

May, 1944



# Abstracts from the Scientific and Technical Press

(No. 122. April, 1944)

AND

# Titles and References of Articles and Papers Selected from Publications (Reviewed by R.T.P.3)

TOGETHER WITH

## List of Selected Translations

(No. 68)

---

London :

“THE ROYAL AERONAUTICAL SOCIETY”

with which is incorporated “The Institution of Aeronautical Engineers”

4, Hamilton Place, W.1

Telephone : Grosvenor 3515 (3 lines)

ABSTRACTS FROM THE SCIENTIFIC AND TECHNICAL PRESS.

---

*Issued by the  
Directorates of Scientific Research and Technical Development, Ministry of Aircraft Production.*

*(Prepared by R.T.P.3.)*

---

No. 122. APRIL, 1944.

---

Notices and abstracts from the Scientific and Technical Press are prepared primarily for the information of Scientific and Technical Staffs. Particular attention is paid to the work carried out in foreign countries, on the assumption that the more accessible British work (for example that published by the Aeronautical Research Committee) is already known to these Staffs.

Requests from scientific and technical staffs for further information of translations should be addressed to R.T.P.3, Ministry of Aircraft Production, and not to the Royal Aeronautical Society.

Only a limited number of the articles quoted from foreign journals are translated and usually only the *original* can be supplied on loan. If, however, translation is required, application should be made in writing to R.T.P.3, the requests being considered in accordance with existing facilities.

NOTE.—As far as possible, the country of origin quoted in the items refers to the original source.

---

*The Superposition of Undamped Two-Dimensional Pressure Waves of Large Amplitude.* (H. Pfriem, *Akustische Zeitschrift*, Vol. 7, No. 2, March, 1942, pp. 56-65.) (122/1 Germany.)

The author considers the single large amplitude pressure wave as made up of elementary waves following each other in succession, each wave travelling at the particular speed corresponding to the condition existing in the wake of its predecessor. In the case of an originally homogeneous atmosphere, each elementary wave will travel at a constant speed which however will differ from element to element. If, however, two elementary waves overlap, due to two pressure pulses travelling in opposite direction along the same path, the gas particle subjected to the simultaneous action of two elementary waves will assume a resultant state which will determine the new speed of propagation. If  $a_1$ ,  $u_1$  represent the sonic state and velocity at given particles when subjected only to

the action of elementary wave 1 travelling in the +x direction (i.e., direction of increasing particle velocity) and  $a_2, u_2$  represent similar effects of wave 2 travelling in the opposite direction, the author shows the new velocities of 1 and 2 on meeting as given by:—

$$+(a+u) = \left\{ \frac{\gamma+1}{\gamma-1} \right\} a_1 - \left\{ \frac{3-\gamma}{\gamma-1} \right\} a_2 - a_0 + u_0 \quad (1)$$

$$-(a-u) = - \left\{ \frac{\gamma+1}{\gamma-1} \right\} a_2 - \left\{ \frac{3-\gamma}{\gamma-1} \right\} a_1 - a_0 - u_0 \quad (2)$$

where  $a_0$  and  $u_0$  refer to conditions in the undisturbed atmosphere. The problem of superposition of large amplitude waves is therefore solved provided we can determine the time and place of meeting of the elementary waves of known sonic state. The author shows that this problem reduces itself to the solution of the two simultaneous partial differential equations:—

$$\frac{\partial a_1}{\partial t} + (a+u) \frac{\partial a_1}{\partial x} = 0 \quad (3)$$

$$\frac{\partial a_2}{\partial t} - (a-u) \frac{\partial a_2}{\partial x} = 0 \quad (4)$$

The general solution of these equations has been given by Riemann but is exceedingly complex. Reasonably simple expressions for  $x$  and  $t$  are however obtained, if the gas is supposed to be monoatomic. In this case we obtain:—

$$x - (a+u)t = \frac{\partial}{\partial a_1} \left[ \frac{F(a_1) + G(a_2)}{a} \right]$$

$$x + (a-u)t = \frac{\partial}{\partial a_2} \left[ \frac{F(a_1) + G(a_2)}{a} \right]$$

where  $F(a_1)$  and  $G(a_2)$  are functions depending on the shapes of the two large amplitude disturbances and are considered as given. Knowing the time and place of meeting of two elementary waves, the shape of the pressure waves in the zone of superposition can be determined. It appears that the mutual distortion is strictly limited to this field of superposition and that the waves, after leaving this zone and re-entering the original homogeneous atmosphere, have exactly the same shape as if they had progressed separately through the homogeneous atmosphere. They thus differ from their original shape only by the general steepening of the front associated with the normal propagation of large amplitude waves. It is interesting to note that in the special case of a gas with  $\gamma=3$ , the distortion of the waves in the field of superposition is eliminated. This follows from (1) and (2) where, on making the necessary substitutions, we find:—

$$a+u = 2a_1 - a_0 + u_0$$

and

$$a-u = 2a_2 - a_0 - u_0$$

Inserting these values in (3) and (4), we see that the simultaneous differential equations now become mutually independent, each representing a progressive wave travelling at a speed depending only on its proper sonic condition.

*On the Question of Using Unshrouded Blades in Gas Turbines.* (I. Shevyakov, Sovietskoye, Kotloturbostroynie, No. 1, Jan., 1940, pp. 30-32.) (122/2 U.S.S.R.)

In impulse turbines using steam, it is usual to surround the outer blade tips with a ring or shroud. This reduces leakage losses and also strengthens the blade assembly, but obviously raises the blade temperature since the cooling effect due to the rotor is reduced. Efficient blade cooling is the chief limiting factor in gas turbines and the question thus naturally arises whether in their

case the possibility of utilising a higher gas temperature in the absence of a shroud outweighs the drop in power due to increased leakage. For this purpose the author has carried out model experiments on a rotor sector containing six blades and subjected to the impact of air at about 200 m./sec., the reaction being statically balanced. The blades were 17 mm. in height, the corresponding nozzle exit diameter being 15 mm.

Measurements were made both with shrouded and unshrouded blades, intermediate readings being also taken with the shroud placed at various distances from the blade tips and thus providing radial clearances varying from 0 to 3 mm. Over this range, the result can be represented by the equation

$$\lambda = \frac{.04}{(.16 + \sigma)} + .75$$

where  $\lambda = \frac{\text{torque measured with radial clearance } \delta}{\text{torque at zero clearance}}$

$\sigma =$  relative clearance

$= \delta/l$

$\delta =$  actual clearance

$l =$  height of blade

With the shroud completely removed (rotor without casing, *i.e.*, infinite clearance)  $\lambda \rightarrow .8$ .

Slightly better results can be obtained, if the axes of the nozzles are arranged to lie on a conical instead of a cylindrical surface. Thus an inclination of  $10^\circ$  with the axis of rotation raises  $\lambda_{\sigma=\infty}$  to .84 and  $\lambda_{\sigma=.05}$  now becomes .955 instead of .940 as for the cylindrical case. It is evident that nozzle inclination reduces the leakage. Since, however, shock losses due to impact of jet with rotor disc are likely to become more pronounced with inclination of jet, the optimum inclination will depend on the particular design investigated and can only be obtained experimentally. In any case the net benefit associated with nozzle inclination is not likely to be large for reasonably small clearances.

Provided that relative clearances of the order  $\sigma = .05$  can be maintained the leakage effect on torque is less than 5 per cent. The author is of the opinion that this slight loss is negligible compared with the advantage due to improved blade cooling made possible by the absence of the shroud and unshrouded blades should therefore always be adopted in gas turbines.

*A Photographic Profile Recorder for Airscrews and Model Aerofoil.* (R. Kuhl and K. Raab, *Luftwissen*, Vol. 5, No. 5, May, 1938, pp. 183-185.) (122/3 Germany.)

The aerofoil under examination is supported along its longitudinal axis and subjected to intense transverse illumination by a very narrow plane beam of light. The resulting illuminated section is photographed by a camera which rotates about the specimen, special gearing ensuring that the photographic plate maintains its position in space during the rotation and thus only undergoes a parallel displacement.

The plane of the plate and that of the light used for the illumination are parallel and both are perpendicular to the axis of rotation of the camera and the plate axis. At the same time the optical centre of the objective lies on the line joining the points of intersection "plate plane—plate axis" and "light plane—camera axis of rotation." The optical axis of the camera then lies on a conical surface and since the light beam takes part in the camera rotation, all parts of the contour are photographed in succession and a complete and closed contour is recorded for a camera rotation of  $360^\circ$ . Successive contours along the longitudinal axis of the aerofoil are obtained by displacing the latter longitudinally

through the camera cone, the maximum chord which can be accommodated in the apparatus being limited by the circular path of the objective ( $\sim 30$  cm.). Since the carriage for the longitudinal motion can deal with aerofoils up to 3 m. in length, the apparatus will deal with full-scale propeller blades.

