

From

**WALLIS & STEEVENS LTD**  
ENGINEERS  
**BASINGSTOKE, ENGLAND.**

---





*Aerodrome*  
*Locks*  
WALLIS & STEEVENS LTD  
ENGINEERS.  
TELEGRAMS WALLIS BASINGSTOKE.  
TELEPHONE NOS. 151 & 152.

*Northants Iron Works.*  
*Basingstoke.*

HW

Janry. rth. 19 32

J. S. Bullough Esq. A.M.I.C.E.,  
City Engineer,  
NORWICH. *CL22M*

Dear Sir,

We understand by the Press that you are proposing to construct an aerodrome at Mousehold, and take this opportunity of handing you our light motor roller broadsheet and specification.

We have had the pleasure of supplying our rollers to the Air Ministry, and we have also supplied them (for Martlesham Heath aerodrome) a set of Cambridge ring rollers arranged for three sections covering 14'6" to be drawn by tractor.

*Let  
Mr. Mervin*  
If you are in the market we shall be very glad to receive your enquiries, which will have our immediate attention.

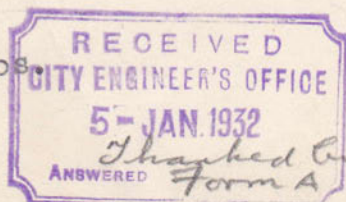
We remain,  
Yours truly,

FOR WALLIS & STEEVENS, LIMITED.

*W - and - W*

DIRECTOR.

Enclos.



*5/1/32.*

LIGHT WEIGHT

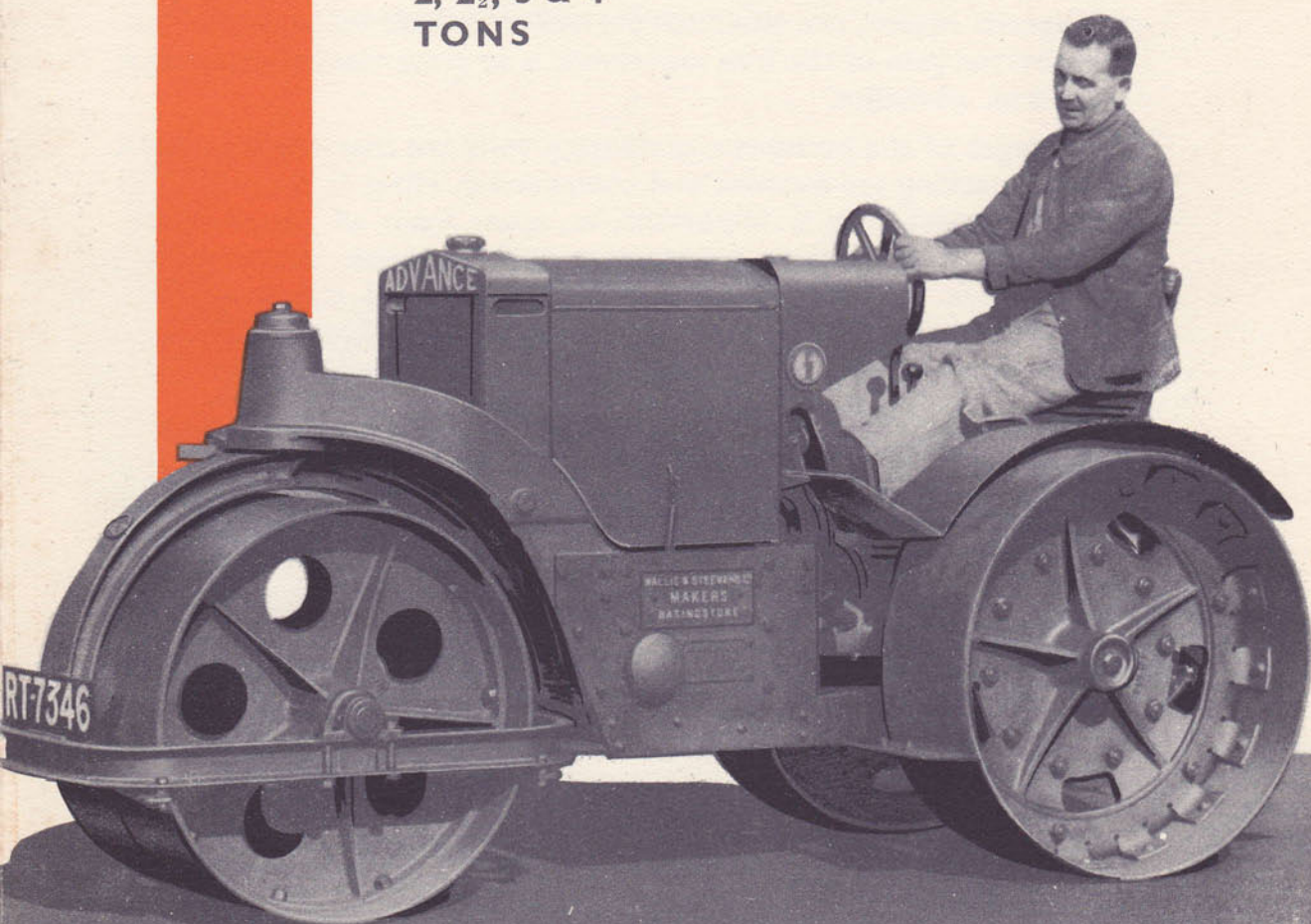
# Motor Rollers



A NEW  
RANGE OF  
ADVANCE  
MODELS

Type B

2, 2½, 3 & 4  
TONS





**I**n introducing this further range of "Advance" Rollers we have every confidence that it will find favour—in particular as it incorporates the distinctive features of our "Advance" design as applied to our larger motor and steam models, and which are equally an asset for the work required from a roller of lighter weight.

