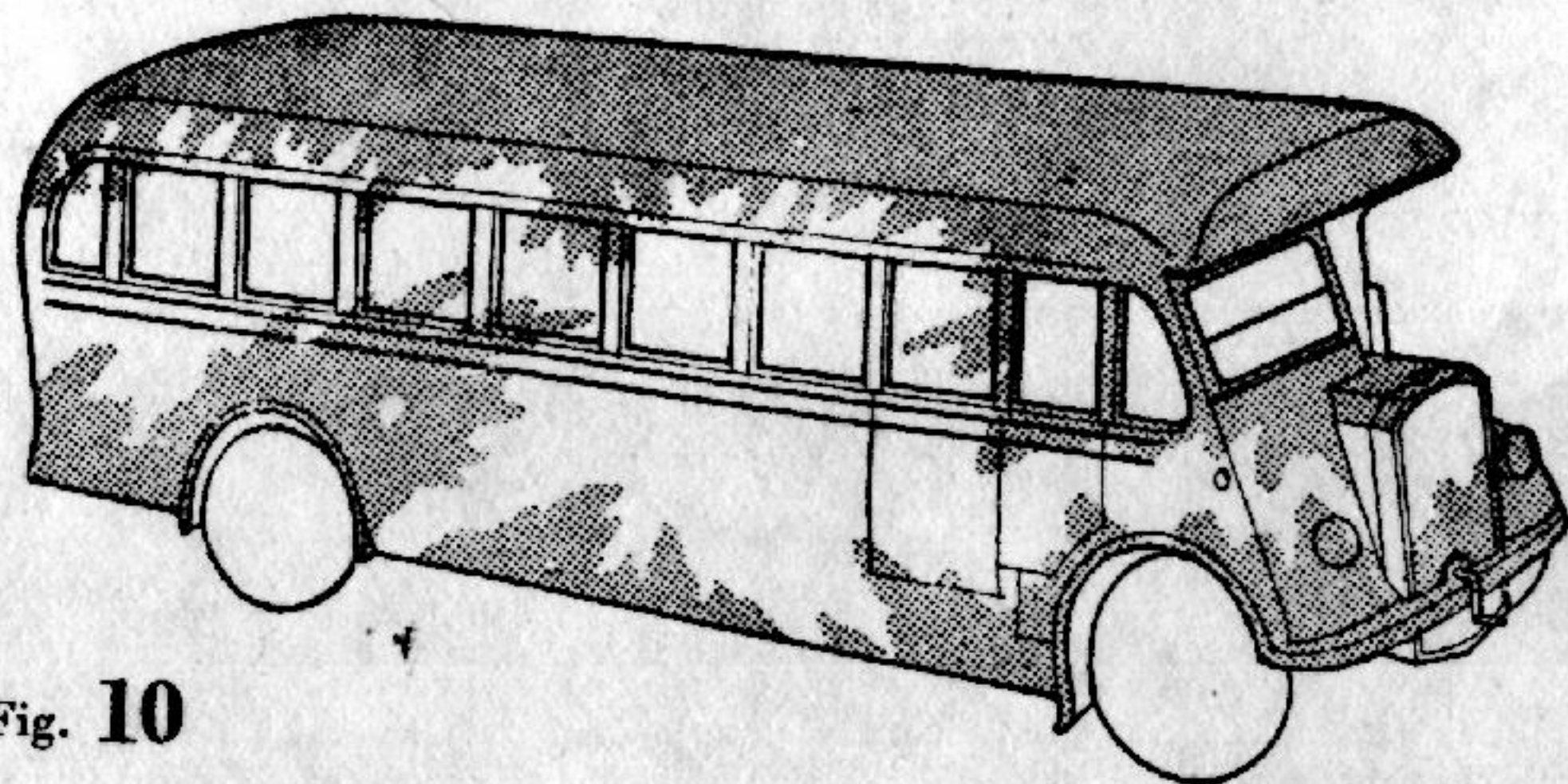


Fig. 10