In order to reduce cost, the recorded profile is reduced to half-scale, standard plates  $13 \times 18$  cm. being used in the camera.

Examples of profile distribution along the axis of an airscrew are given. These are photographed on the same plate after successive displacement of the airscrew. By means of reference marks attached to the propeller and reproduced photographically the pitch setting of each section can be determined.

The recorder is also of use for measuring up model aerofoils and checking possible twist or distortion. The profile lines on the plate are very sharp and the co-ordinates can easily be measured to  $1/100$  mm.

*Method of Increasing the Low Temperature Stability of Cellulose Acetate Films.*  
(Z. Rogovin and Z. Ivanova, J. Appl. Chem., U.S.S.R., Vol. 14, No. 6, 1941, pp. 834-842.) (R.T.P. Translation No. 2,121.) (122/4 U.S.S.R.)

The increased brittleness at low temperature ( $-50^{\circ}\text{C}.$ ) of articles made of cellulose acetate is one of their chief defects and a wide field of application of such products would open out if this difficulty could be overcome.

Whilst it is possible that the low temperature stability or frost resistance of high polymers can be improved by the addition of suitable plasticisers, the authors are of the opinion that a more profitable method of attack is a closer study of the primary material itself and for this reason they have carried out extensive experiments on the effect of molecular size, fractionation, amount of etherification, method of film formation and concentration of acetate on the low temperature stability of unplasticised films, averaging  $200 \mu$  in thickness. The temperature range over which the mechanical properties were tested varied from  $+80^{\circ}\text{C}.$  to  $-50^{\circ}\text{C}.$ , the feature examined being the ultimate tensile strength of the film ( $\text{kg./mm.}^2$ ), the percentage elongation at fracture and the number of alternate creasings the film could stand before fracture. The authors consider the latter test as the most valuable in determining the brittleness of the film being much more sensitive than the reduction in percentage elongation. This is borne out by the following table.

Representative figures for a commercial unplasticised film. These were obtained on testing machines specially devised for the purpose.

Temperature.	Ultimate tensile.	% Elongation.	Number of repeated creases before fracture.
$+80^{\circ}\text{C}.$	7 $\text{kg./mm.}^2$	20	300
$+20^{\circ}\text{C}.$	9 $\text{kg./mm.}^2$	20	150
$-50^{\circ}\text{C}.$	12 $\text{kg./mm.}^2$	10	2

From the data given by the authors it appears that the principal methods by which low temperature stability of the commercial product can be improved are:—

- (1) Fractionisation, *i.e.*, ensuring that the sample is homogeneous and of high molecular weight ( $\sim 70,000$ ).
- (2) Reduction in combined acetic acid below 50 per cent.
- (3) High concentration ( $\sim 25$  per cent.) of cellulose acetate in solvent (85/15 acetone and alcohol or 85/15 dichlorethane and alcohol).
- (4) Formation of film in vacuo (20-30 mm. Hg.,  $20^{\circ}\text{C}.$ ).

By combining all the above treatments, it is possible to obtain unplasticised cellulose acetate films the elastic properties of which at  $-50^{\circ}\text{C}.$  are at least as good as those of the standard unfractionated film at  $+20^{\circ}\text{C}.$

*Vibration Table for Dynamic Tests in the Sonic Frequency Range.* (F. L. Meister, A.Z., Vol. 7, No. 2, March, 1942, pp. 51-56.) (122/5 Germany.)

The vibration table developed by the "Reichsanstalt" consists of a small hollow box made of light alloy clamped to the centre of a weak diaphragm. Top and bottom of the box are provided with hollow cylindrical armatures made of high tensile bronze, 10 cm. in diameter and 2 cm. long, and provided with about 10 turns of wire. These armatures project into strong ring-shaped magnetic fields ( $\sim 10,000$  gauss) produced by two separately excited electromagnets of suitable shape placed respectively above and below the box. The top armature is supplied with alternating current of accurate sine form and known frequency produced by a valve circuit operating in conjunction with an amplifier and transformer, the bottom armature being used as an indicator of the box motion (induced E.M.F. recorded on an oscillograph).

The apparatus has the following advantages:—

- (1) Very accurate sine vibrations over the frequency range 5-1,000/sec. are generated (the lower limit corresponds to the natural frequency of the box diaphragm combination).
- (2) For frequencies below 100/sec., the amplitude can be increased to the order of 1 mm.
- (3) An accurate record of the motion of the table up to the highest frequencies is readily possible.

The fact that the box container is relatively small is no disadvantage, since the modern vibration indicators and accelerometers (for which the test apparatus is mainly intended) are all of very compact design and thus easily accommodated inside the box.

Test results on two carbon pile accelerometers are given. These experiments were carried out at constant vibratory velocity but variable frequency, *i.e.*, the current fed to the forcing coil was so adjusted that the induced E.M.F. on the lower recording coil remained constant and independent of frequency. In this case the accelerometer readings should increase linearly with frequency up to a limit depending on the natural frequency of the instrument and the damping. By repeating the tests with different values for the constant vibratory velocity, the characteristic of the accelerometer as regards natural frequency and damping can be readily obtained. A special point in favour of the vibration table is the excellent cooling of the excitation coil which renders possible endurance runs under stable conditions over considerable periods of time.

*Some Notes on the Theory of the Campini System of Jet Propulsion.* (G. A. Varshovsky, J. Tech. Physics, U.S.S.R., Vol. 11, No. 12, 1941, pp. 1,123-1,127.) (122/6 U.S.S.R.)

Fundamentally, the Campini system of jet propulsion consists of the following parts:—

- (1) A diverging nozzle, facing in the direction of motion, the entering velocity being  $W_1$ , pressure  $p_1$ , temperature  $T_1$ .
- (2) After compression in this nozzle (at an adiabatic efficiency of  $\eta_a$ ) the air enters an engine-driven compressor at zero velocity, pressure  $p_2$ , where it has its pressure raised to  $p_3$ , the adiabatic compression efficiency being  $\eta_c$ .
- (3) A portion of this air is supplied to the engine, and the remainder, after picking up heat from the engine radiator (or cooling fins) and after further possible heat addition due to the combustion of fuel in an auxiliary combustion chamber, enters the discharge nozzle at a tempera-

ture  $T_4$  and a pressure  $p_3$  (any pressure drop in the flow passages being neglected).

- (4) The compressed air finally expands from  $p_3$  to atmospheric pressure  $p_1$ , attaining an exit speed of  $W_2$ .

As is well known, the thrust produced per kg. of air passing through the system  $= (W_2 - W_1)/g$  kg., and if the assembly moves in this direction through still air, the propulsive work per kg.  $= W_1 (W_2 - W_1)/g$  kgm. Dividing this by  $q$  (the total amount of heat added per kg. of air) gives the thermal efficiency  $\eta_e$  of propulsion whilst division by the kinetic energy at entry gives what the author calls the thrust coefficient  $C = 2 (W_2 - W_1)/W_1$ .

The author obtains expressions for  $\eta_e$  and  $C$  which are functions of the following quantities:—

- (1) The Mach number at entry.
- (2)  $\gamma$  and  $C_p$  of air (it is assumed that the products of combustion have the same specific heat).
- (3)  $\eta_a$  and  $\eta_c$ .
- (4)  $\eta_m$  = thermal efficiency of engine.
- (5)  $\phi$  = adiabatic efficiency of reaction nozzle.
- (6)  $\psi$  = percentage heat utilisation factor ( $1 - \psi$  = percentage heat loss of system).
- (7)  $1/n$  = percentage of total heat supplied to engine ( $1 - 1/n$  = heat supplied to auxiliary combustion chamber).
- (8)  $T_1$  = temperature at entry.
- (9) Total heat supplied  $q$ .

Keeping the factors (2) to (7) constant,  $\eta_e$  is thus a function of  $Ma$ ,  $q$  and  $T_1$  only and curves are plotted for  $\eta_e$  as a function of  $q/C_p T_1$  with  $Ma^2$  as parameter, using the following constants:—

$$\begin{aligned} \eta_a &= .96 \\ \eta_c &= .88 \\ \phi &= .98 \\ \psi &= .98 \\ \eta_m &= .29 \text{ and } .40 \text{ respectively} \\ n &= 1 \end{aligned}$$

With  $\eta_m = .29$  and a propeller efficiency of 80 per cent., a standard engine will give a thermal propulsion efficiency of about 23 per cent. The curves show that the Campini system will exceed this at  $Ma^2 = .2$  for  $q/C_p T_1$  between .1 and .2 and for  $Ma^2 = .4$ ,  $\eta_e$  will be in excess of 25 per cent. over the  $q/C_p T_1$  range .1 to .5.