In general layout the Type B Roller is very compact—wheel base is short and centre of gravity low, making for handiness and stability in operation ; also careful attention has been paid, as in our heavier models, to disposition of weight and proportion of rolls, so as to, as nearly as possible, equalise compression effect on material being rolled over the full rolling width.

The rear axle is of our Patent Automatic Cambering construction with which the rolls, instead of being held rigidly, either parallel or at a fixed inclination, are free to adjust themselves to varying conditions over a range of movement restricted within limits suited to normal requirements. A spring abutment forms part of the construction, and this being common to both axles they work in unison, not independently. Provision is made so that, if desired for any special reason, the axles can be locked to hold rolls parallel, but the obvious gain of the free movement is so great that its restriction is seldom advisable.

Advantages of the automatic cambering rolls are that cutting in and surface marking are avoided and compression effect is central. This central compression is important, as, apart from all round better rolling effect, there is no tendency to push materials outwards, and paths, drives and other work can be consolidated effectively right up to the extreme edges. On grass it is equally advantageous, as it avoids ridging and ensures a smooth, evenly consolidated surface.

In the 2, 2½ and 3 B models the rolls have reversible rims, giving alternative rolling widths with the same machine without expense of extra rolls, and chassis being standard for all models this further admits of conversion to alternative weights by substituting appropriate rolls.

From the illustrations it will be observed that there are no projections on either side, beyond roll edges, to prevent working right up to a wall or other obstruction.



The Forecarriage is of our underslung type, giving a wide range of movement to front rolls without transmitting any rocking motion to the chassis, and the steering is by overhead worm and quadrant, giving easy and direct control.

The 4-cylinder overhead valve engine is of ample capacity, and in conjunction with the 4-speed gearbox (reverse operates in all four gears) provides a flexible power unit and gives adaptability for most efficient operation under varying working conditions.

Transmission is by spur and bevel gears, entirely enclosed up to final drive and running in oil bath, thus saving wear and tear and wastage of power by ensuring efficient lubrication and protection from dust and dirt. Final drive is by spur gears, and as the rolls revolve on their axles and each is independently driven, driving strain on axle is eliminated.

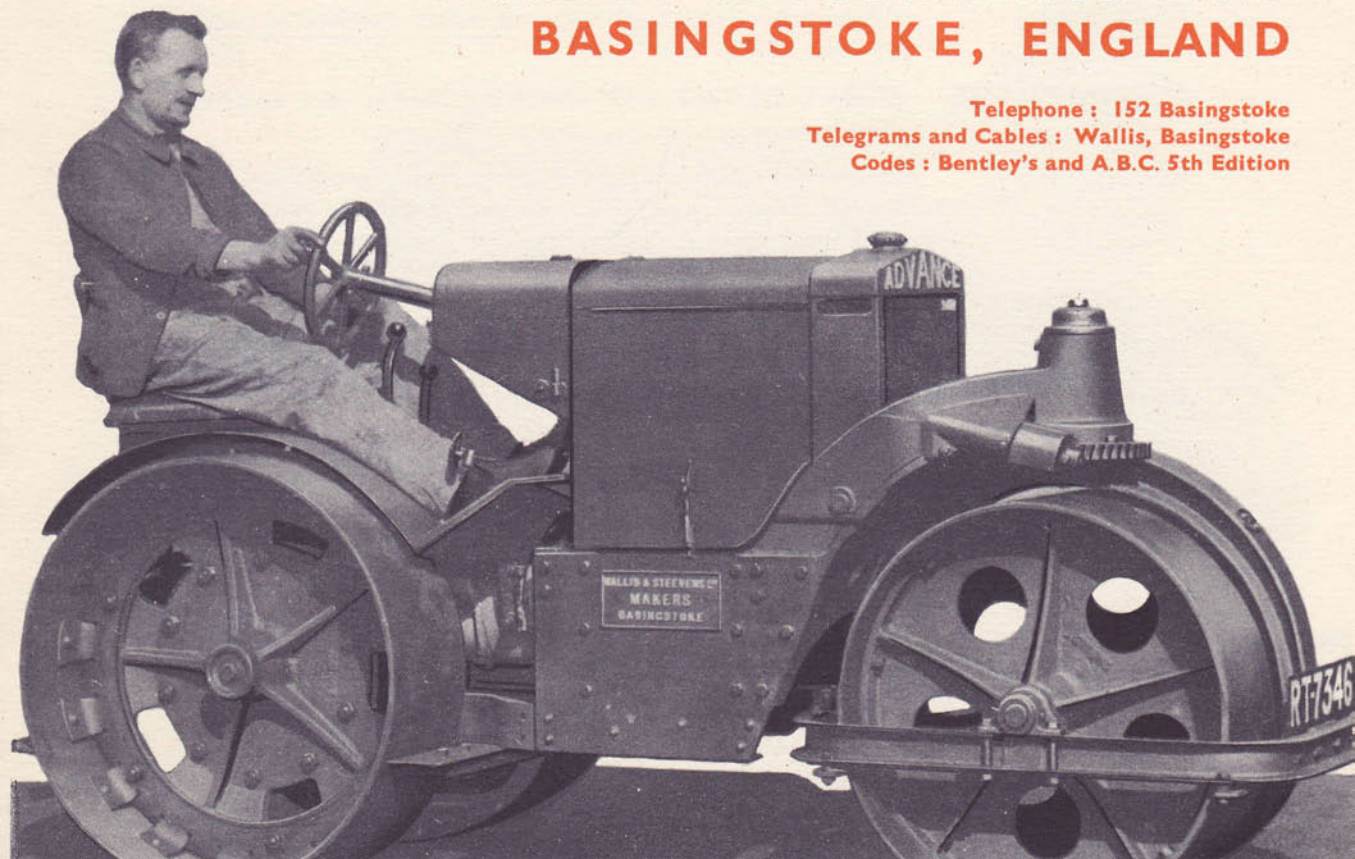
Brakes operate on drums of large diameter and are controlled by foot pedal or hand operated screw. Grease gun lubrication is provided to roll hubs and other bearings which are apart from the enclosed transmission.

