

## SECTION 3

## WORKSHOP EQUIPMENT

## LIST OF ITEMS

	Now AP 119A-1000-		
	Book	Sect	Item
2 Tank, component washing, large	1B	1	1
4 Sprayer, rust preventive	1B	2	2
5 Plant, cylinder spraying, Type B	1B	2	4
7 Apparatus, tyre repairing set, Type B	1B	1	20
9 Blower, air, portable, Type B, Mk 1 (B.V.C. pattern)	1B	1	4
10 Dynamometer, fan-brake	1B	1	3
14 Tank, engine part washing, Type B	1B	1	2
15 Plant, metal spraying	1B	2	1
20 Hearth, brazing, copper smiths	1B	3	4
22 Truck, cylinder, gas welding	1B	3	1
25 Rig, torque wrench setting and testing, universal (0-400 ft.lb)	1B	1	10
26 Bench, carpenters, Type A	1B	1	11
27 Rig, test, for swaged cable ends	1B	6	6
28 Welder, spot, electric, hand	1B	3	2
29 Plant, arc welding	1B	3	3
30 Kit, oxy-acetylene welding and cutting	1B	3	7
31 Plant argonarc welding, air cooled	1B	3	8
32 Cabinets, storage, low temperature	1B	1	12
33 Machine, commutator and slip ring surfacing	1B	1	14
34 Kit, spot welding, portable	1B	3	9
36 Blower, air, portable, Type B, Mk 2 (B.V.C. pattern)	1B	1	4
37 Plant, plating, "Dalic"	1B	2	3
38 Furnace, muffle, horizontal, electric	1B	1	13



## SECTION 3

## WORKSHOP EQUIPMENT

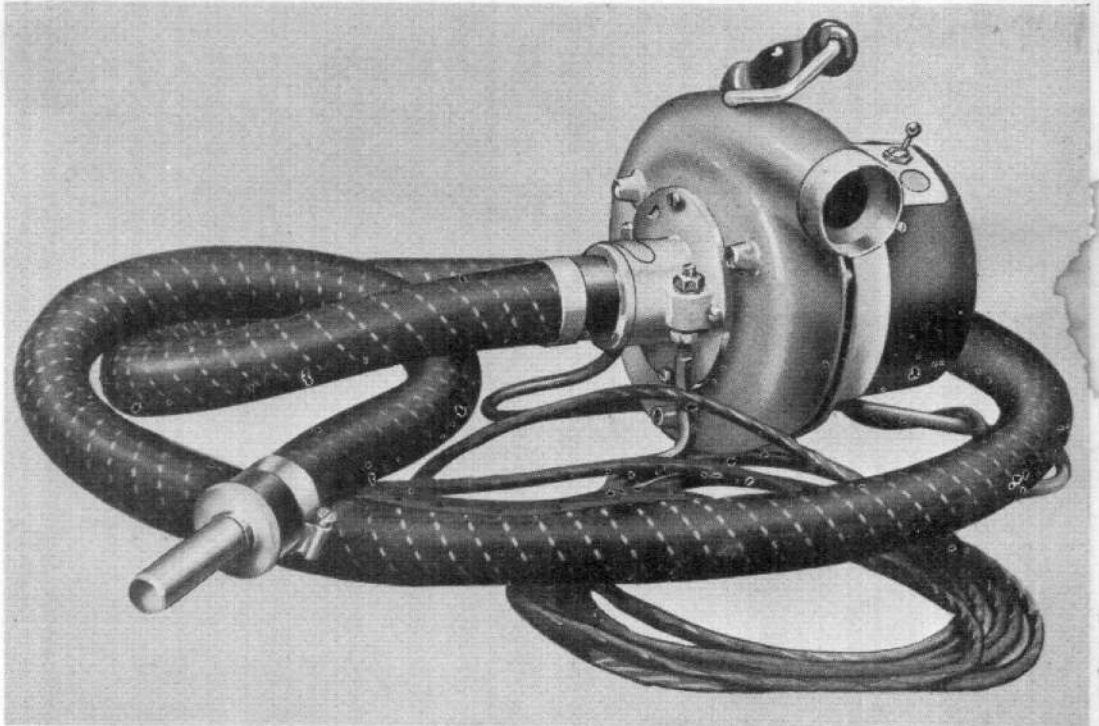
## LIST OF ITEMS

	Now AP	119A-1000-	
	Book	Sect	Item
1 Blower, air, Type A, Mk 1 (Hoover pattern)			
2 Tank, component washing, large	1B	1	1
3 Tank, engine part washing, Type C			
4 Sprayer, rust preventive	1B	2	2
5 Plant, cylinder spraying, Type B			
6 Apparatus, tyre repairing set, Type A			
7 Apparatus, tyre repairing set, Type B			
9 Blower, air, portable, Type B, Mk 1 (B.V.C. pattern)	1B	1	4
10 Dynamometer, fan-brake	1B	1	3
12 Detector, crack, magnetic, Type A			
13 Demagnetizer, Type A			
14 Tank, engine part washing, Type B	1B	1	2
15 Plant, metal spraying	1B	2	1
16 Rig, magneto endurance test			
19 Detector, crack, magnetic, Type R			
20 Hearth, brazing, coppersmiths	1B	3	4
21 Forge, fan type, collapsible			
22 Truck, cylinder, gas welding	1B	3	1
23 Detector, crack, magnetic, Type TD1			
24 Demagnetizer, Type D31			
25 Rig, torque wrench setting and testing, universal (0-400 ft.lb)	1B	1	10
26 Bench, carpenters, Type A	1B	1	11
27 Rig, test, for swaged cable ends	1B	6	6
28 Welder, spot, electric, hand	1B	3	2
29 Plant, arc welding	1B	3	3
30 Kit, oxy-acetylene welding and cutting	1B	3	7
31 Plant argonarc welding, air-cooled	1B	3	8
32 Cabinets, storage, low temperature	1B	1	12
33 Machine, commutator and slip ring surfacing	1B	1	14
34 Kit, spot welding, portable	1B	3	9
36 Blower, air, portable, Type B, Mk 2 (B.V.C. pattern)	1B	1	4
37 Plant, plating, "Dalic"	1B	2	3
38 Furnace, muffle, horizontal, electric	1B	1	13



ITEM 1

## BLOWER, AIR



### A.P. Reference

Stores Ref. 4A/1666

Classification 2

### Overall dimensions

Length 1 ft.

Width 1 ft.

Height 1 ft.

Weight 14 lb.

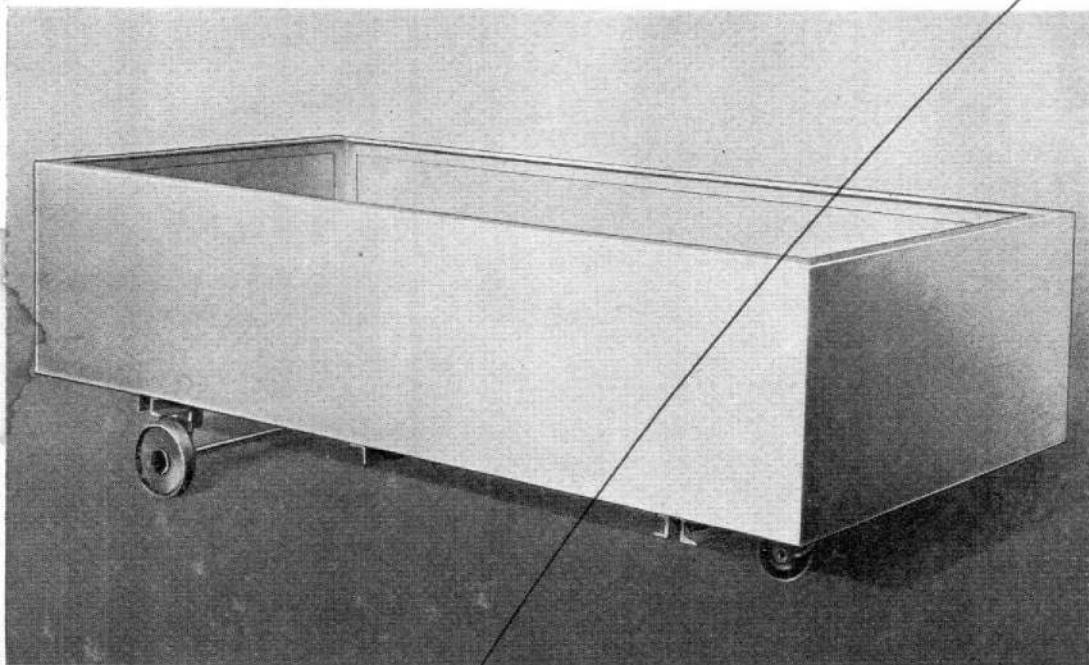
**Brief description** This is an electrically-operated blower and is used for inflating and deflating dinghies for inspection and packing purposes. Max. output: 3 cu. ft. of air per minute. Speed of motor: 11,000 r.p.m. Voltage: 230-250.