For higher  $Ma$  values, the benefits of the jet system become more pronounced. When applied, however, to an engine of higher inherent thermal efficiency (e.g.,  $\eta_n = .4$ ) Mach numbers of .6 will have to be exceeded before the jet system discussed shows any marked improvement over the standard propeller. (N.B.—It is assumed that the propeller can be designed to maintain 80 per cent. efficiency throughout.)

*Experimental Layout for Recording Speed Variation in Turbulent Flow.* (G. Datwyler, Mitt. E.T.H., Zurich, No. 8, 1943, pp. 34-43.) (122/7 Switzerland.)

Airspeed measurements with a hot wire anemometer consist in recording the voltage drop across the wire for a constant heating current. On account of thermal inertia, such a wire does not respond immediately to speed fluctuations

and the record is distorted both as regards amplitude and phase. If

$a_w$  = response to a speed amplitude  $a$  at frequency  $w = 2\pi f$ .

$a_o$  = response under steady conditions  $w = 0$ ,

we have

$$\frac{a_w}{a_o} = \frac{1}{\sqrt{(1+w^2M)}} e^{-i \tan^{-1} wM} \quad (1)$$

where  $M$  = time constant of anemometer.

$$= \frac{mS(T - T_o)}{.24 I^2 R_o}$$

where  $m$  = mass of wire.

$S$  = its specific heat.

$T$  = mean temperature of wire.

$T_o$  = temperature of unheated wire.

$R_o$  = resistance of unheated wire.

$I$  = current.

$M$  thus represents the time required for the wire to reach the working temperature  $T$  with a constant heat input of  $.24 I^2 R_o$ , starting at  $T_o$ .

Equation (1) shows that under these conditions, the recorded amplitude is decreased in the ratio  $1/\sqrt{(1+w^2M^2)}$  and there is a phase lag of  $\tan^{-1} wM$  in addition.

If the instrument is therefore to be used for turbulence investigations, the electric recording circuit must be such that the amplification increases with frequency and that the phase is automatically advanced.

This is achieved in a relatively simple manner by putting into the plate circuit a resistance  $R$  in series with an inductance  $L$ . Under these conditions, the amplification  $v$  becomes

$$v = \left\{ \frac{\mu}{(1 + R_i/R)} \right\} \sqrt{ \left[ \left\{ 1 + (wL/R)^2 \right\} / \left\{ 1 + (wL)/(R_i + R)^2 \right\} \right] e^{i \tan^{-1} [(wL/R)(1 - 1/(1 + R_i/R))]} }$$

where  $R_i$  = internal resistance of valve

$\mu$  = no load amplification of valve.

This is the correct amount, provided

$$L/R = M.$$

$$R_i \gg R.$$

$\mu$  = constant over frequency range.

In practice,  $R_i$ , although large, cannot be considered as  $\infty$ . The resulting error is however very small. Thus in a particular case

$$R_i = 750,000 \Omega.$$

$$L = 3 \text{ Henry.}$$

$$M = .004 \text{ sec.}$$

$$R = 750 \Omega.$$

	$f = 10$	100	1,000	10,000
$1/\sqrt{ \left\{ 1 + (wL/R_i + R)^2 \right\} } =$	1	1	1	1.031

The amplitudes are thus reproduced up to frequencies of 10,000/sec. with an error of less than 3 per cent., whilst the phase error over the same range is negligible.

The arrangement adopted in the E.T.H. Laboratory consists of a three-stage amplifier with capacity coupling, the first and last stage acting as normal resistance amplifiers whilst the intermediate stage is provided with the inductive compensation described above, together with a five-step grid potentiometer in order to adjust the amplification to the degree of existing turbulence.



The anode circuit of the last stage is provided with a sensitive thermo ammeter, consisting of a thermocouple attached to a fine resistance. The E.M.F. generated in the couple varies as the square of the anode current and thus is a measure of the mean square speed fluctuation of the flow (independent of frequency). The actual speed fluctuations can also be recorded on an oscillograph.

As an example of the application of the apparatus, turbulence surveys in the wake of a model aerofoil of 340 mm. chord are given for various distances from the trailing edge. Defining the turbulence factor as  $\sqrt{\bar{u}^2}/U$  when  $U$  = undisturbed stream flow, the records show a maximum value of 7.8 per cent. at 30 mm. and dropping to 5 per cent. at 100 mm.

*Striation Technique Applied to the Supersonic Wind Tunnel.* (P. de Haller, Mitt. E.T.H., Zurich, No. 8, 1943, pp. 44-49.) (122/8 Switzerland.)

The great advantage of striation technique when applied to high speed flow phenomena is the fact that the field of flow can be surveyed qualitatively without creating additional disturbances due to the introduction of measuring instruments into the high speed air stream. The application of the method to supersonic wind tunnels is, however, complicated by the large field of view required (spherical aberration of optical system!) as well as by the deformation of the observation windows due to the relatively high vacuum usually existing in the tunnel. To overcome these difficulties, the whole system comprised of light source, slot, edge plate and camera is mounted on a common stand and can be orientated in any direction.

The wind tunnel measuring section is provided with two windows and carries a concave mirror of 3 m. focal length facing the rear window. The light (Phillips high pressure mercury vapour lamp) after being focussed on the slot traverses the channel section from front to rear (40 cm.) and on emergence at the back window (30 cm. diameter) is reflected by the concave mirror, thus producing an image of the slot on the edge plate. The light then passes through the camera objective and is reflected by a plane mirror on to a ground glass screen or photographic plate placed close to and slightly to one side of the camera lens. The position of the edge plate relatively to the illuminated slot can be adjusted by means of a micrometer screw, whilst their common mounting can be rotated so as to observe density gradients in different directions. The lens system, being highly achromatic, enables the use of a powerful light source without the need of a filter. The fact that the light traverses the measuring field twice increases the sensitivity of the method still further.

Although, as already stated, the striation method is intended mainly for qualitative studies of the field of flow, it is interesting to note that the apparatus enables quantitative measurements of pressure gradients of the order of 1 per cent. per cm. For this purpose, a number of subsequent exposures are taken for different positions of the edge plate, the exposure times and air pressure being the same as in the flow investigation proper, with the exception that the wind velocity is now zero. These exposures are made on a previously unexposed portion of the film. After development, the density of these exposures is compared with those of the flow pattern by means of a photometer. This enables the corresponding angles of deviation to be determined irrespective of difference in emulsion or development of film.

*The Aerodynamic Laboratory of the E.T.H., Zurich.* (J. Ackeret, Mitt. E.T.H., No. 8, 1943, pp. 5-33.) (122/9 Switzerland.)

The E.T.H. wind tunnel has a working section of  $3 \times 2.1$  m. which is adjustable, so that the tunnel walls can be made either convergent, divergent or parallel.

In this manner a constant pressure can be maintained over an appreciable length of tunnel which is very important in drag investigations on fuselage models. On the other hand, experiments on turbine blades can be carried out with a negative pressure gradient and actual working conditions thus reproduced more accurately. Finally the tunnel walls can be removed entirely and the wind tunnel operated with a free jet, but adjustable collector nozzle. This is of advantage when relatively large models have to be investigated, since in this case the velocity distribution is less interfered with (displacement flow). The adjustment of the collector nozzle proved very beneficial in reducing stagnation effects and renders the subsequent velocity conversion very efficient, the overall tunnel factor being 3.86 (referred to power supply).

The air current is supplied by two axial blowers (2.5 m. blade diameter) situated in the return circuit and operating in parallel. Each of these blowers is rated at 275 h.p. at 1,400 r.p.m. and supplies 230 m.<sup>3</sup>/sec. at a pressure difference of 80 kg./m.<sup>2</sup>. At this continuous rating, the air speed in the working section is of the order of 80 m./sec., which can be increased to 90 m./sec. for short periods (20 minutes). The D.C. motors driving the fans are under Ward-Leonard control, speed synchronisation being assured by a silk belt. Considerable trouble was at first experienced with variations in the supply frequency of the three-phase motor driving the Leonard group. The corresponding speed variations of the driving motor was finally cured by an electric valve circuit which controls the excitation of the dynamo to within very narrow limits.

In addition to this large tunnel, the laboratory also has a small high speed tunnel with a circular working section of 25 cm. diameter. This apparatus is mainly intended for the calibration of pitot tubes at speeds up to 170 m./sec.