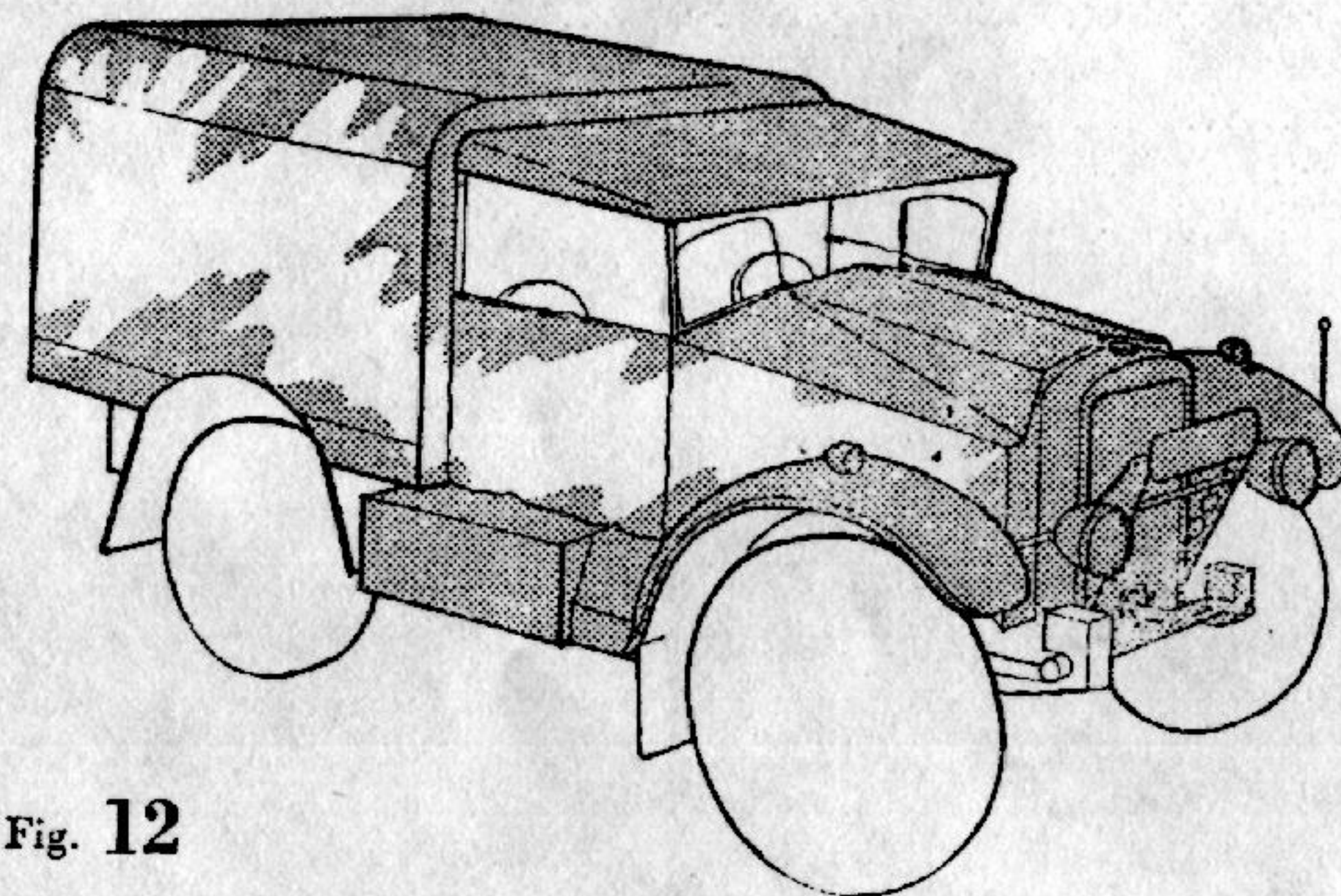


Fig. 12