**RESTRICTED**

(A.L.23, Feb. 55)

ITEM 2

4026  
**TANK, COMPONENT WASHING, LARGE**



**A.P. Reference**

Stores Ref. 4A/1757

**Classification 2**

**Overall dimensions**

Length 8 ft.

Width 4 ft.

Height 2 ft. 9 in.

Weight 8 cwt. 2 qr. 14 lb.

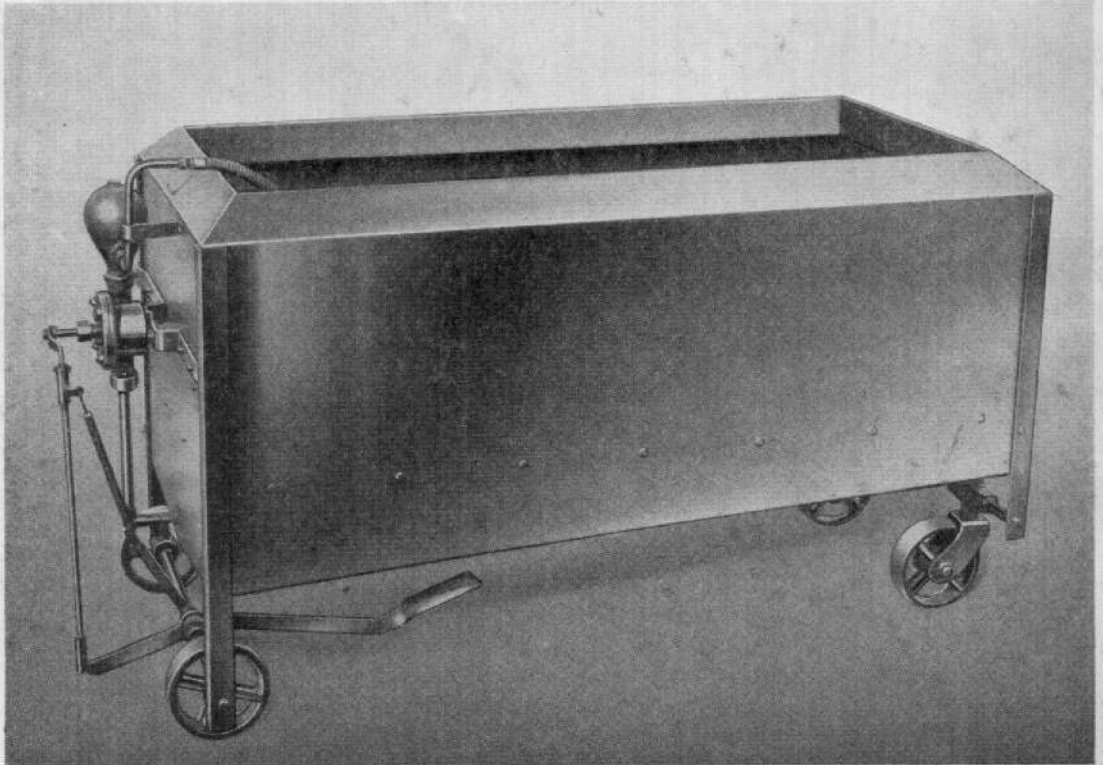
**Brief description** This is a mobile tank of galvanized steel and is used for washing aircraft components. It is equipped with fixed and removable draining trays for the collection of sludge, etc. The depth of the tank is 1 ft. 11 in.

**RESTRICTED**

(A.L.23, Feb. 55)

**ITEM 3**

**TANK, ENGINE PART WASHING, TYPE C**



**A.P. Reference**

**Stores Ref.** 4A/1811

**Classification 2**

**Overall dimensions**

**Length** 6 ft.

**Width** 2 ft. 9 in.

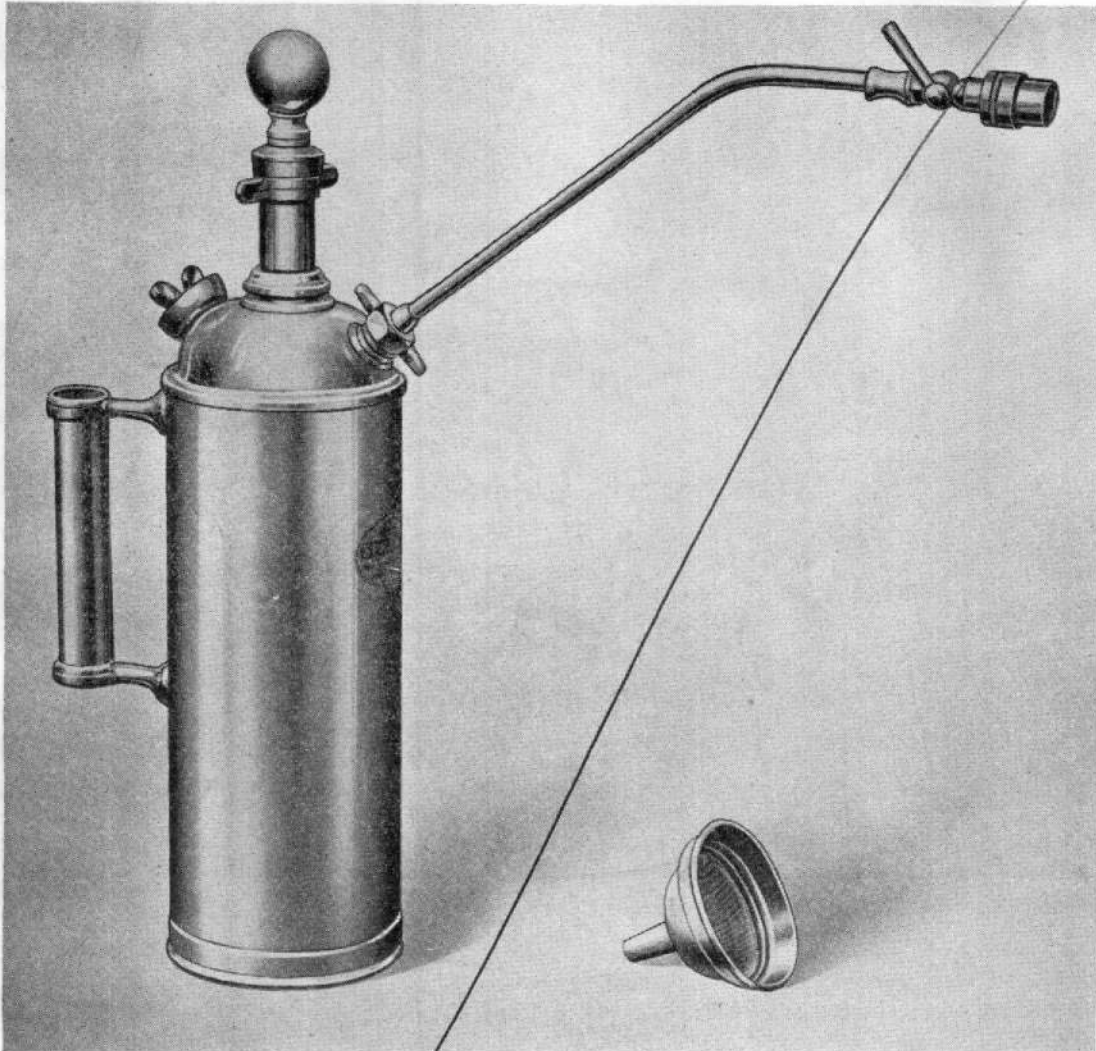
**Height** 3 ft. 3 in.

**Weight** 2 cwt. 2 qr. 14 lb.

**Brief description** This is a mobile tank for washing engine components. It is equipped with a foot-operated pump, a length of flexible hose, a spray nozzle, and straining tray.

ITEM 4

## SPRAYER, RUST PREVENTIVE



**A.P. Reference**

Stores Ref. 4A/719

Classification 2

**Overall dimensions**

Length 7 in.