The most interesting equipment of the E.T.H. is supersonic wind tunnel with a working section of 40 × 40 cm. By operating in a closed circuit under low pressure, a Mach number of 2 can be reached for a power consumption of less than 1,000 h.p. The tunnel is operated by a 13-stage axial compressor supplied by B.B.C. and running at a maximum speed of 3,900 r.p.m. This type of machine was chosen, since its restricted diameter (~ 120 cm.) facilitates installation. Moreover, control is facilitated, since by cutting out some of the guide wheels, the pressure ratio can be reduced from its maximum value of 2.4 without the idle stages absorbing appreciable power.

Elaborate precautions are taken to pressure seal the bearings of the compressor and prevent oil entering the air stream.

As is well known, cooling the air of a supersonic tunnel presents a major problem. A special air cooler capable of dealing with 750,000 K. cal./hour is built into the circuit preceding the working section. The cooler consists of three independent units placed one behind the other, and although offering an appreciable resistance, its presence serves to steady down the air stream.

Apart from the usual investigations on aerofoils, the tunnel has lately been used for experiments on a 300 h.p. air turbine. It appears that a reduction in the aerodynamic losses of such machines ranks at least equal with metallurgical improvements. By inserting the turbine in the supersonic wind tunnel circuit, the effect of variation of  $Re$  and  $Ma$  on performance can be readily studied. Moreover, by means of special apparatus, it is hoped to follow out the flow in the interior of the machine. According to the director of the E.T.H. such turbines are likely to become the power plant of the future and such a development by itself would more than justify the expense of the supersonic tunnel.

*Development of Stall Warning Indicators.* (J. George, 12th Annual Meeting, Inst. Aeron. Sciences, Jan., 1944.) (Preprint available.) (122/10 U.S.A.)

From statistics it appears that over 100 fatal accidents directly attributable to stalling occurred in the U.S.A. in 1941. There is thus an urgent need for a

reliable and practical device which will warn the pilot in a very positive manner of the approaching stall. Obviously, utmost reliability is essential, since, once adopted, pilots would depend on the warning and a faulty response would constitute an increased hazard. Experiment has shown that for a given aerofoil, stalling occurs at a definite angle of attack irrespective of air speed, and the problem is therefore solved if a reliable angle of attack indicator can be evolved. Two successful devices of this type have been investigated by the C.A.A. The first, known as the Gurley indicator, depends on the travel of the stagnation point at the leading edge of the wing as the incidence changes. Under normal flight conditions this point is on the upper surface of the wing, but will move round the nose on to the lower surface with increasing angle of attack (stall). A light vane projecting from the nose into the air stream will be deflected downwards if the stagnation point is above the vane. This corresponds to normal flight conditions. At minimum safe flying speed, the stagnation point has travelled below the vane and will deflect it upwards, thus closing a switch operating a klaxon or signal lamp. In practice, the position of the vane is chosen so that a warning is given at a speed of about 25 per cent. in excess of stalling speed. Templates are provided so that this position can be readily found on any given shape wing. It is stated that flight tests have proved satisfactory and the instrument, which is simple and robust, is recommended for the private owner. Only one instrument, situated midway between fuselage and wing tip need be fitted.

The second angle of attack indicator tested by the C.A.A. (Wayne University type) depends on the change in pressure distribution on the nose with change in incidence. At any angle of attack there are two points on the leading edge contour, which are at the same pressure as the interior of the wing. With increase in incidence, these points of zero pressure difference travel downwards around the nose in such a manner that the upper portion of the leading edge suffers a pressure reversal from positive to negative, whilst the reverse holds for the lower portion. A diaphragm connected to a point on the upper surface will thus undergo a change in deflection at the angle of attack corresponding to minimum safe flying speed. By utilising a slack diaphragm of rubber-like material sufficient deflection to operate an electrical contact can be obtained with a pressure difference of the order of .015 in. of water. Although slightly more complicated than the Gurley indicator, the instrument is less subject to damage since there are no projecting parts. The sensitivity is slightly greater than that of the Gurley indicator. Both the above angle of attack indicators will obviously only function in the absence of icing, since otherwise the wing contour and hence the calibration changes. Stall warning devices operating under conditions of icing are more difficult to achieve since they will have to respond to changes in the character of the flow over the whole wing surface and will necessitate simultaneous readings of pressure differentials at three or more points situated near the trailing edge. Although promising laboratory experiments have been carried out, this type of indicator still awaits flight tests under actual icing conditions. The fundamental requirement of any stall indicator (pressure differential independent of air speed and function of angle of attack only) appears to be very difficult to achieve under icing conditions, and this may delay the advent of a suitable instrument although urgently needed by civil aviation transport.

*Device for Stripping Insulation from Electric Conductors (D.R.G.M. 1,504,595). (Der Flieger, Vol. 22, No. 7, July, 1943, pp. 211-212.) (122/11 Germany.)*

The stripping of insulation by hand, using a knife, pliers, or similar tools is unsatisfactory, since it takes an appreciable time and fatigues the operator. The alternative of burning off the insulation by means of a red hot wire has also not

proved amenable to mass production conditions. For this reason the Junkers firm have developed a mechanical stripping machine, consisting of a clamping device (upper and lower straight edge) provided with a series of recesses of standard diameter corresponding to the types of cable requiring trimming. Immediately behind the clamp is situated a cutter, consisting of an upper and lower knife which surrounds the cable. The travel of the cutter is controlled by the thickness of the insulation, and after cutting through to the metal strands, the knife travels back along the cable, stripping off the insulation automatically.

## LIST OF SELECTED TRANSLATIONS.

No. 68.

NOTE.—Applications for the loan of copies of translations mentioned below should be addressed to the Secretary (R.T.P.3), Ministry of Aircraft Production, and not to the Royal Aeronautical Society. Copies will be loaned as far as availability of stocks permits. Suggestions concerning new translations will be considered in relation to general interest and facilities available.

Lists of selected translations have appeared in this publication since September, 1938.

TRANSLATION NUMBER AND AUTHOR.	TITLE AND REFERENCE.
AERO AND HYDRODYNAMICS.	
2097 Mangler, W.	... <i>Two Remarks on the Schwarz-Christoffel Transformation.</i> (Z.A.M.M., Vol. 18, No. 4, August, 1938, pp. 251-252.)
2120 Grobner, W...	... <i>On an Approximate Method for Determining the Two-Dimensional Potential Flow of a Compressible Fluid.</i> (L.F.F., Vol. 20, No. 6, 30/6/43, pp. 184-191.)
2122 Pinl, M.	... <i>The Geometrical Interpretation and Transformation of the Fundamental Equation of Two-Dimensional Compressible Potential Flow.</i> (Z.A.M.M., Vol. 21, No. 2, April, 1941, pp. 80-85.)
AIRCRAFT, AIRSCREWS AND ACCESSORIES.	
2102 Oschatz, H....	... <i>Methods for Balancing Airscrews.</i> (Luftwissen, Vol. 10, No. 3, March, 1943, pp. 69-73.)
2105 —	... <i>World's 56 Hours Gliding Record.</i> (Flugsport, Vol. 35, No. 15, 17/11/43.)
2107 Jorn, R.	... <i>Developments and Problems of the "Canard" Aircraft.</i> (Flugsport, Vol. 32, No. 26, 24/12/41, pp. 493-496.)
2108 —	... <i>Automatic Coupling for Helicopter.</i> (German Patent 731,109). (Flugsport, Vol. 35, No. 7, 31/3/43, pp. 9-10.)
ENGINES, FUELS AND ACCESSORIES.	
2093 Roth, J. F. ...	... <i>The Explosive Properties of Tetranitro-Methane Nitrobenzene Mixtures—A Contribution to the Hydrodynamic Theory of Detonation.</i> (Z.G.S.S., Vol. 36, Nos. 1-3, Jan.-March, 1941, pp. 4-6, 28-30, 52-55.)
2103 Robotti, A. C.	... <i>Prospects of the Modern Engine in Military Aviation.</i> (Revista Aeronautica, Vol. 17, No. 11, November, 1941, pp. 307-328.)

TRANSLATION NUMBER AND AUTHOR.		TITLE AND REFERENCE.
2106	Engel ... ..	<i>Remote Transmission and Recording of Torque R.P.M. and Performance Measurements Made with an Electric Torque Balance.</i> (A.T.Z., Vol. 45, No. 7, 1942, pp. 191-192.)
2110	Englische, E. ... ..	<i>Lubrication Phenomena Between Piston, Rings and Cylinders.</i> (Z.V.D.I., Vol. 86, Nos. 7-8, Feb., 1942, p. 116.)
2112	Meyer, J. ... ..	<i>The Question of the Effective Torsional Rigidity in the Torsional Vibration of Crankshafts.</i> (L.F.F., Vol. 7, No. 2, 20/2/40, pp. 54-55.)