Controls are compactly arranged and driving seat so positioned as to promote maximum convenience in handling.

Not only is the Type B Roller of high class construction throughout, but from the foregoing short description it will be recognised that it has been designed with a view to efficiency, economy and reliability in operation in conjunction with most effective rolling results.

## **WALLIS & STEEVENS LTD** **BASINGSTOKE, ENGLAND**

Telephone : 152 Basingstoke  
Telegrams and Cables : Wallis, Basingstoke  
Codes : Bentley's and A.B.C. 5th Edition





# LIGHT WEIGHT ADVANCE MOTOR ROLLERS TYPE - B

MODELS	2B	2½B	3B	4B
Code Word	Zwotl	Zwown	Zwubs	Zwuct
WEIGHT in Working Order	2 tons	2½ tons	3 tons	4 tons
Rolling Width	3' 10" or 3' 2"	4' 2½" or 3' 6½"	4' 2½" or 3' 6½"	4' 0"
Rolls—Hind	3' 0" × 12¾" Reversible Rims	3' 0" × 15" Reversible Rims	3' 0" × 15" Reversible Rims	3' 1¼" × 16"
„ Front	All models 2' 9" diameter × 2' 0" total width			

POWER UNIT	4-cylinder Petrol Engine, 13½ B.H.P., with overhead valves ; Zenith Carburettor ; Magneto Ignition.
GEAR BOX	4 speeds, 1, 1½, 2½ and 4 m.p.h. <u>Reverse on all gears.</u>
TRANSMISSION	Spur and bevel gears enclosed and running in oil bath.
FINAL DRIVE TO REAR ROLLS	By spur gears ; the rolls revolve on their axles and each is positively driven.
REAR AXLE	“Advance” Patent, giving <u>automatic cambering action</u> to rear rolls.
FORECARRIAGE	Underslung type with overhead worm and quadrant steerage.
ROLLS	Model 2B has wrought rims to both front and rear rolls. Model 2½B, wrought steel rims to front rolls, cast rims to rear rolls. Models 3B and 4B have cast rims to both front and rear rolls. Cast rims can be plated at extra charge.
WHEEL BASE	5' 9"
ADDITIONAL FITTINGS	Differential Gear ; Driver's Awning ; Power take-off for driving machinery ; Water Sprayers and Supply Tank.

Right is reserved by makers to modify details at their discretion, illustrations and dimensions in this list must, therefore, be taken as being approximate only unless confirmed as correct.



# **“Advance”** LIGHT WEIGHT **MOTOR ROLLERS** TYPE B

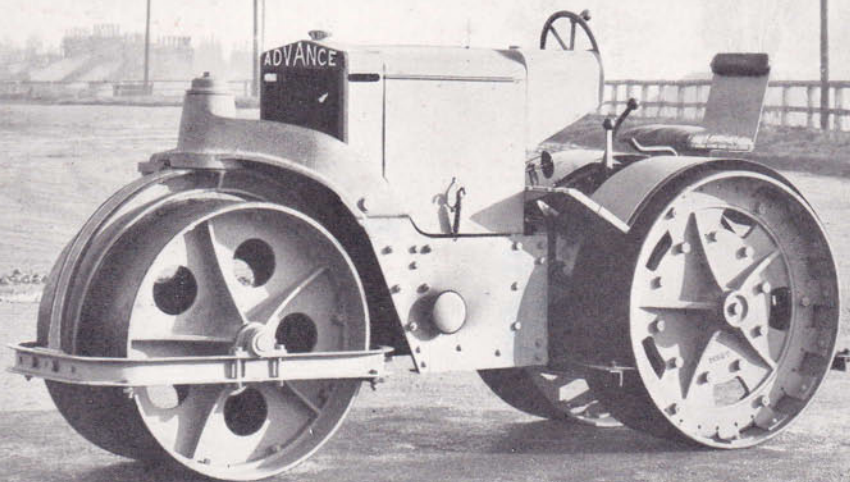


**WALLIS & STEEVENS LTD.**  
**BASINGSTOKE, ENG.**

TELEPHONE: 152 BASINGSTOKE.  
TELEGRAMS & CABLES: "WALLIS," BASINGSTOKE.  
CODES: A.B.C., 5th Edition  
and BENTLEY'S.