Width 4 in.

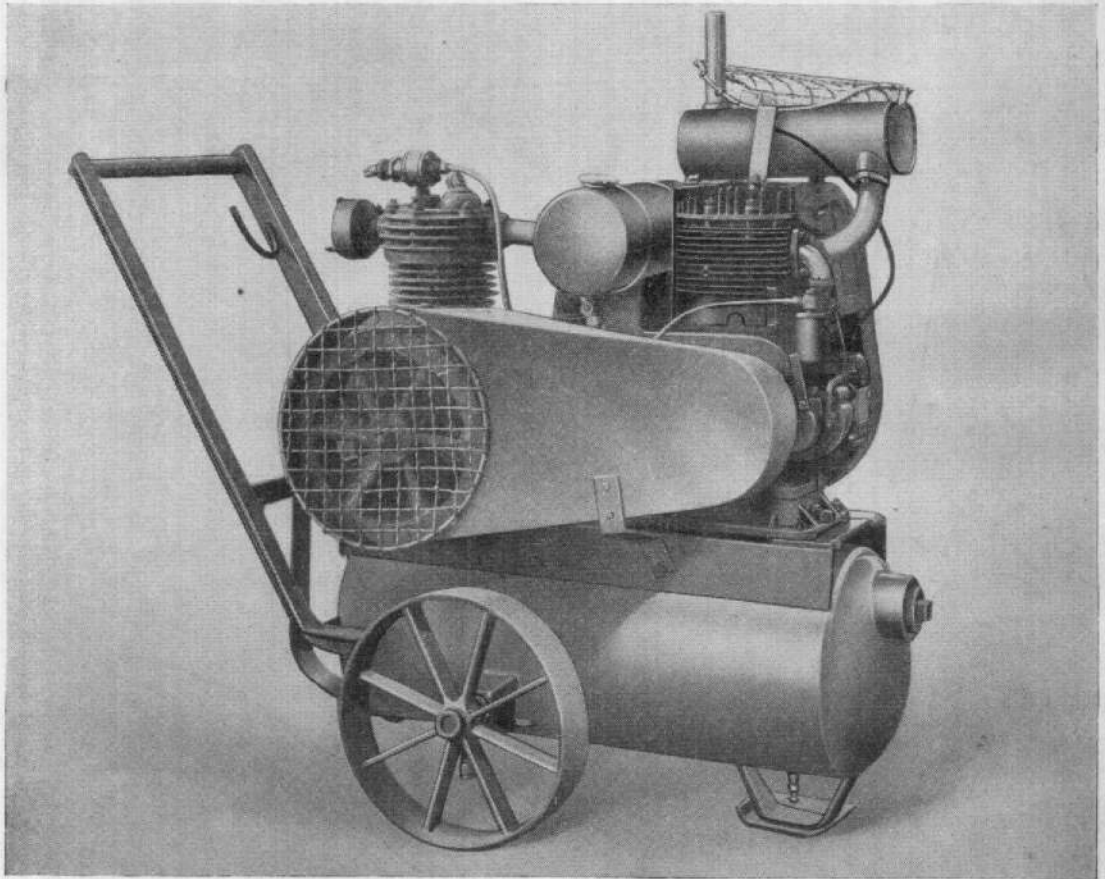
Height 1 ft. 4 in.

Weight (empty) 3 lb.

**Brief description** This sprayer is fitted with a hand-operated air pump and a spray nozzle, and is used for spraying the inside of aero-engine cylinders with corrosion inhibitor, Type C (Stores Ref. 33C/777).

ITEM 5

**PLANT, CYLINDER SPRAYING, TYPE B**



**A.P. Reference** 1464G, Vol. 2, Part 2, Sect. 4, Chap. 2

**Stores Ref.** 4A/1372

**Classification** I

**Overall Dimensions**

**Length** 4 ft. 7 in.

**Width** 2 ft. 2 in.

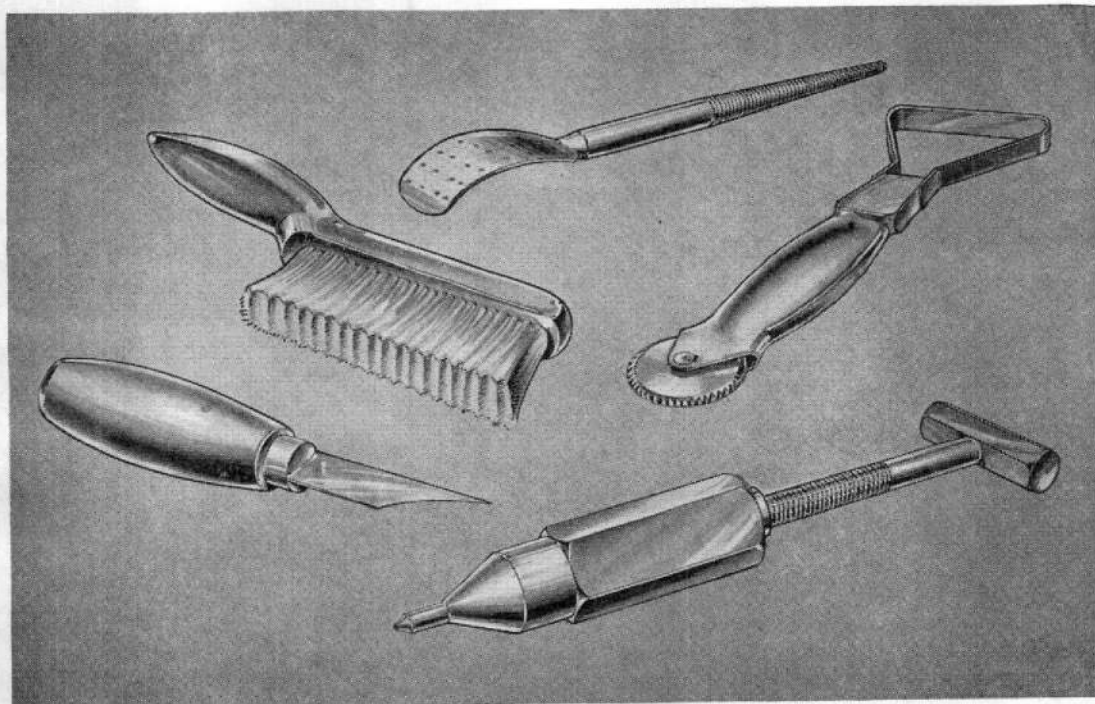
**Height** 4 ft.

**Weight** 5 cwt. 2 qr. 14 lb.

**Brief description** This plant is used in conjunction with a spray gun (Stores Ref. 3A/1034) for inhibiting aero-engines, and consists of an air compressor, a compressed air cylinder and a J.A.P.5 petrol engine. Alternatively a Villiers Mk. 20 engine may be fitted. Working pressure: 150 lb. per sq. in.

ITEM 6

APPARATUS, TYRE REPAIRING SET, TYPE A



A.P. Reference 2337, Vol. 2, Part 3, Sect. 2, Chap. 3

Stores Ref. 4A/1648-1654

Classification 2

Overall dimensions (packed)

Length 1 ft. 4 in.

Width 6 in.