## WIRELESS AND ELECTRICITY.

2094	Grosskopf, J. Vogt, K. ... ..	<i>Measurement of Ground Conductivity.</i> (T.F.T., Vol. 29, No. 6, 1940, pp. 164-172.)
2098	Forster, F. ... .. Stambke, K.	<i>Magnetic Investigation of Internal Stresses in Die-Stretched Nickel Wire.</i> (Z.f. Metallkunde, Vol. 33, No. 3, March, 1941, pp. 97-104.)
2099	Forster, F. ... .. Stambke, K.	<i>Magnetic Investigation of Internal Stresses in Die-Drawn Nickel Wires.</i> (Z.f. Metallkunde, Vol. 33, No. 3, March, 1941, pp. 104-114.)
2101	Tommasi, A. ... ..	<i>Concerning the Measurement of Small Time Intervals.</i> (Alta Frequenza, Vol. 10, No. 6, June, 1941, p. 358.)
2104	Zeitlenok, G. A. Ivanov, A. B. ... ..	<i>An Investigation of Certain Types of Parasitic Oscillations in Radio Transmitters.</i> (Communications Engineering Trades Review, U.S.S.R., No. 7, 1940, pp. 13-28.)
2109	Toniolo-Ferraria ... ..	<i>Direct-Reading Meter for Small Time Intervals.</i> (Alta Frequenza, Vol. 10, No. 3, March, 1941, pp. 179-181.)

## MATERIALS AND ELASTICITY.

2121	Rosovin, Z. ... .. Ivanova, Z.	<i>Investigations on the Structure and Properties of Cellulose and its Ethers.</i> (J. App. Chem., U.S.S.R., Vol. 14, No. 6, 1941, pp. 834-842.)
2125	Soph, G. ... .. Frey, W.	<i>Determination of the Number of Passes in Drawing (Nomogram for Finding the Number of Passes for a Given Diameter Ratio).</i> (Luftwissen, Vol. 16, No. 2, Feb., 1943, p. 43.)
2127	Hencky, H.... ... ..	<i>On the Nature of Plastic Deformation.</i> (Z.V.D.I., Vol. 69, No. 20, 16/5/25, pp. 695-696, and No. 39, 26/9/25, pp. 1253-1254.)

TITLES AND REFERENCES OF ARTICLES AND PAPERS SELECTED  
FROM PUBLICATIONS REVIEWED IN R.T.P.3.

Requests for further information or translations should be addressed to  
R.T.P.3, Ministry of Aircraft Production, giving item and reference numbers.

Index.	Items.
I. Theory and Practice of Warfare ... ..	1-192
II. Aerodynamics and Hydrodynamics ... ..	193-206
III. Aircraft and Accessories... ..	207-324
IV. Engines and Accessories... ..	325-399
V. Fuels and Lubricants ... ..	400-439
VI. Theory of Elasticity ... ..	440-460
VII. Materials ... ..	461-682
VIII. Instruments ... ..	683-707
IX. Production ... ..	708-844
X. Transport ... ..	845-868
XI. Wireless and Electricity ... ..	869-904
XII. Sound, Light and Heat ... ..	905-921
XIII. Photography ... ..	922-927
XIV. Meteorology ... ..	928-933
XV. Physiology and Aviation Medicine ... ..	934-975
XVI. Mathematics ... ..	976-982

**THEORY AND PRACTICE OF WARFARE.**

**Strategy and Tactics.**

ITEM NO.	R. T. P REF.	TITLE AND JOURNAL.
1	18706 Switzerland ...	<i>The Effect of Three-Dimensional War.</i> (G. Daniker, Flugwehr und Technik, Vol. 5, No. 1, Jan., 1943, pp. 8-10.)
2	18707 Switzerland ...	<i>Modern Technical and Tactical Means in Air/Sea Warfare.</i> (T. Weber, Flugwehr und Technik, Vol. 5, No. 1, Jan., 1943, pp. 10-14.)
3	18729 Switzerland ...	<i>The Psychology of Aerial Combat.</i> (W. Guldimann, Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, pp. 285-288.)
4	19017 U.S.A. ...	<i>Half a Million Planes on Active Service Expected in this Country by 1950 (Excerpts from Address).</i> (C. J. Stanton, U.S. Air Services, Vol. 28, No. 9, Sept., 1943, pp. 16-17.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
5	19147 G.B. ...	<i>The Allied Air Pioneers (New Strategical Possibilities with the Advance of the Allies into Southern Italy)</i> . (H. J. A. Wilson, <i>Aeronautics</i> , Vol. 9, No. 4, November, 1943, pp. 28-31.)
6	19150 G.B. ...	<i>Swedish View on the Destructive Power of British Bombs</i> . ( <i>Aeronautics</i> , Vol. 9, No. 4, Nov., 1943, p. 38.)
7	19157 G.B. ...	<i>Allied Convoy Tactics (Spanish Version)</i> . ( <i>Aeronautics</i> , Vol. 9, November, 1943, p. 57.)
8	19170 G.B. ...	<i>Powers of Manœuvre</i> . (F. H. M. Lloyd, <i>Aeronautics</i> , Vol. 9, No. 3, October, 1943, pp. 28-33.)
9	19179 G.B. ...	<i>Pattern for Peace (Account of German Evasion of Versailles Treaty and Secret Building of Aircraft by Junkers, etc.)</i> . (H. J. A. Wilson, <i>Aeronautics</i> , Vol. 9, No. 3, October, 1943, pp. 44-49.)
10	19180 G.B. ...	<i>The Attack on German Steel (R.A.F. Bombing Offensive and the Organisation of the German Steel Industry)</i> . (H. J. A. Wilson, <i>Aeronautics</i> , Vol. 9, No. 1, August, 1943, pp. 28-31.)
11	19182 France	<i>Anti-Tank Aircraft</i> . (M. C. Rougeron, <i>Aeronautics</i> , Vol. 9, No. 1, August, 1943, p. 33.)
12	19195 G.B. ...	<i>Air Power versus Japan</i> . (K. Macmillan, <i>Aeronautics</i> , Vol. 9, No. 5, Dec., 1943, pp. 28-33.)
13	19250 G.B. ...	<i>Electrical Damage to Berlin</i> . ( <i>Electrical Times</i> , Vol. 105, No. 2,726, 20/1/44, p. 71.)
14	19294 G.B. ...	<i>A Numerical Theory of Air Tactics</i> . ( <i>Aeronautics</i> , Vol. 9, No. 6, January, 1944, pp. 28-31.)
15	19298 G.B. ...	<i>Airborne War and the Rôle of Airborne Forces</i> . ( <i>Aeronautics</i> , Vol. 9, No. 6, Jan., 1944, pp. 42-43.)
16	19366 G.B. ...	<i>Air Observation Post (Rôle of Auster Aircraft in Directing Artillery Fire)</i> . ( <i>Flight</i> , Vol. 45, No. 1,832, 3/2/44, pp. 122-124.)
17	19367 G.B. ...	<i>Heavy Bombers and Pathfinders</i> . (N. A. de V. Robertson, <i>Flight</i> , Vol. 45, No. 1,832, 3/2/44, pp. 124-125.)
18	19481 G.B. ...	<i>Sound Speed—Ground Speed (Use of Sound Echo for Ascertaining Ground Speed)</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,706, 4/2/44, p. 122.)
19	19615 Canada	<i>Jet Propulsion Seen as a Factor to Influence Air Combat—No. 11</i> . (P. James, <i>Canadian Aviation</i> , Vol. 16, Nov., 1943, pp. 57-58.)
20	19638 U.S.A.	<i>Line Identification Chart for Showing Markings of American and British Aircraft Lines</i> . ( <i>Aviation Maintenance</i> , Vol. 1, No. 1, December, 1943, pp. 83-86.)
21	19747 Germany	<i>German Crewless Radio - Controlled Bomber</i> . ( <i>Flight</i> , Vol. 45, No. 1,833, 10/2/44, pp. 145-146.)