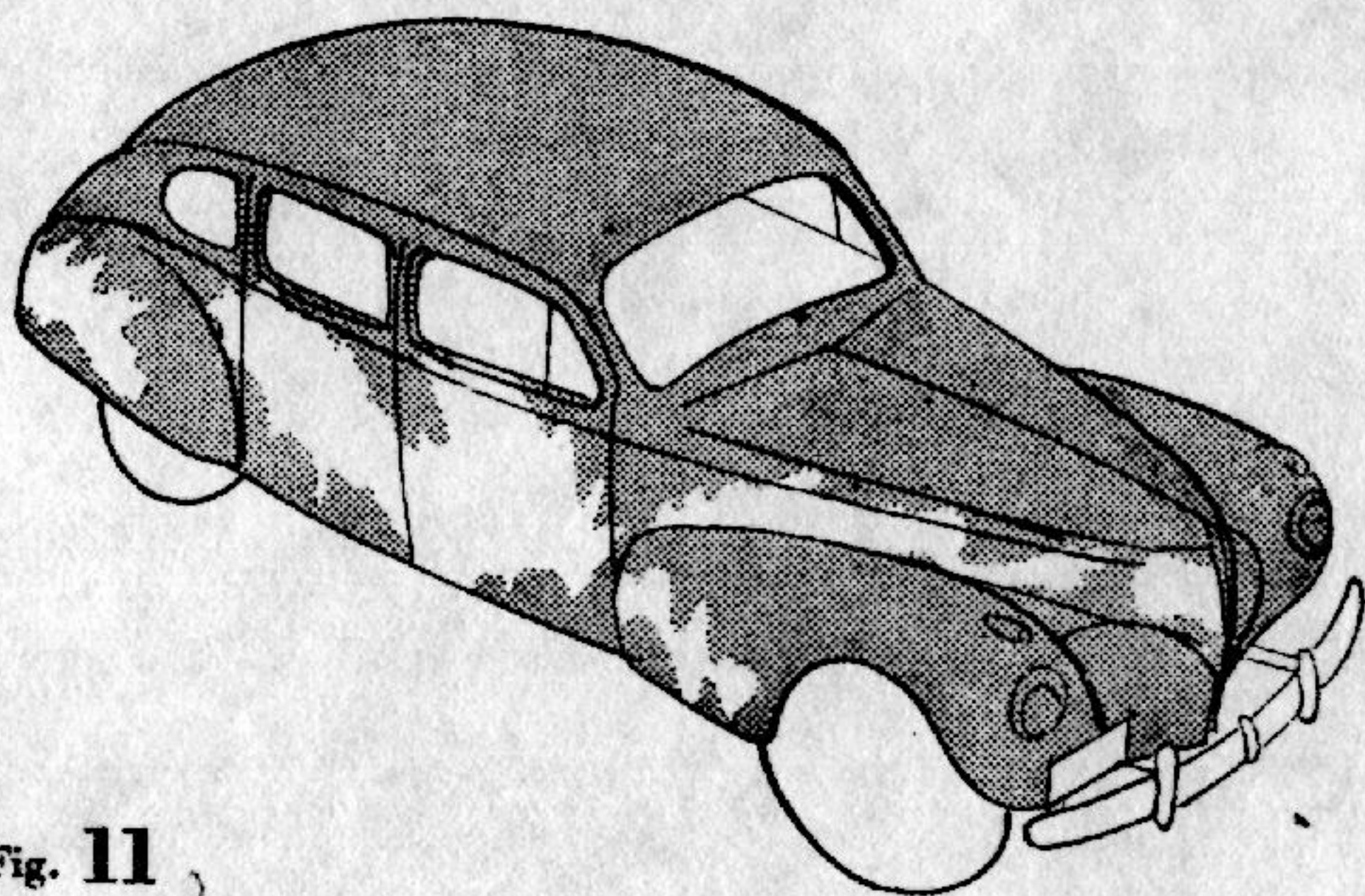


Fig. 11