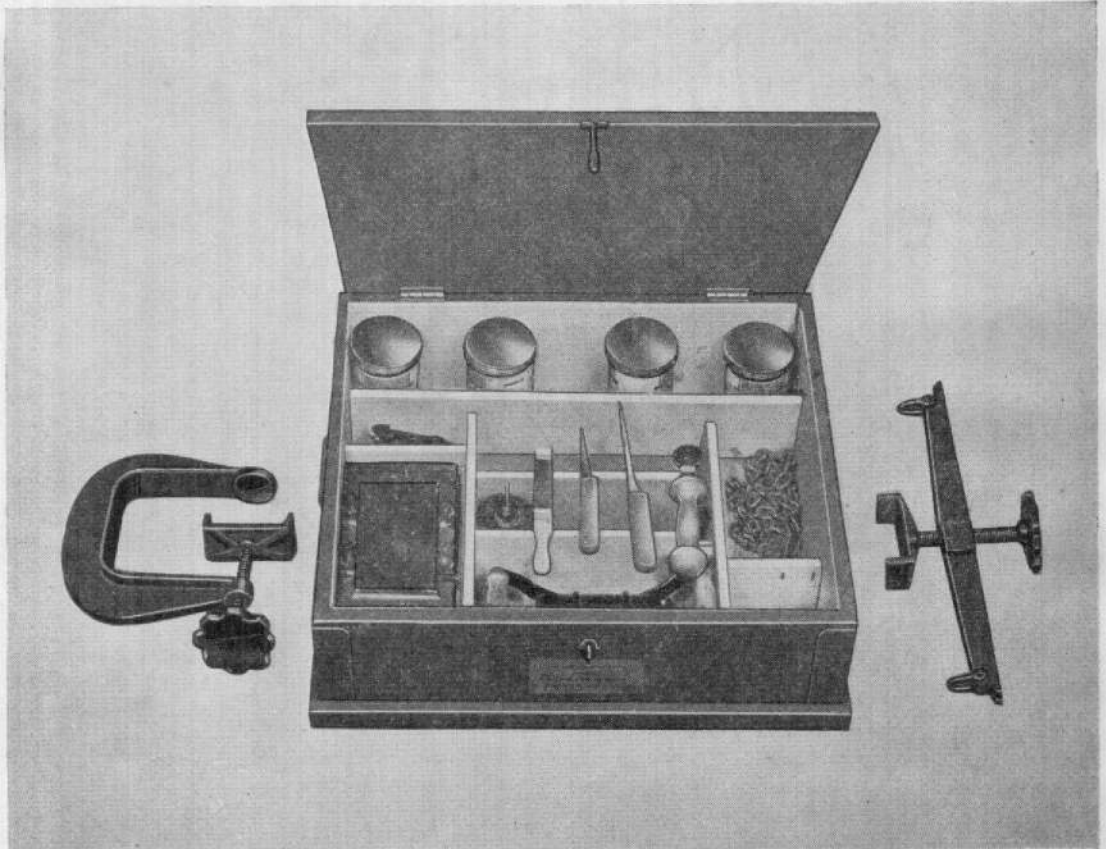
Height 6 in.

Weight 5 lb.

**Brief description** This apparatus is used for repairing slight cuts in the tread of aircraft and M.T. tyre covers where the damage does not penetrate the canvas plies. It consists of a wire brush, a rat-tail rasp, a trimming knife, a combined buffer and edge wheel, a dough gun, 12 cartridges of tyre dough, and a tin of solvent cleaner (the last two items are not illustrated).

ITEM 7

**APPARATUS, TYRE REPAIRING SET, TYPE B**



**A.P. Reference** 2337, Vol. 2, Part 3, Sect. 2, Chap. 3

**Stores Ref.** 4A/1766 or 1700

**Classification** 2

**Overall dimensions**

**Length** 2 ft. 11 in.

**Width** 1 ft. 8 in.

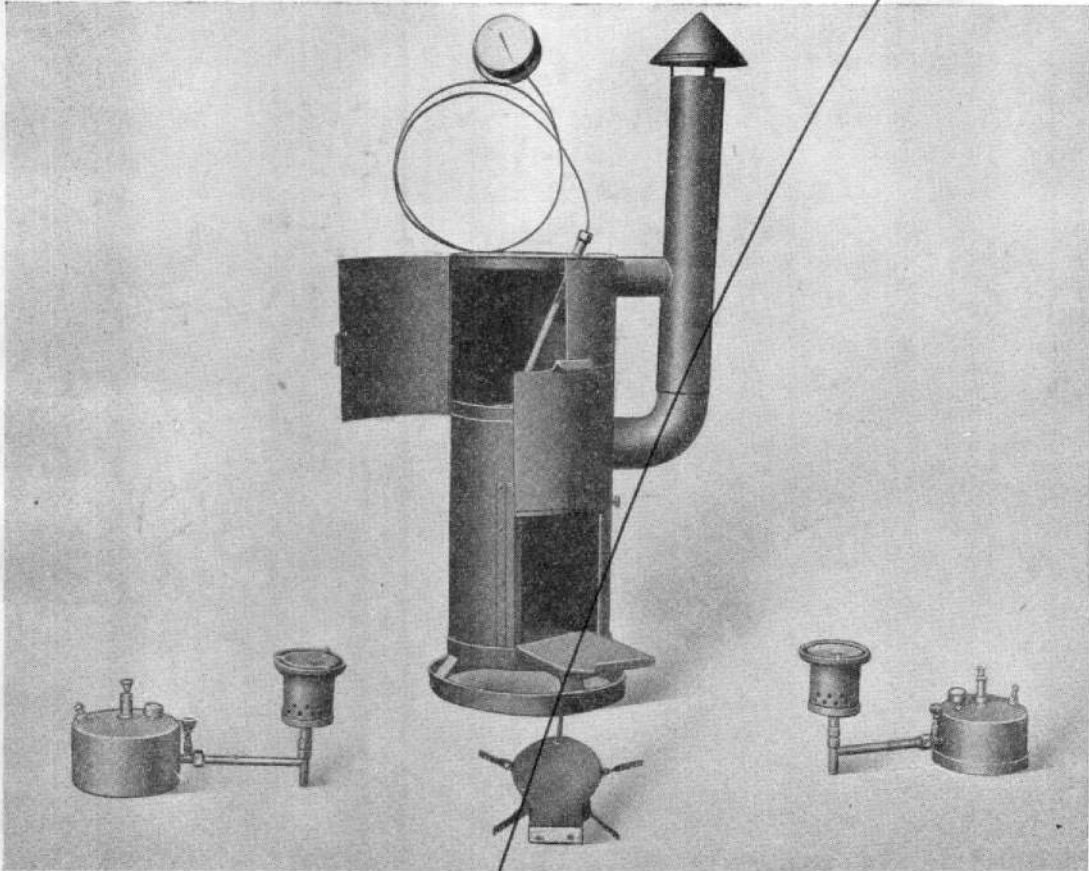
**Depth** 7½ in.

**Weight** 42 lb.

**Brief description** This apparatus is used for minor vulcanising repairs to aircraft tyre covers and tubes. Two different sets (*Stores Ref. 4A/1766 and 1700*) are provisioned for use in the Service and are identical except for their operating voltages which are 110 volts and 200-250 volts, respectively.

ITEM 8

## BATH, SALT



**A.P. Reference** Leaflet 1464B/3

**Stores Ref.** 4A/768

**Classification** 2

**Overall dimensions**

**Length** 2 ft. 2 in.

**Width** 1 ft. 8½ in.

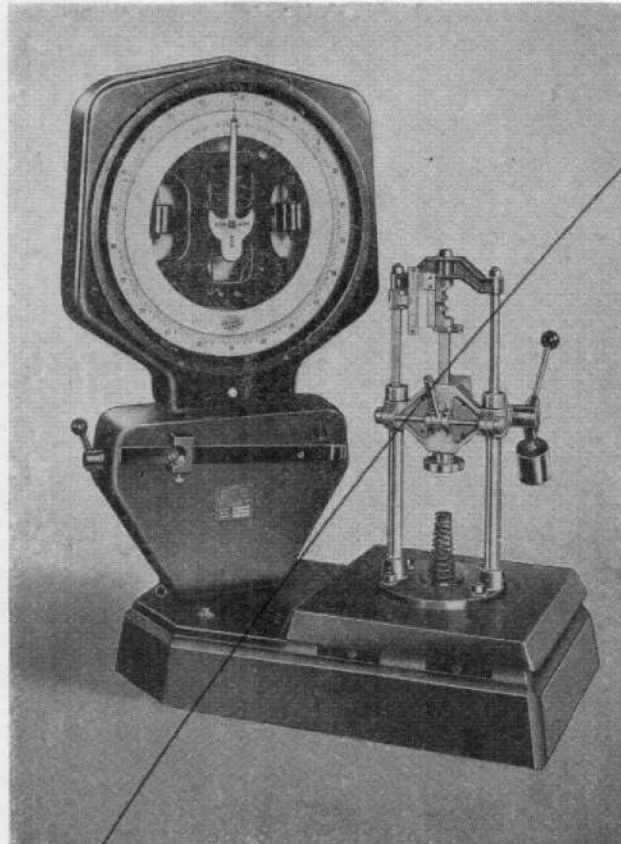
**Height** 5 ft. 7 in.

**Weight** 1 cwt. 3 qr.

**Brief description** This bath is used for the heat treatment of small duralumin parts (including rivets). Two kerosine heaters are provided with the bath, for alternate use, to enable heat to be applied continuously, and an index thermometer is fitted to register the temperature of the salts (Stores Ref. 33C/339). Max. working temperature: 505 deg. C.

ITEM 11

## SCALES, VALVE SPRING TESTING



19676

A.P. Reference 1464B. Vol. 1. PT 2 SECT 3 CHAP 19.