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Training and Organisation.</b>		
22	18687	Switzerland ... <i>The Military Importance of Transport Aircraft.</i> (Flugwehr und Technik, Vol. 5, No. 8, Aug., 1943, p. 205.)
23	18730	Switzerland ... <i>Training of German Parachute Troops.</i> (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, pp. 288-289.)
24	18739	U.S.A. ... <i>Flight Training Device "Aerostructor."</i> (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, p. 302.)
25	19022	Canada ... <i>A Critical Analysis of Accidents in Flying Training in the R.C.A.F.</i> (A. Roy Brown, Canadian Aviation, Vol. 16, No. 7, July, 1943, pp. 37-39, 96.)
26	19043	Canada ... <i>Training of Ground Crews (St. Thomas School).</i> (R. A. Keith, Canadian Aviation, Vol. 16, No. 8, Aug., 1943, pp. 75-80, 150.)
27	19052	Canada ... <i>Polaroid Provides Blind Flying Aid (a New Method of Teaching and Practising Blind Flying in Daylight).</i> (Canadian Aviation, Vol. 16, No. 8, Aug., 1943, p. 164.)
28	19055	Canada ... <i>Airborne Troops Trained in Canada.</i> (Canadian Aviation, Vol. 16, No. 9, Sept., 1943, pp. 45-48, 78.)
29	19059	Canada ... <i>Split Second Aircraft Recognition (New Instruction Technique).</i> (Canadian Aviation, Vol. 16, No. 9, Sept., 1943, pp. 64, 79.)
30	19060	Canada ... <i>Development of the R.C.A.F.</i> (S. P. Cromie, Canadian Aviation, Vol. 16, No. 9, Sept., 1943, p. 68.)
31	19184	G.B. ... <i>Gunnery Training for Air Crews (Photos).</i> (Aeronautics, Vol. 9, No. 1, August, 1943, pp. 42-43.)
32	19192	G.B. ... <i>An Elaborated "Link" Type Trainer (for Simulating Actual Flying Conditions) (Patent).</i> (Aeronautics, Vol. 9, No. 1, August, 1943, p. 61.)
33	19199	G.B. ... <i>Basic Procedure for Air Pilots. (Minimum Information any Pilot must have to Fly any Aeroplane).</i> (R. G. Worcester, Aeronautics, Vol. 9, No. 5, Dec., 1943, pp. 48-50.)
34	19300	G.B. ... <i>The Air Training Corps (A.T.C.).</i> (Air Commodore Chamier, Aeronautics, Vol. 9, No. 6, Jan., 1944, pp. 46-48.)
35	19369	G.B. ... <i>Training the Air Bomber (the Air Armament School).</i> (Flight, Vol. 45, No. 1,832, 3/2/44, pp. 128-129.)
36	19374	G.B. ... <i>Commonwealth Air Transport Policy.</i> (Aeroplane, Vol. 66, No. 1,705, 28/1/44, p. 94.)
37	19507	U.S.A. ... <i>Canada's Training Schools (Combined Training Organisation).</i> (J. R. Keith, Aviation, Vol. 42, No. 11, November, 1943, pp. 219-221, 278-281.)
38	19508	U.S.A. ... <i>Piloting Big Bombers (Building the A.A.F.—Pt. IV).</i> (Aviation, Vol. 42, No. 11, November, 1943, pp. 223-225.)
39	19927	G.B. ... <i>New U.S. Official Designations for Transports.</i> (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, p. 182.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
40	19928 G.B. ...	... <i>B.O.A.C. Returns to Divisional Organisation.</i> (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, p. 183.)
41	19992 U.S.A. ...	... <i>The Army Air Forces (General Arnold's Report).</i> (E. Bramley, American Aviation, Vol. 7, No. 16, 15/1/44, pp. 17, 21-22.)
42	19993 U.S.A. ...	... <i>U.S. Air Forces—Locations and Air Transport Command Routes (M.A.P.).</i> (American Aviation, Vol. 7, No. 16, 15/1/44, p. 17.)
<b>Design and Equipment of Military Aircraft.</b>		
43	18514 G.B. ...	... <i>Quick Release Fasteners on German Aircraft.</i> (M.A.P. Reports on Enemy Aircraft, November, 1943, pp. 1-3.)
44	18515 G.B. ...	... <i>German Cowlings.</i> (M.A.P. Reports on Enemy Aircraft, November, 1943, pp. 1-4.)
45	18546 G.B. ...	... <i>New "Exposure Suit" for Ditched Airmen.</i> (Flight, Vol. 45, No. 1,829, 13/1/44, p. 36.)
46	18616 U.S.A. ...	... <i>Italian Captured Material (Artillery and Tanks) (Photos).</i> (Coast Artillery Journal, Vol. 86, No. 4, July-August, 1943, pp. 34-35.)
47	18718 Sweden ...	... <i>New Aircraft Materials (Combined Wood and Steel).</i> (Flugwehr und Technik, Vol. 5, No. 7, July, 1943, p. 194.)
48	18719 U.S.A. ...	... <i>Vultee Stall Indicator.</i> (Flugwehr und Technik, Vol. 5, No. 7, July, 1943, p. 194.)
49	18720 U.S.A. ...	... <i>Goodrich Anti-Skid Tyre (Wired Cover).</i> (Flugwehr und Technik, Vol. 5, No. 7, July, 1943, p. 194.)
50	18727 U.S.A. ...	... <i>Koppen "Skyfarer" Simplified Control, No Rudder, Will Not Spin.</i> (Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, p. 329.)
51	18824 G.B. ...	... <i>British Reports on German Aeroplanes. IX—German Cowlings.</i> (Aircraft Engineering, Vol. 16, No. 179, January, 1944, pp. 2-6.)
52	18825 G.B. ...	... <i>British Reports on German Aeroplanes. X—German Quick-Release Fasteners.</i> (Aircraft Engineering, Vol. 16, No. 179, January, 1944, pp. 6-10.)
53	18908 U.S.A. ...	... <i>Conversion of P-39 Airacobra into a Trainer.</i> (Aero Digest, Vol. 43, No. 5, November, 1943, p. 228.)
54	18911 U.S.A. ...	... <i>The Electrical System of the Lockheed Lightning P-38.</i> (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 244-247.)
55	18918 U.S.A. ...	... <i>The Liberator's New Thermal Anti-Icer (Detail Drawing).</i> (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 270-271.)
56	18920 Canada ...	... <i>The Cornelius (Modified Flying Wing Type of Aeroplane with Sharp Forward Sweep of Wings, including Model of Flying Automobile).</i> (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 275-278.)
57	18921 U.S.A. ...	... <i>Republic P-47 Thunderbolt Landing Gear (Detail Drawing).</i> (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 282-283.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
58	19053 Canada	... <i>Crepe Paper as an Emergency Parachute.</i> (Canadian Aviation, Vol. 16, No. 8, August, 1943, p. 164.)
59	19054 Canada	... <i>Interchangeability—A Feature of Lancaster Design.</i> (W. Symmons, Canadian Aviation, Vol. 16, No. 8, August, 1943, pp. 66-68, 120.)
60	19061 Canada	... <i>New All Wooden Fuselage for the Canadian Anson.</i> (A. E. Salter, Canadian Aviation, Vol. 16, No. 9, Sept., 1943, pp. 81-92.)
61	19089 U.S.A.	... <i>Fully Equipped Pararraft (Photo).</i> (Industrial and Engineering Chemistry (News Ed.), Vol. 21, No. 22, 25/11/43, p. 1950.)
62	19154 G.B. ...	... <i>Bomber Refinements (Modifications to Meet New Tactical Requirements).</i> (Aeronautics, Vol. 9, No. 4, November, 1943, pp. 50-51.)
63	19183 G.B. ...	... <i>Fighter Size and Performance.</i> (J. L. Beilschmidt, Aeronautics, Vol. 9, No. 1, August, 1943, pp. 34-41.)
64	19191 G.B. ...	... <i>Equipment for Recovering Fighters Catapulted from Merchant Vessels (Fairey Patent).</i> (Aeronautics, Vol. 9, No. 1, August, 1943, pp. 60-61.)
65	19606 U.S.A.	... <i>Sea Water De-Salter (Kit Weighs 3½ lbs.).</i> (American Aviation, Vol. 7, No. 14, 15/12/43, p. 19.)
66	19864 Germany	... <i>Peaceful Weapons Utilised on Aircraft.</i> (Luftwelt, Vol. 10, No. 22, 15/11/43, pp. 430-442.)
67	19991 G.B. ...	... <i>Structural Features of German Aircraft.</i> (D. M. A. Leggett and J. H. H. Davison, Preprint of Paper Presented at the Royal Aeronautical Society, 24/2/44, pp. 1-30.)
<b>Armament of Military Aircraft.</b>		
68	18511 U.S.A.	... <i>Spinning High Explosive Bomb Casings.</i> (Iron Age, Vol. 151, No. 24, 17/6/43, p. 71.)
69	18513 U.S.A.	... <i>Pocket-Size Machine Gun (M-3 Sub-Machine Gun) (Photo).</i> (Iron Age, Vol. 151, No. 24, 17/6/43, p. 86.)
70	18638 G.B. ...	... <i>Guns of 1943.</i> (Engineer, Vol. 177, No. 4, 592, 14/1/44, pp. 37-38.)
71	18640 Germany	... <i>Rockets.</i> (Flugsport, Vol. 35, No. 16, 15/12/43, pp. 241-242.)
72	18659 Germany	... <i>Munition Supply for Wing Guns (739,468).</i> (Heinkel, Flugsport, Vol. 35, No. 16, 15/12/43, p. 76.)
73	18692 Switzerland	... <i>German Aircraft Machine Gun M.G. 131 (Article in French).</i> (Flugwehr und Technik, Vol. 5, No. 3, March, 1943, p. 68.)
74	18705 Switzerland	... <i>British Time Bombs Fitted with Specially Sensitive Fuses (Renders Disposal Difficult).</i> (Flugwehr und Technik, Vol. 5, No. 3, March, 1943, p. 82.)
75	18721 Switzerland	... <i>Improving the Piton-Bressant Trajectory Calculation (Conclusion).</i> (H. Brandli, Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, pp. 313-316 contd.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
76	18731	Switzerland ... <i>Some Notes on Improving the Piton-Bressant Method of Trajectory Calculation (Ext. Ballistics)</i> . (H. Brandli, <i>Flugwehr und Technik</i> , Vol. 4, No. 11, Nov., 1942, pp. 289-293.)
77	18741	U.S.A. ... <i>The Mustangs Plastic Bomb Rack</i> . (K. West, <i>Modern Plastics</i> , Vol. 21, No. 3, November, 1943, pp. 75-77, 170.)
78	18856	G.B. ... <i>Glider Bomb—1917</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,704, 21/1/44, p. 59.)
79	19025	Canada ... <i>Aircraft Machine Gun Turrets (Boulton Paul)</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 7, July, 1943, pp. 46-48, 68-69.)
80	19048	Canada ... <i>Cushion for Gun Power (Bell Machine Gun Adaptor)</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 8, August, 1943, p. 112.)
81	19297	G.B. ... <i>Radio Controlled Rockets</i> . (G. W. Walton, <i>Aeronautics</i> , Vol. 9, No. 6, Jan., 1944, pp. 36-39.)
82	19380	Russia ... <i>The Armament of the Tupolev TB-7 (Photo)</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,705, 28/1/44, p. 92.)
83	19495	G.B. ... <i>The Bomb-Aimer</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,706, 4/2/44, p. 129.)
84	19605	U.S.A. ... <i>B-25 Fitted with a 75 mm. Cannon</i> . ( <i>American Aviation</i> , Vol. 7, No. 14, 15/12/43, p. 16.)
85	19625	U.S.A. ... <i>Flying Gun Platforms (New Turret Armament)</i> . ( <i>Pegasus</i> , Vol. 2, No. 6, December, 1943, pp. 1-4.)
86	19806	U.S.A. ... <i>The New 75 mm. Aircraft Cannon</i> . ( <i>Army Ordnance</i> , Vol. 26, No. 142, Jan.-Feb., 1944, p. 102.)
87	19810	U.S.A. ... <i>Stratosphere Range to Test Large Calibre Aircraft Cannon</i> . ( <i>Army Ordnance</i> , Vol. 26, No. 142, Jan.-Feb., 1944, p. 125.)
88	19870	Germany ... <i>Bomb Release Gear for Series Dropping (738,759, 739,787)</i> . (Henschel, <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, pp. 85-86.)
89	19871	Germany ... <i>Electrical Circuit for Operating Bomb Release Gear in Succession (739,541)</i> . (Hakenfelde, <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 85.)