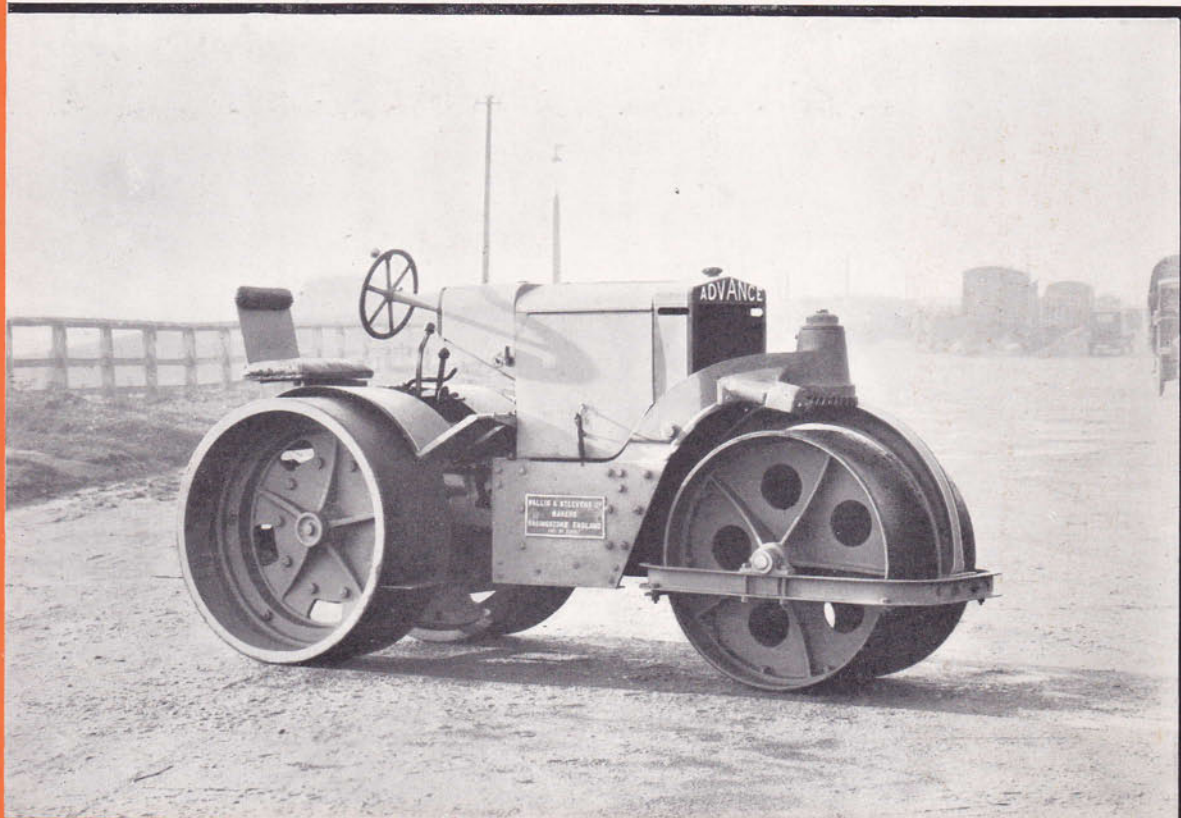






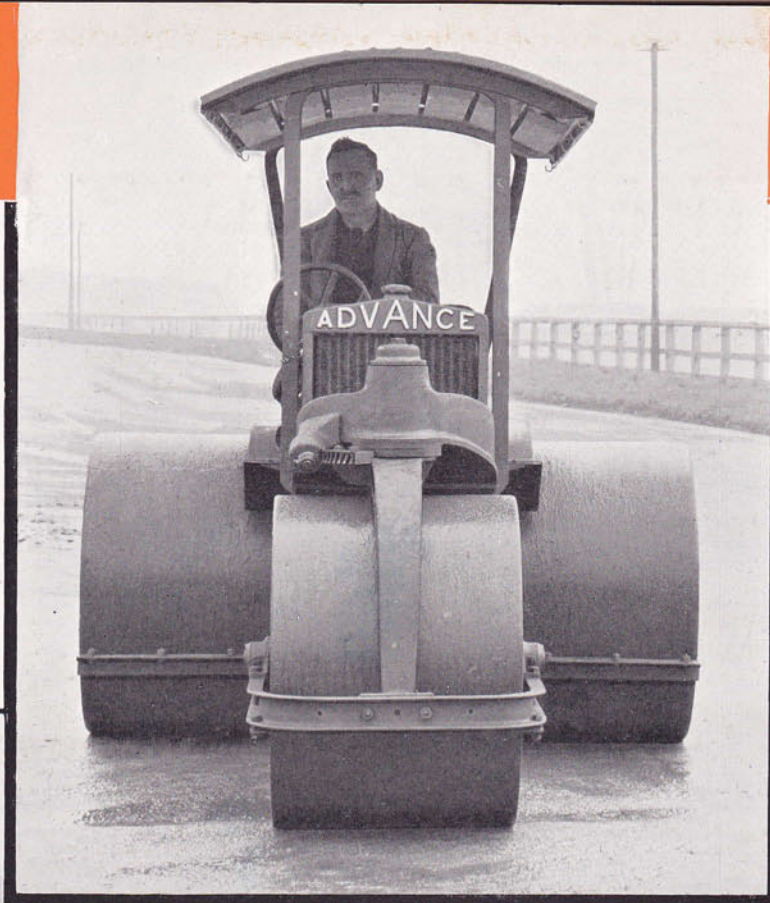
MODEL 2<sub>B</sub>

MODEL 2<sub>½B</sub>

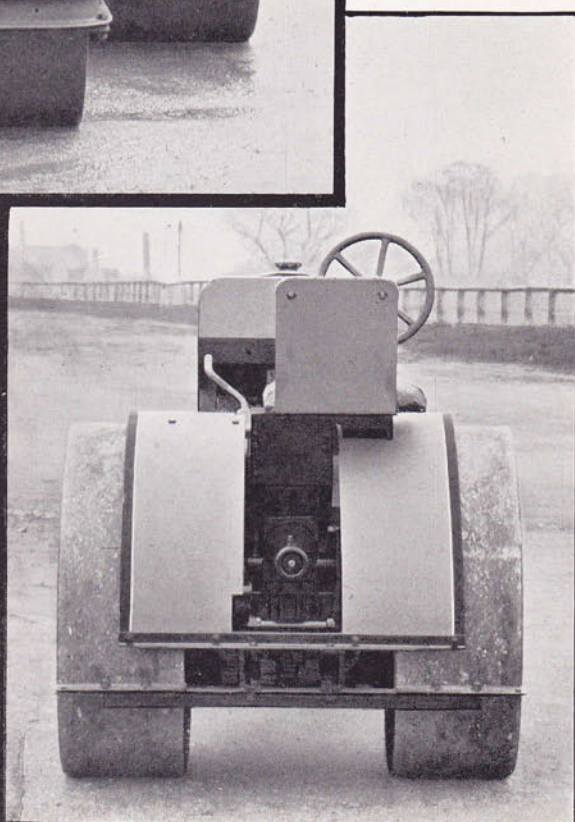
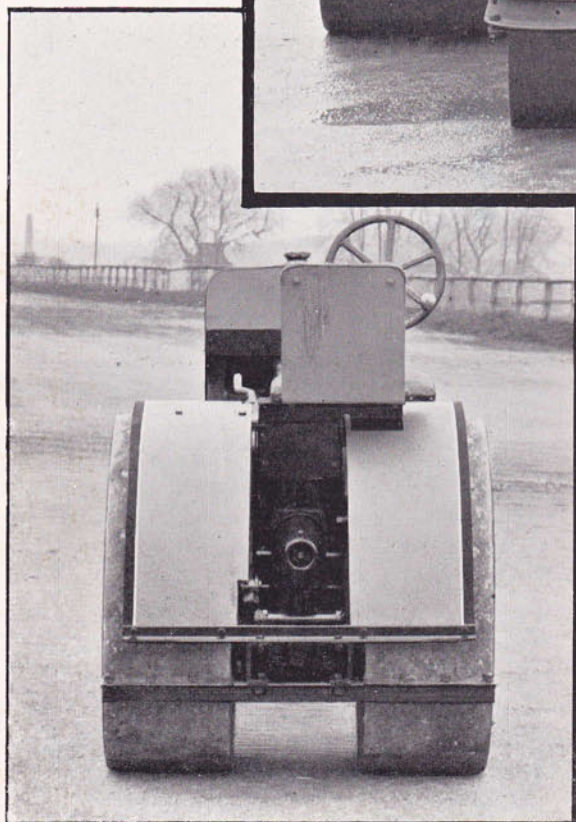