Stores Ref. 4A/1488

Classification 2

**Overall dimensions**

Length 3 ft. 0 in.

Width 1 ft. 9½ in.

Height 4 ft. 0 in.

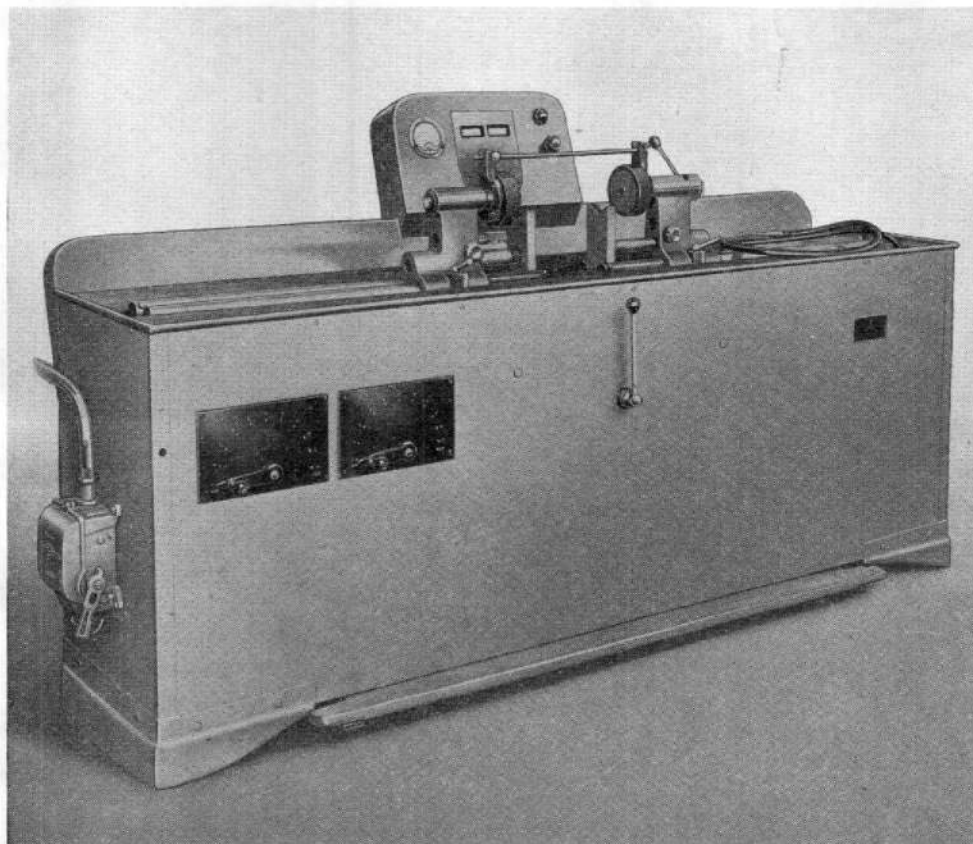
Weight 4½ cwt.

**Brief description** This machine is designed for testing small coil springs in tension and compression, and consists of two compression platens, the load on which is registered on a weighing dial; one fixed and one moveable tension pin, the movement of which is registered on a deflection scale, and a tare beam to balance the weight of the specimen spring. The machine is particularly useful for matching a set of springs by actual test.

~~RESTRICTED~~

ITEM 12

## DETECTOR, MAGNETIC CRACK, TYPE A



**A.P. Reference** 880C, Vol. 1, Sect. 2, Chap. 3

**Stores Ref.** 4A/1822

**Classification I**

**Overall dimensions**

**Length** 8 ft. 3 in.

**Width** 2 ft. 8 in.

**Height** 4 ft. 4 in.

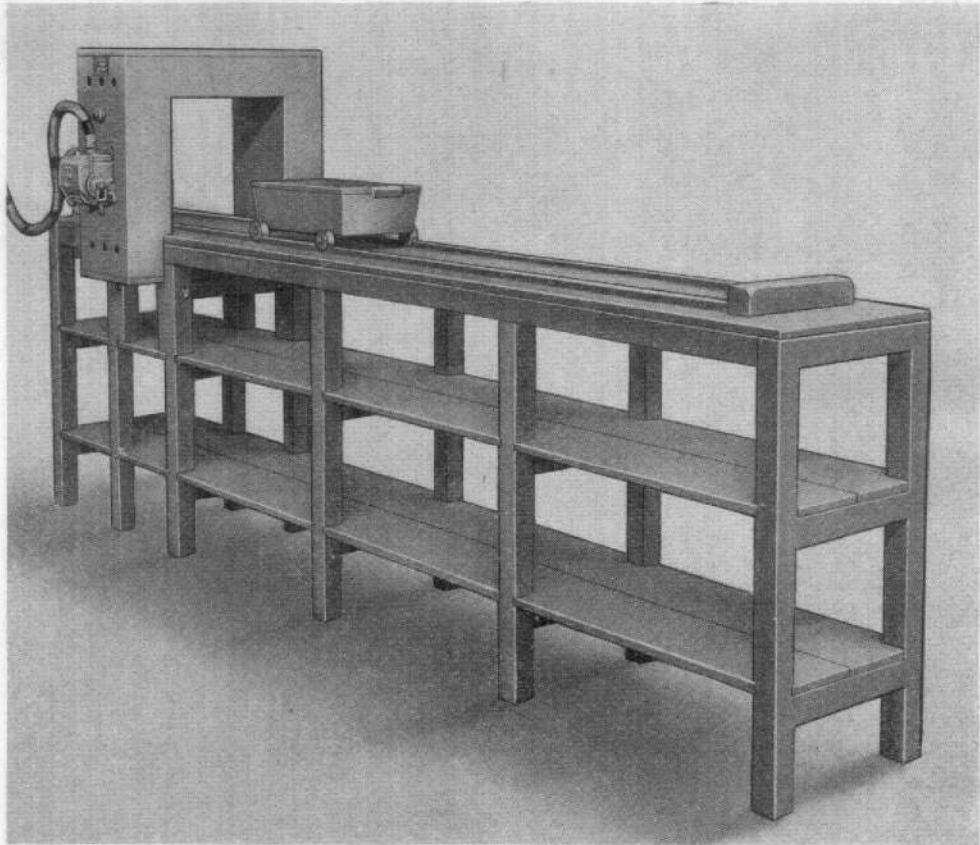
**Weight**

**Brief description** This standard type crack-detector includes accessories for current flow and magnetic flux application. The crack-detecting ink is supplied from a self-contained reservoir in the machine, and is conveyed from the pump through a length of hose fitted with a nozzle. The on-off current switch is controlled by a pedal bar. The machine is operated on a.c. supply of either 200-250 volts, 40-60 cycles, single phase, or 380-440 volts, 40-60 cycles, single phase.

~~RESTRICTED~~

ITEM 13

DEMAGNETIZER, TYPE A



**A.P. Reference** 880C, Vol. 1, Sect. 2, Chap. 3

**Stores Ref.** 4A/1616

**Classification** I

**Overall dimensions** (including track)

**Length** 10 ft.

**Width** 2 ft. 6 in.

**Height** 4 ft. 9 in.

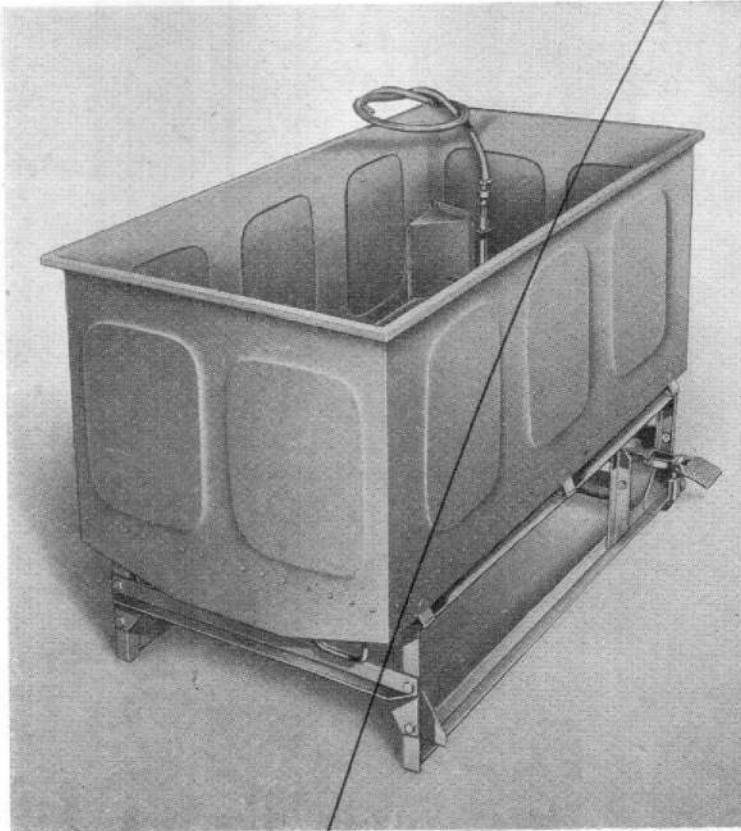
**Weight** "1000 7400"

**Brief description** The demagnetizer, which is an accessory of magnetic crack-detector machines (Item 12), is mounted at one end of a track which supports a runway. The demagnetizer consists of a 15 in. square tunnel into which a trolley, loaded with one or more components to be demagnetized, is entered and slowly withdrawn. The plant is operated by a current input of 230 volts, 50 cycles, single phase.