#### Military Types of Aircraft (G.B.).

90	18547	G.B. ... <i>Jet Propelled Aircraft—Great British Achievement</i> . ( <i>Flight</i> , Vol. 45, No. 1,829, 13/1/44, pp. 27-28, 37-40.)
91	18701	G.B. ... <i>Armstrong Whitworth Albermarle I and II (Use of Wood and Steel)</i> . (M.A.P. Official Release, 27/1/44, pp. 1-8.)
92	18702	G.B. ... <i>Fairey Fulmar Two-Seat Fighter</i> . ( <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, p. 81.)
93	18703	G.B. ... <i>D.H. 98 Mosquito</i> . ( <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, pp. 81-82.)
94	18734	G.B. ... <i>The Avro Lancaster</i> . ( <i>Flugwehr und Technik</i> , Vol. 4, No. 11, Nov., 1942, p. 297.)
95	18735	G.B. ... <i>Handley Page Halifax</i> . ( <i>Flugwehr und Technik</i> , Vol. 4, No. 11, Nov., 1942, p. 298.)
96	18863	G.B. ... <i>The Miles M. 28 for Air-Taxi Service (Photo)</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,704, 21/1/44, p. 76.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
97	18956 G.B. ...	<i>The Hawker Typhoon (Mark 1A and 1B)</i> . (G. M. Poulsen, Flight, Vol. 45, No. 1,830, 20/1/43, p. 61.)
98	18958 G.B. ... U.S.A.	<i>Aircraft in Flying Attitudes (Beaufighter, Douglas, P. 70)</i> . (Flight, Vol. 45, No. 1,830, 20/1/43, p. b.)
99	19149 G.B. ...	<i>The Typhoon and Hurricane II.D (Photos)</i> . (Aeronautics, Vol. 9, No. 4, Nov., 1943, pp. 34-37.)
100	19378 G.B. ...	<i>The Fairey Albacore and Swordfish (Recognition Details)</i> . (Aeroplane, Vol. 66, No. 1,705, 28/1/44, p. 103.)
101	19381 G.B. ...	<i>The Armstrong-Whitworth Albemarle Now Used as a Glider Tug (Tricycle Undercarriage)</i> . (Flight, Vol. 45, No. 1,831, 27/1/44, pp. 82, 87-91.)
102	19383 G.B. ... Germany	<i>Aircraft in Flying Attitudes (Typhoon 1B, Lightning, Hurricane IID, Henschel HS 129)</i> . (Flight, Vol. 45, No. 1,831, 27/1/44, pp. 92-93.)
103	19509 G.B. ...	<i>Avro Anson V Redesigned as Trainer for the R.A.F. and R.C.A.F.</i> (Aviation, Vol. 42, No. 11, Nov., 1944, p. 226.)
104	19619 Canada	<i>The Cornelius Flying Wing, No. 11</i> . (Canadian Aviation, Vol. 16, Nov., 1943, p. 82.)
105	19749 G.B. ...	<i>Aircraft in Flying Attitudes (Lancaster II, Flying Fortress II, Liberator IV, Stirling)</i> . (Flight, Vol. 45, No. 1,833, 10/2/44, pp. 150-151.)
106	19772 G.B. ...	<i>The Hawker Typhoon (Construction Details)</i> . (Aeroplane, Vol. 66, No. 1,707, 11/2/44, pp. 153-161.)
107	19924 Australia	<i>The Australian Boomerang</i> . (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, p. 176.)
<b>Military Types of Aircraft (U.S.A.).</b>		
108	18543 U.S.A.	<i>Latest Version of the Mustang (P-51B)</i> . (Flight, Vol. 45, No. 1,829, 13/1/44, p. 32.)
109	18549 U.S.A.	<i>Airacobra and Thunderbolt (Recognition Details)</i> . (Flight, Vol. 45, No. 1,829, 13/1/44, pp. 42-43.)
110	18591 U.S.A.	<i>The Douglas Nighthawk (Recognition Details)</i> . (Aeroplane, Vol. 66, No. 1,703, 14/1/44, p. 47.)
111	18648 U.S.A.	<i>Martin Flying Boat XPB 2M-1 "Mars" (Photograph)</i> . (Flugsport, Vol. 35, No. 16, 15/12/43, p. 251.)
112	18709 U.S.A.	<i>Martin 187 Baltimore</i> . (Flugwehr und Technik, Vol. 5, No. 1, Jan., 1943, pp. 23-28.)
113	18724 U.S.A.	<i>Martin B-26 "Marauder"</i> . (Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, p. 328.)
114	18736 U.S.A.	<i>Republic P47 Thunderbolt</i> . (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, p. 299.)
115	18857 U.S.A.	<i>North American P-51B Mustang Fitted with Long Range Fuel Tanks</i> . (Aeroplane, Vol. 66, No. 1,704, 21/1/44, pp. 60, 63.)
116	18861 U.S.A.	<i>The Grumman Avenger (Photographs)</i> . (Aeroplane, Vol. 66, No. 1,704, 21/1/44, pp. 70-71.)
117	19171 U.S.A.	<i>North American B.25 (Mitchell) (Photos)</i> . (Aeronautics, Vol. 9, No. 3, October, 1943, pp. 34-37.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
118	19364 U.S.A. G.B.	... <i>Aircraft in Flying Attitudes (Mitchell, Wellington III, Marauder and Do. 217E)</i> . (Flight, Vol. 45, No. 1,832, 3/2/44, p. a-b.)
119	19382 U.S.A.	... <i>Long Range Mustang</i> . (Flight, Vol. 45, No. 1,831, 27/1/44, p. 91.)
120	19914 U.S.A.	... <i>Improved Long Range P-38 Lockheed Lightning Fighter</i> . (Flight, Vol. 45, No. 1,834, 17/2/44, p. 170.)
121	19918 U.S.A.	... <i>Aircraft in Flying Attitudes (Helldiver, Vengeance, Corsair, Dauntless)</i> . (Flight, Vol. 45, No. 1,834, 17/2/44, pp. a-b.)
122	19994 U.S.A.	... <i>Jet Propulsion Fighter Plane (Official Release)</i> . (American Aviation, Vol. 7, No. 16, 15/1/44, p. 19.)