Model with  
extra wide  
rear rolls  
giving rolling  
width of 6 ft.



Specially  
adapted for  
Parks,  
Sports Grounds,  
Aerodromes,  
etc.



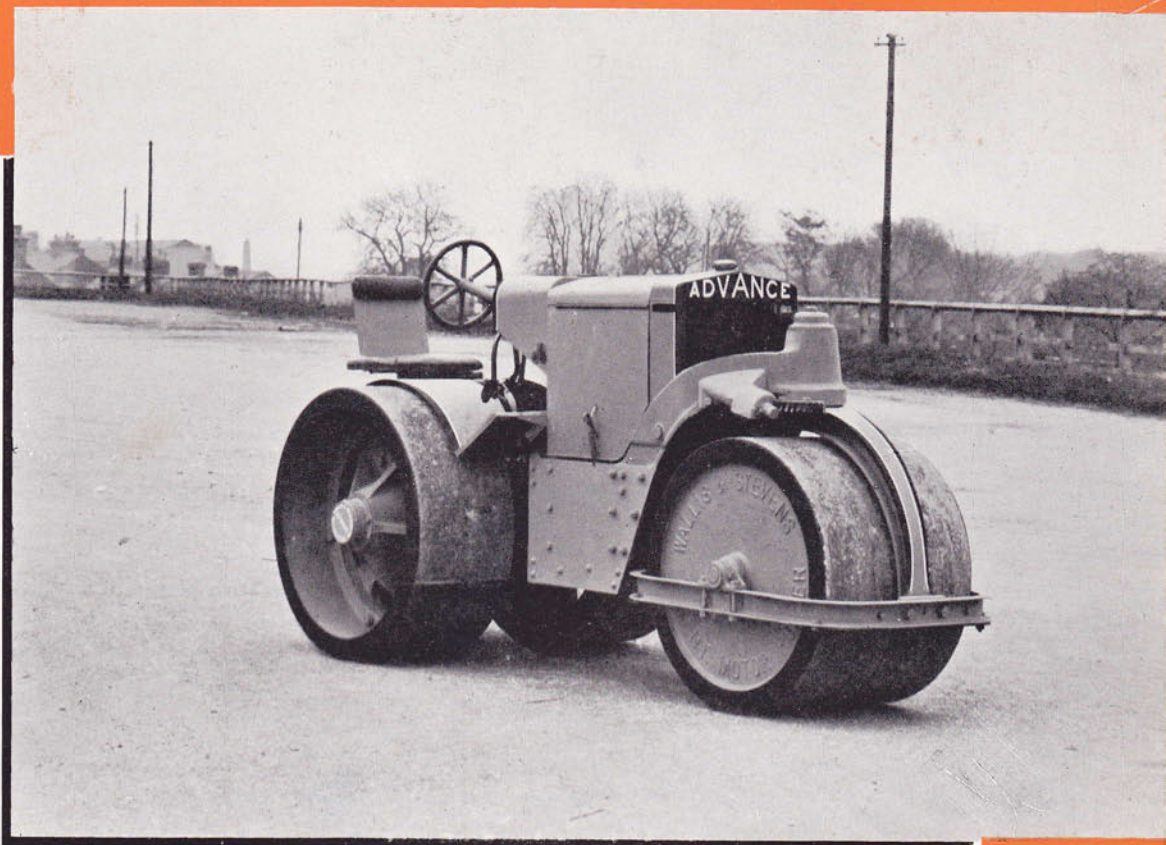
Showing alternative rolling widths obtained by reversing rims on rear rolls of Model 2B—  
reversible rims also fitted to Models 2½B and 3B.