~~RESTRICTED~~

ITEM 14

## TANK, ENGINE PART WASHING, TYPE B



AC26

### A.P. Reference

Stores Ref. 4A/1269

Classification 2

### Overall dimensions

Length 5 ft. 0 in.

Width 2 ft. 8 in.

Height 3 ft. 3 in.

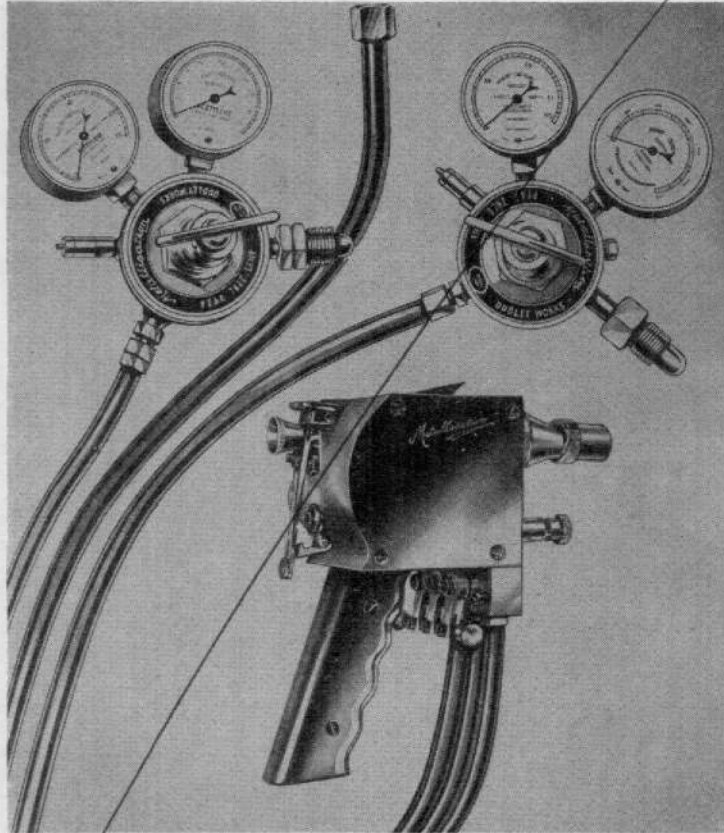
Weight "26WT"

**Brief description** This engine part washing tank is equipped with draining and straining trays, a pump, flexible hose and nozzle. The pump is operated by a pedal. The depth of the tank is 2 ft.

~~RESTRICTED~~

ITEM 15

## PLANT, METAL SPRAYING



AC26

**A.P. Reference** 1464B, Vol. 1, Part 2, Sect. 3, Chap. 16

**Stores Ref.** 4A/2/97

**Classification 2**

**Overall dimensions (packed)**

**Length** 2 ft. 9 in.

**Width** 1 ft. 6 in.

**Height** 1 ft. 6 in.

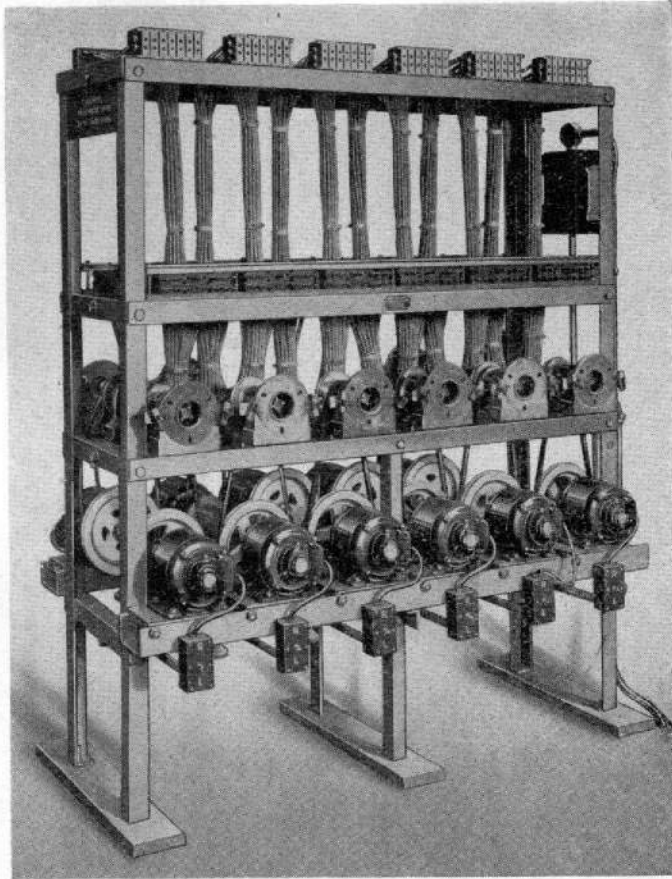
**Weight (packed)** 84 lb.

**Brief description** This plant is used for the "wire system" of metal spraying, to deposit metals as corrosion-resistant coatings, for building up surfaces in the reclamation of worn parts, screening radar equipment, and protecting metal surfaces against oxidation at high temperatures. The plant requires a supply of compressed air, oxygen, and a fuel gas, and incorporates a metal spraying pistol, two multi-stage regulators, three 20 ft. lengths of rubber tubing, and a spool, roller and stand for the wire feed. The last three items are not illustrated.

~~RESTRICTED~~

ITEM 16

## RIG, MAGNETO ENDURANCE TEST



A.P. Reference 1374, Vol. 2, Part 3, Sect. A, Chap. 3

Stores Ref. 4A/1722

Classification 2

### Overall Dimensions

Length 5 ft. 6 in.

Width 2 ft. 9 in.

Height 6 ft.

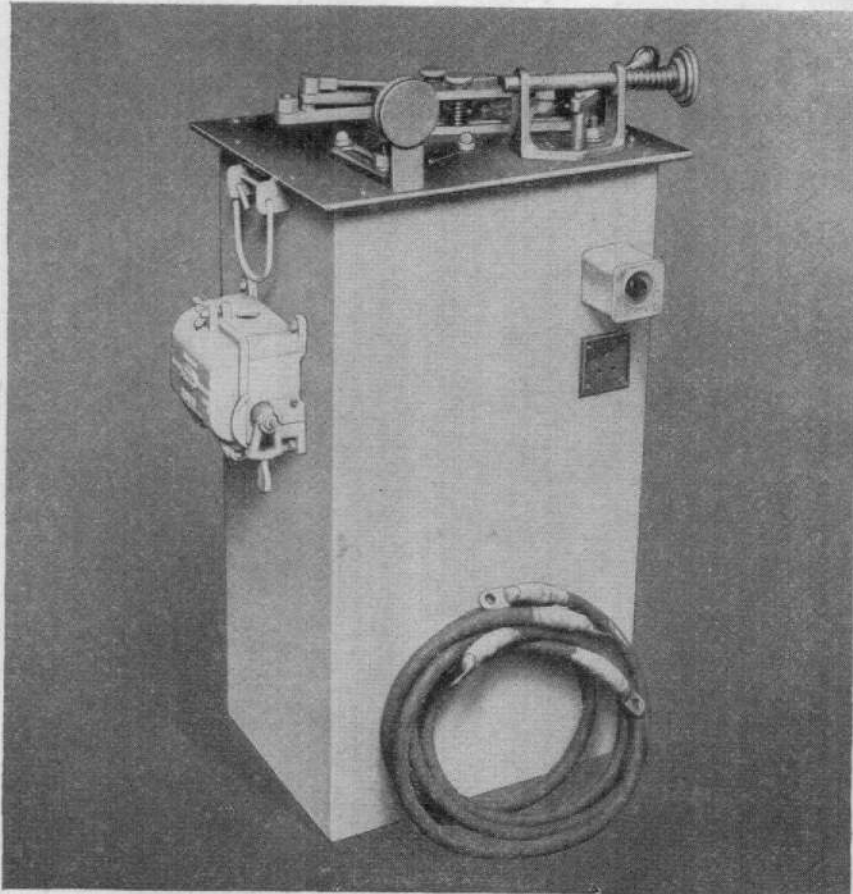
### Weight

**Brief description** This rig is for the endurance testing of aero-engine magnetos, and consists of a steel framework upon which is mounted six  $\frac{1}{3}$  h.p. and six  $\frac{1}{2}$  h.p. electric motors, twelve 14-way junction boxes, twelve annular spark gaps, and twelve magneto mountings or running heads. The rig is powered from the mains by 400 volt, a.c., 3-phase supply.