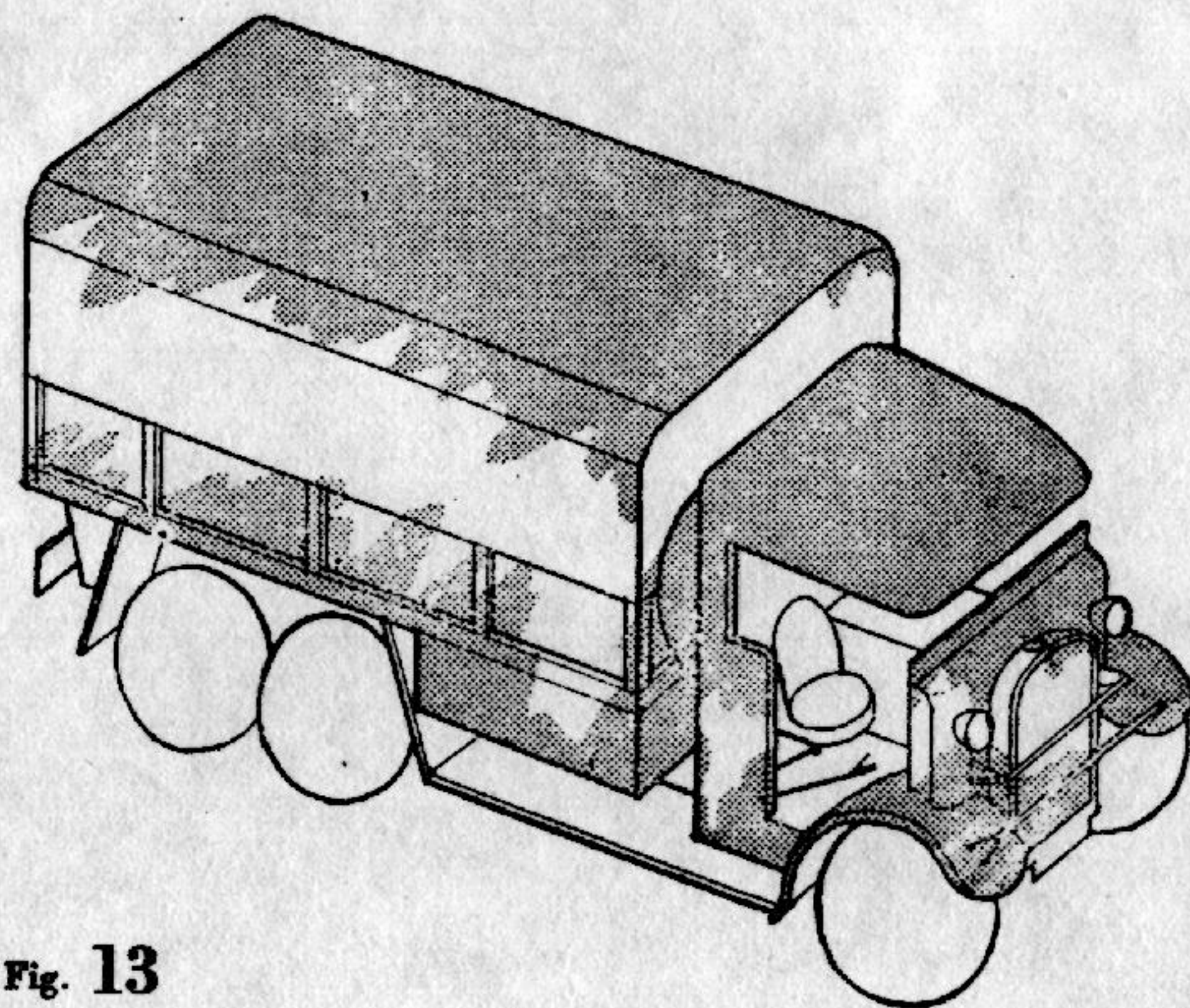


Fig. 13