**WALLIS & STEEVENS LTD.**

ENGINEERS

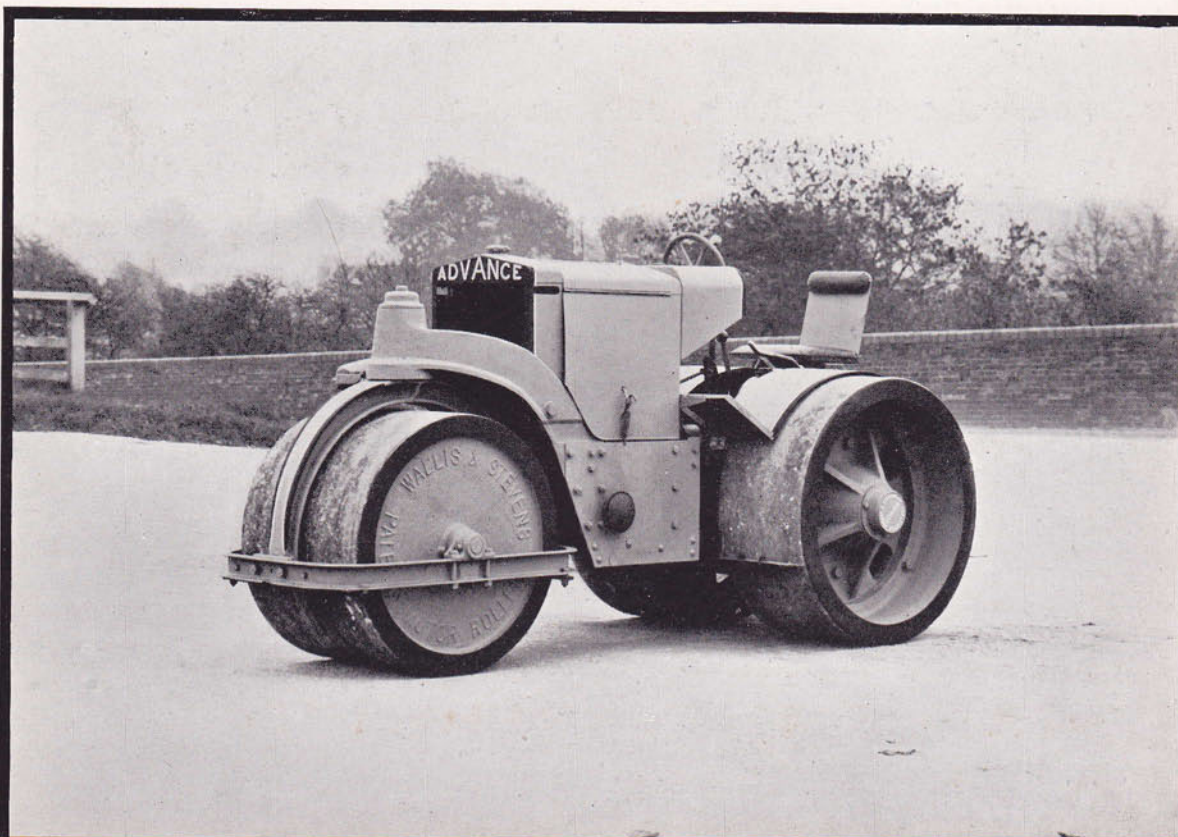
BASINGSTOKE





MODEL 3<sub>B</sub>

MODEL 4<sub>B</sub>





Weights  
two  
to  
four  
tons



Rolling  
Widths  
3 ft. 2 in.  
to  
6 ft.

## All Type B MODELS

HAVE

4-CYLINDER ENGINE

4 SPEEDS

REVERSE ON ALL GEARS

ENCLOSED TRANSMISSION

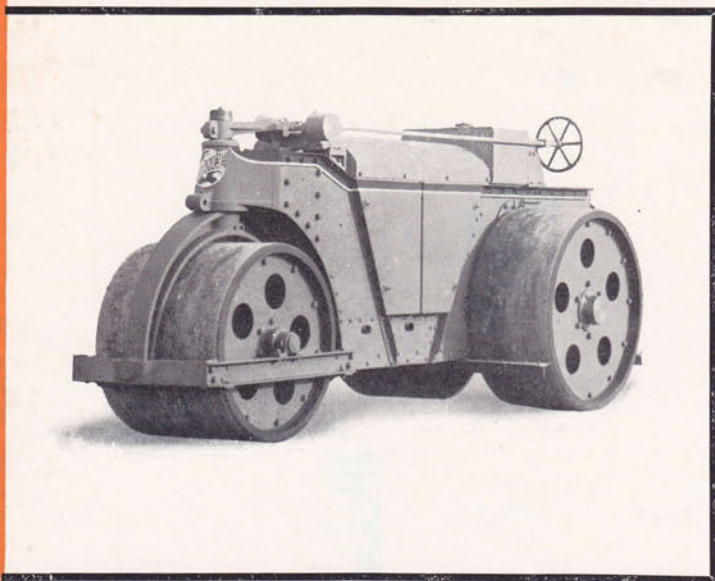
DOUBLE SPUR-GEAR FINAL DRIVE

**PATENT AUTOMATIC CAMBERING AXLE**

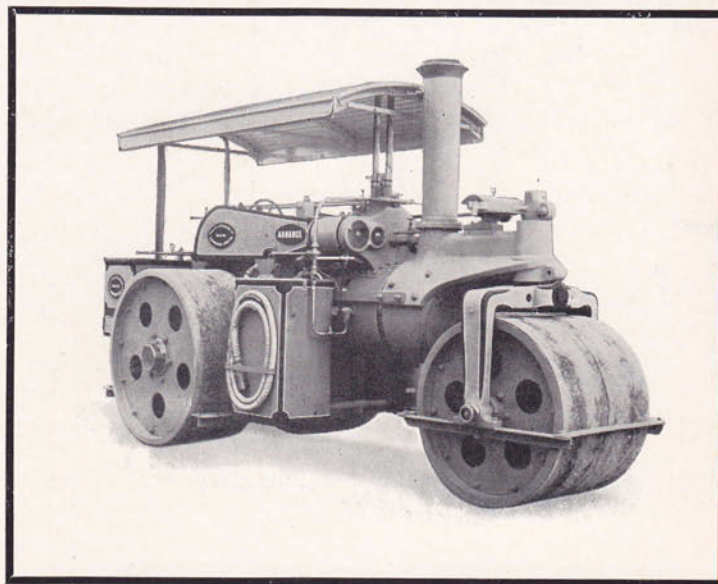
UNDERSLUNG FORE-CARRIAGE



# OTHER "WALLIS" PLANT



DIESEL OIL,  
PARAFFIN, PETROL AND STEAM ROLLERS  
(6 TONS UPWARDS)  
COLD EMULSION SPRAYERS AND CHIPPING DISTRIBUTORS.