~~RESTRICTED~~

ITEM 19

## DETECTOR, MAGNETIC CRACK, TYPE R



**A.P. Reference** 880C, Vol. 1, Sect. 2, Chap. 3

**Stores Ref.** 4A/1615

**Classification** 2

**Overall dimensions**

**Length** 1 ft. 10 in.

**Width** 1 ft. 4 in.

**Height** 2 ft. 10 in.

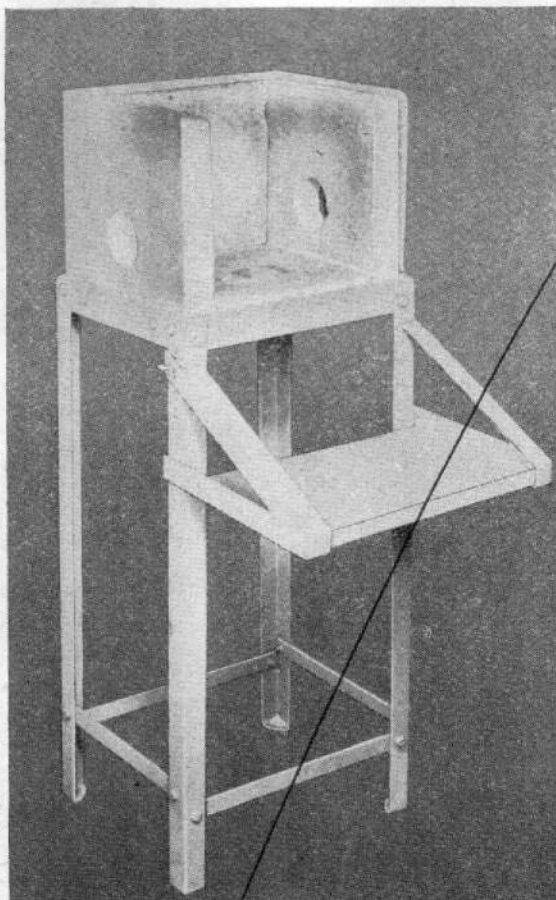
**Weight** 2 cwt. 1 qr. 14 lb.

**Brief description** This impulse magnetization test equipment is used in conjunction with an auto-transformer modification set (Stores Ref. 4A/1881), to incorporate a method of current control by the use of a tapped choke unit. The combined apparatus is suitable for the crack-detection of steel welds on engine bearers or similar structures where portability of the test set is necessary. The set is operated by 200/250 volt, 50 cycle, single phase, a.c. supply, and has an output within the range of 0-500 amps.

**RESTRICTED**

ITEM 20

## HEARTH, BRAZING COPPERSMITHS



AC76

**A.P. Reference**

Stores Ref. 4A/1164

**Overall dimensions**

Length 1 ft. 4 in.

Width 2 ft. 0 in.

Height 3 ft. 6 in.

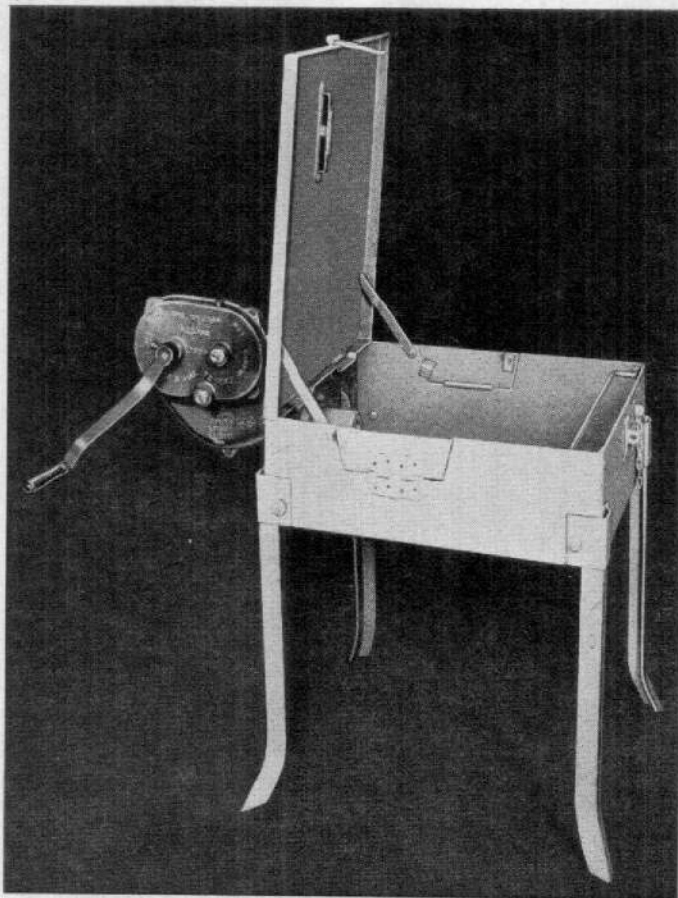
Weight 1 cwt.

**Classification 2**

**Brief description** This portable hearth is used for brazing or annealing small copper or brass parts, or when the conservation of heat is required for slow cooling purposes. The height of the tray for the blow lamp and tools is adjustable. The legs, tie bars, and tray are readily detachable to facilitate transportation.

**RESTRICTED**

## ITEM 21

**FORGE, FAN TYPE, COLLAPSIBLE****A.P. Reference**

Ref. No. 4A/612

**Classification 2****Overall dimensions**

Length 1 ft. 11½ in.

Width 2 ft. 4½ in.

Height 2 ft. 6 in.

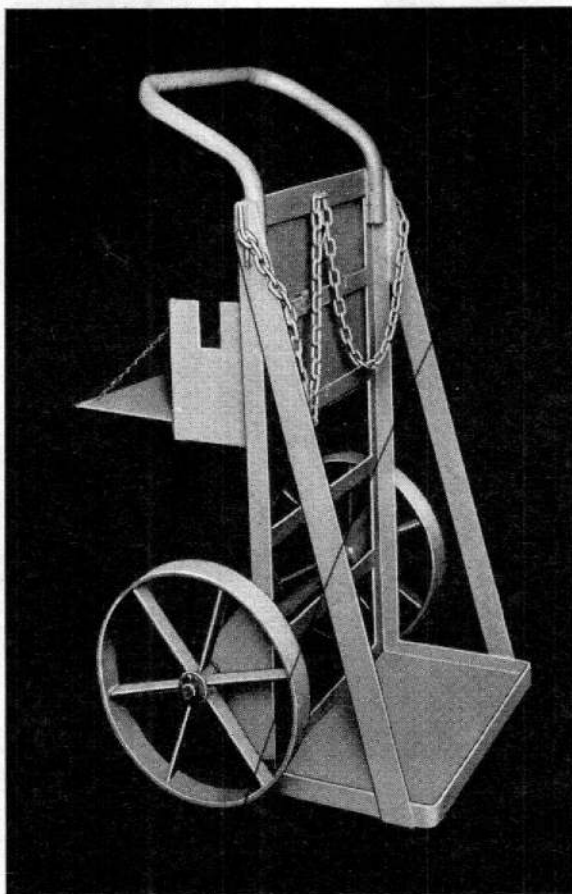
Weight 1 cwt. 3 qr.