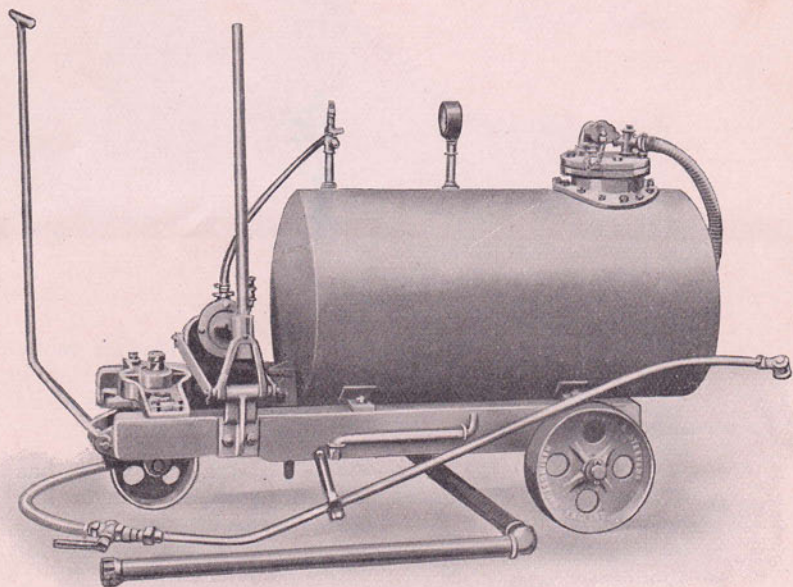




No. 3 Universal Vacuum Filling Type.

# "PERFECT" SPRAYER

For Cold  
Emulsions



MAKERS :

## WALLIS & STEEVENS L<sup>TD.</sup>

BASINGSTOKE

England

Telephone 152

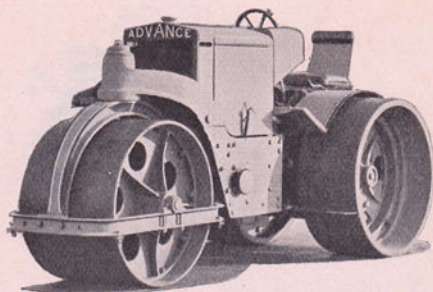
Telegrams : Wallis



# 3 aids to good roads

## "ADVANCE" ROLLERS

Combine distinctive design with quality and efficiency. PETROL, PARAFFIN, DIESEL OIL, STEAM Models.



2 TONS AND UP.



## "PERFECT" HAND SPRAYER

A very efficient and easily portable machine for handling cold emulsions.

## "HANDY" CHIPPING DISTRIBUTOR

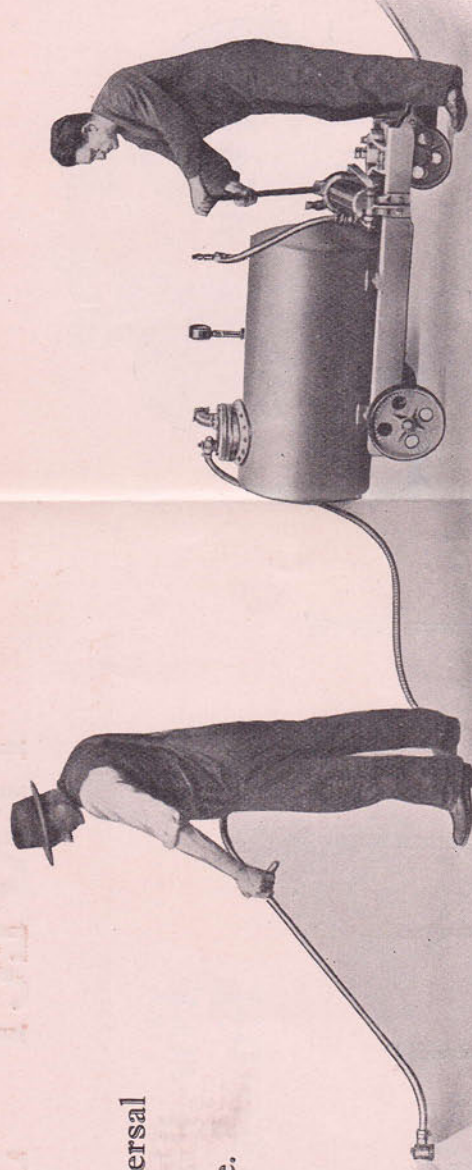
Gives rapid and even cover without waste of materials and without skilled labour.



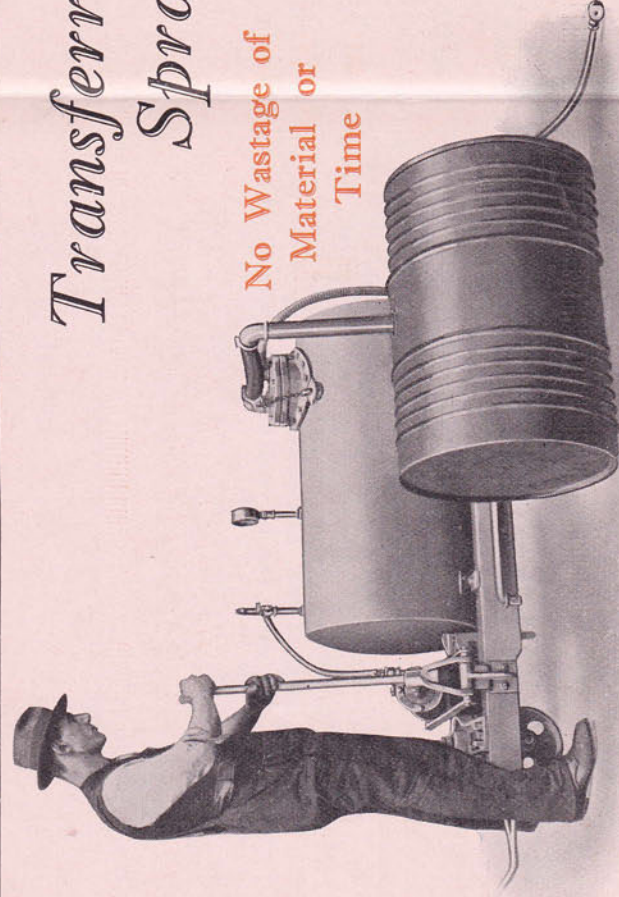


# The "PERFECT" Hand Sprayer

No. 3 Universal  
Vacuum  
Filling Type.



No Complicated  
Mechanism  
Utility  
and Economy



No Wastage of  
Material or  
Time

## Transferring Emulsion to Spraying Tank by Vacuum

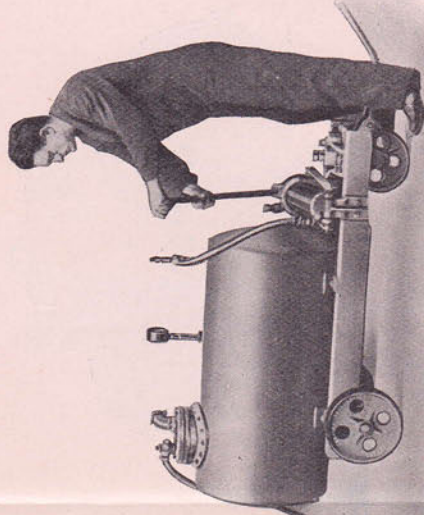
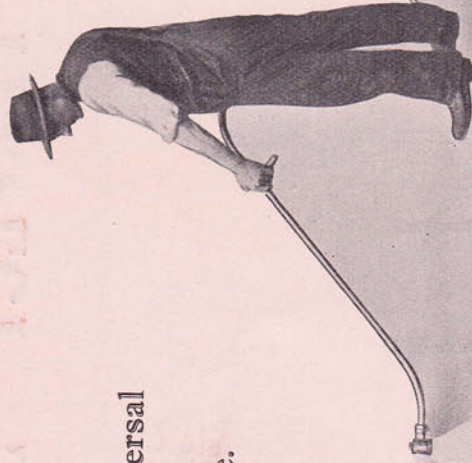
**T**HE operation of transferring emulsion from its container or barrel is very simple and efficient. The strainer end of transfer pipe supplied with machine is placed in the barrel or container and the flexible end coupled to filling elbow on manhole cover: on pump coupling pipe being moved from the pressure to vacuum connection on the pump barrel, operation of pump creates a vacuum in spraying tank and emulsion is transferred from its container to spraying tank CLEANLY AND RAPIDLY.

*Illustration shows a container of returnable type in position for emptying, but practically any make, size and type of container or barrel can be similarly dealt with.*



# The "PERFECT" Hand Sprayer

No. 3 Universal  
Vacuum  
Filling Type.



No Complicated  
Mechanism  

---

Utility  
and Economy

**THE No. 3 "Perfect" Hand Sprayer** provides a really efficient, reliable and economical portable spraying outfit for dealing with cold road emulsions—some of its advantages are:—

**Good capacity, yet readily handled.** Spraying tank has a capacity of 42 gallons—overall width of Sprayer has been kept down so that gates and narrow pathways can be negotiated: also centre of gravity is low, making for stability.

**Emulsion used from any type of container or barrel.** The considerable variation in sizes of containers or barrels used for transport of cold emulsions, makes this an important point.

**No complicated mechanism,** so can be satisfactorily used with unskilled labour. Apart from control cock on spray pipe, there are no taps or cocks to leak or choke and so waste time—there are no moving parts in contact with emulsion. Sprayer is of substantial construction throughout—the special design Pump is of barrel plunger type, easy to operate and with nothing in its construction to give trouble.

**No wastage of materials** or loss of time in transferring emulsion to spraying tank. See illustration and explanatory note on front of fold.

**Economy in spraying.** Materials can be used to best advantage, as distribution is under control and spraying effective—3 jets are supplied with machine, so density of spray can be varied.

Spraying tank is of welded steel with large handhole at top and a second handhole is conveniently positioned at rear end to facilitate thorough cleaning. A safety valve is fitted, also a compound gauge registering vacuum and pressure. A strainer is provided on transfer pipe, also on delivery pipe in tank—filling and delivery connections are mounted on manhole cover, so are very easily dismantled. Delivery connection is provided with two screw caps, removal of which permits a clearing rod to be run down either tank delivery pipe or spray pipe line. Standard spray pipe consists of 10-ft. of armoured hose and 5-ft. spraying extension fitted with control cock and spray nozzle. Three alternative jets, an adjustable spanner, also transfer pipe for filling, are included in the outfit.

Price £27-10-0 on rail Works.



# The "HANDY" Chipping Distributor

*For Spreading Grit, Chippings, Gravel, &c.*

**T**HIS Distributor is an excellent auxiliary for spraying operations, as by its use chippings, grit or gravel can be quickly, efficiently and economically spread by unskilled labour. It is operated by one man (walking on gritted surface) and gives an even coating of any desired thickness. The Patent Divided Roll Feed provides three widths of spread so that overlapping is avoided and, as distribution is only where required, there is no waste of material. Approximately 100 yards can be covered in one minute. Capacity of hopper, approximately,  $5\frac{1}{2}$  cubic feet.

*The Gritter not only gives a far more uniform distribution than is possible by hand spreading, but effects a considerable saving in cost of both labour and materials.*

**"Advance"**

Light Weight.

MOTOR

ROLLERS

Type B.