**Brief description** This portable forge is included with the equipment necessary for mobile workshops. It is used also where riveting or shaped wrought-iron work has to be completed on outdoor structures. The legs and fan type blower are readily detachable to facilitate transportation.

**RESTRICTED**

ITEM 22

## TRUCK, CYLINDER, GAS WELDING



ACX

### A.P. Reference

Ref. No. 4A/1315

Classification 3

### Overall dimensions

Length 2 ft. 6in.

Width 1 ft. 8 in.

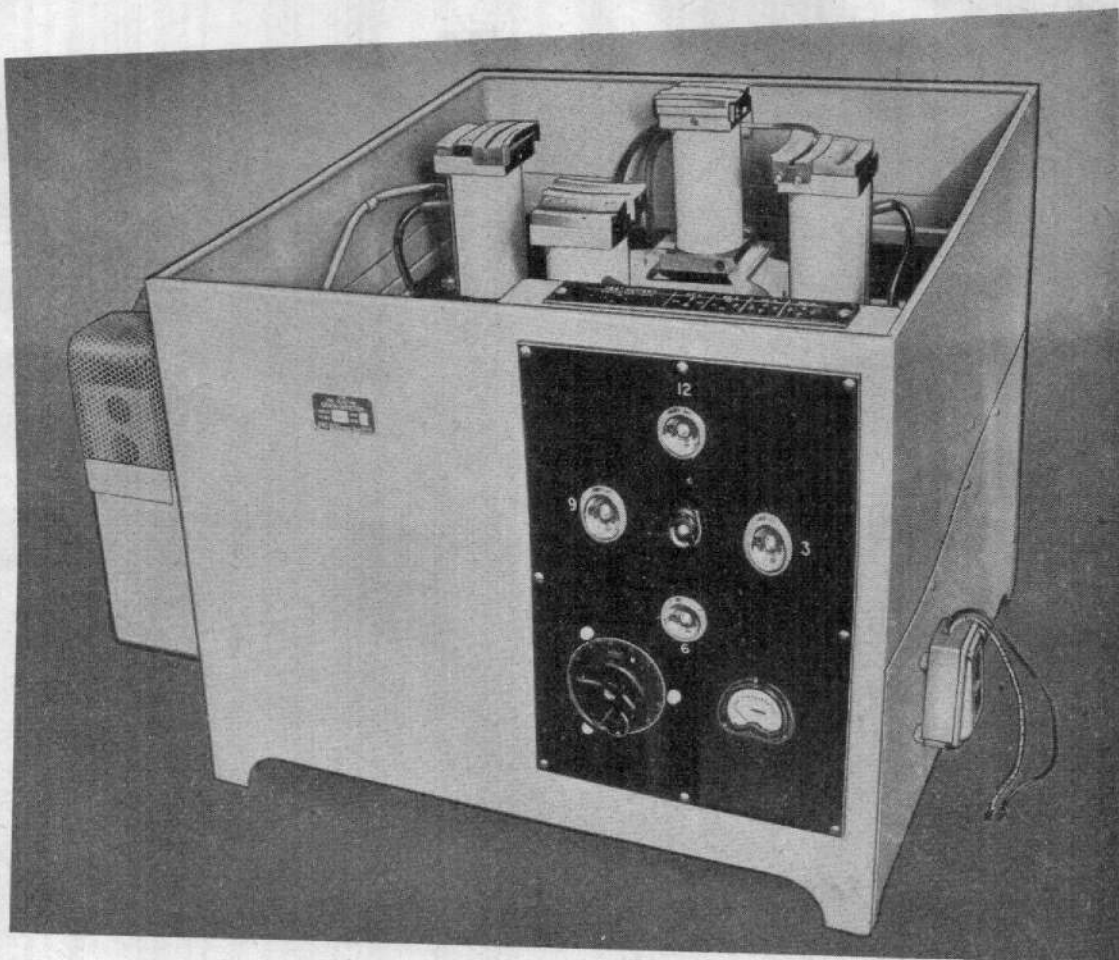
Height 4 ft. 0 in.

Weight 1 cwt.

**Brief description** This truck is used as a mobile oxy-acetylene unit. It is designed to carry one oxygen and one acetylene gas cylinder in a perpendicular position. The truck is provisioned with a container, which has a hinged lid and front flap, to hold the welding and cutting blowpipes, welding and filling rods, goggles and ancillary tools.

**RESTRICTED**

## DETECTOR, CRACK, MAGNETIC, TYPE T.D.1



**A.P. Reference** 880C, Vol. 1, Sect. 2, Chap. 3

**Stores Ref.** 4A/2241

**Classification** I

**Overall dimensions**

**Length** 4 ft. 1 in.

**Width** 3 ft. 6 in.

**Height** 2 ft. 8 in.

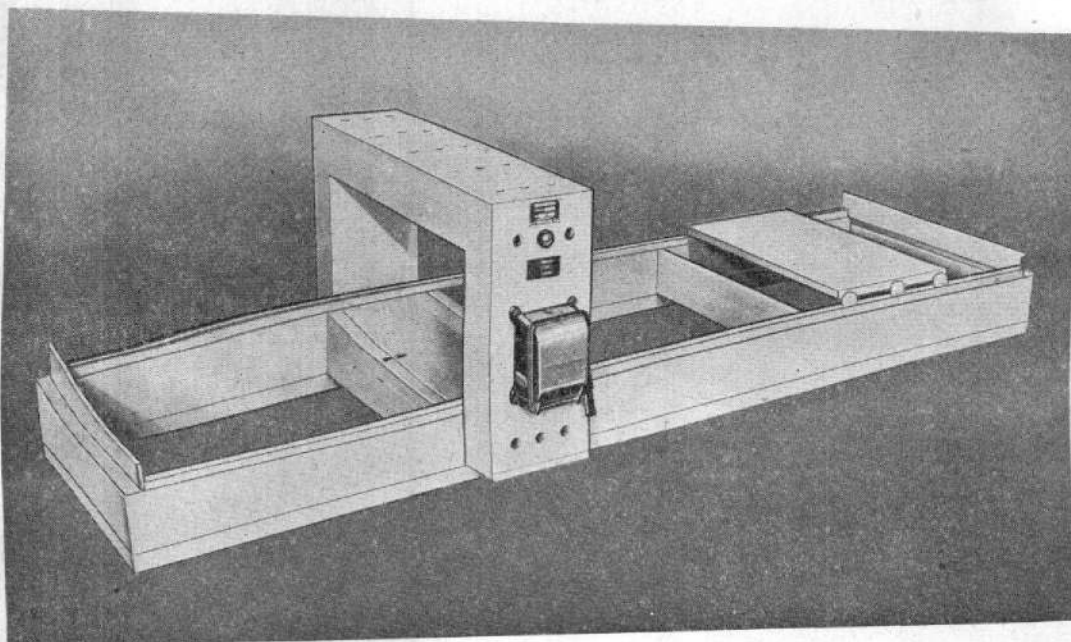
**Weight** 8 cwt.

**Brief description** This crack detector is intended for magnetic flux tests on the magnetic steel discs of turbine aero-engines; it can be used also, when provided with suitable pole pieces, for similar tests on large circular components of magnetic steel. The polarity of the four adjustable pole pillars can be altered by switchgear. The crack detecting ink is supplied from a reservoir in the machine, and is fed by pump through a length of hose fitted with a spray nozzle. The detector is arranged, before it leaves the manufacturers, for use on an a.c. mains supply of either 200-250 volts, 50 cycles, single phase, or, 380-440 volt, 50 cycles, single phase.

**RESTRICTED**

ITEM 24

## DEMAGNETIZER, TYPE D.31



A.P. Reference 880C, Vol. 1, Sect. 2, Chap. 3

Stores Ref. 4A/2252

Classification I

**Overall dimensions**

Length 10 ft. 0 in.

Width 4 ft. 0 in.

Height 2 ft. 4 in.

Weight 5 cwt.

**Brief description** This demagnetizer is an accessory of the Type T.D.1 magnetic crack detector (Item 23) and is used for the demagnetization of turbine discs or other wide, flat components. It has an aperture of 36 in.  $\times$  12 in., and the coil has an approximate current consumption of 56 amp. on an a.c. mains supply of 200–250 volt, 50 cycles, single phase. The demagnetizer can also be arranged for a mains supply of 380–440 volt, a.c., 50 cycles, single phase. The base of the machine is fitted with a wooden trolley, mounted on a track, on which the components being demagnetized are conveyed through the aperture.

~~RESTRICTED~~

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