#### Military Types of Aircraft (U.S.S.R.).

123	18860 U.S.S.R.	... <i>Aeroplanes of the Red Air Forces—IV (Silhouettes)</i> . (Aeroplane, Vol. 66, No. 1,704, 21/1/44, p. 67.)
124	19309 U.S.S.R.	... <i>Russian Dive Bomber—Petlyakov II (Photo)</i> . (Aeronautics, Vol. 9, No. 6, Jan., 1944, p. 71.)
125	19494 U.S.S.R.	... <i>Aeroplanes of the Red Air Forces—V</i> . (Aeroplane, Vol. 66, No. 1,706, 4/2/44, p. 128.)
126	19745 U.S.S.R.	... <i>A Russian Dive Bomber PE-2</i> . (Flight, Vol. 45, No. 1,833, 10/2/44, pp. 142-144.)
127	19929 U.S.S.R.	... <i>Aeroplanes of the Red Air Forces—VI</i> . (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, p. 184.)

#### Military Types of Aircraft (Germany).

128	18550 Germany	... <i>Me. 109G and F.W. 190A-4 (Recognition Details)</i> . (Flight, Vol. 45, No. 1,829, 13/1/44, pp. 42-43.)
129	18643 Germany	... <i>Bucker Primary Trainer Bu 182 "Kornett"</i> . (Flugsport, Vol. 35, No. 16, 15/12/43, pp. 243-245.)
130	18644 Germany	... <i>Gotha GO. 146 Twin-Engine Light Transport</i> . (Flugsport, Vol. 35, No. 16, 15/12/43, pp. 245-247.)
131	18645 Germany	... <i>Messerschmitt Me. 323 Large Transport "Gigant"</i> . (Flugsport, Vol. 35, No. 16, 15/12/43, pp. 247-248.)
132	18725 Germany	... <i>Messerschmitt Me. 210</i> . (Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, p. 328.)
133	18726 Germany	... <i>Henschel Hs. 129</i> . (Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, p. 329.)
134	18737 Germany	... <i>Focke Wulf F.W. 190</i> . (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, pp. 299-300.)
135	18957 Germany	... <i>Aircraft in Flying Attitudes (Ju. 288, Me. 210)</i> . (Flight, Vol. 45, No. 1,830, 20/1/43, p. a.)
136	19372 Germany	... <i>Captured Fieseler Storch Observation Aircraft (Photo)</i> . (Flight, Vol. 45, No. 1,832, 3/2/44, p. 112.)
137	19773 Germany	... <i>Me. 110 (Recognition Details)</i> . (Aeroplane, Vol. 66, No. 1,707, 11/2/44, pp. 162-163.)
138	19774 Germany	... <i>Me. 210 (Recognition Details)</i> . (Aeroplane, Vol. 66, No. 1,707, 11/2/44, pp. 162-163.)
139	19896 Germany	... <i>Six-Engine Transport Me. 323 "Gigant"</i> . (Flugsport, Vol. 35, No. 15, 17/11/43, pp. 224-225.)

- | ITEM<br>NO.                                  | R.T.P.<br>REF.        | TITLE AND JOURNAL.  |
|--|-----------------------|---|
| 140  | 19922 Germany ...     | <i>The Messerschmitt Me. 323 (Various Versions).</i> (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, pp. 175, 180.)  |
| <b>Military Types of Aircraft (Italy).</b>   |                       |   |
| 141  | 18539 Italy ...       | <i>Caproni-Campini C.C. 2 Jet Propelled Aeroplane (Photo).</i> (Aeroplane, Vol. 66, No. 1,703, 14/1/44, p. 33.)   |
| 142  | 18710 Italy ...       | <i>Caproni Ca. 313 Light Bomber.</i> (Flugwehr und Technik, Vol. 5, No. 1, Jan., 1943, p. 28.)  |
| 143  | 19746 Italy ...       | <i>Piaggio 108 (Four-Engined Bomber) PE-2.</i> (Flight, Vol. 45, No. 1,833, 10/2/44, p. 144.)   |
| <b>Military Types of Aircraft (Japan).</b>   |                       |   |
| 144  | 19296 Japan ...       | <i>Two Japanese Aircraft (Mitsubishi 01 and S-003).</i> (Aeronautics, Vol. 9, No. 6, Jan., 1944, p. 33.)  |
| <b>Military Types of Aircraft (Rumania).</b> |                       |   |
| 145  | 18963 Rumania ...     | <i>IAR. 80—Rumanian Single-Seater Fighter.</i> (Flight, Vol. 45, No. 1,830, 20/1/43, p. 72.)  |
| <b>Giders and Gliding.</b>                   |                       |   |
| 146  | 18641 Germany ...     | <i>Cargo Sail Plane DFS. 230 A1.</i> (Flugsport, Vol. 35, No. 16, 15/12/43, p. 242.)  |
| 147  | 18642 Germany ...     | <i>Cargo Sail Plane Gotha Go. 242.</i> (Flugsport, Vol. 35, No. 16, 15/12/43, pp. 242-243.)   |
| 148  | 18647 Germany ...     | <i>Automatic Release Gear for Glider Launching Rope (Winch Starts).</i> (Flugsport, Vol. 35, No. 16, 15/12/43, p. 251.)   |
| 149  | 18649 Germany ...     | <i>Standard Specification Sheets for Sail Plane Components: No. 17, Winged Inspection Cover Plate; No. 18, Weak Link; No. 19, Anchoring Hook; No. 20, Tow Rope.</i> (Flugsport, Vol. 35, No. 16, 15/12/43, p. 252.) |
| 150  | 18712 Switzerland ... | <i>Gliders as a War Weapon.</i> (A. Baltensweiler, Flugwehr und Technik, Vol. 5, No. 7, July, 1943, pp. 180-182.)   |
| 151  | 19045 Canada ...      | <i>Gliding to Victory.</i> (K. Edgar, Canadian Aviation, Vol. 16, No. 8, Aug., 1943, pp. 90-92.)  |
| 152  | 19308 G.B. ...        | <i>Motor-Assisted Gliders.</i> (Aeronautics, Vol. 9, No. 6, Jan., 1944, p. 66.)   |
| 153  | 19371 U.S.A. ...      | <i>New American YCG-13 Glider (Photo).</i> (Flight, Vol. 45, No. 1,832, 3/2/44, p. 132.)  |
| 154  | 19867 Germany ...     | <i>Sailing Flight as the Basis of Pre-Military Training for the German Air Forces.</i> (Luftwelt, Vol. 10, No. 22, 15/11/43, pp. 444-445.)  |
| 155  | 19895 Germany ...     | <i>Transport Gliders (D.F.S. Go. 242).</i> (Flugsport, Vol. 35, No. 15, 17/11/43, pp. 221-224.)   |
| 156  | 19899 Germany ...     | <i>World's 56 Hours' Gliding Record—Pilot's Report.</i> (Flugsport, Vol. 35, No. 15, 17/11/43, pp. 234-240.) (Translation available.)   |
| <b>Fleet Air Arm, Balloons.</b>              |                       |   |
| 157  | 18635 G.B. ...        | <i>Naval Construction in 1943—No. 2.</i> (F. McMurtrie, Engineer, Vol. 177, No. 4,592, 14/1/44, pp. 29-31.)   |

- | ITEM NO.               | R.T.P. REF.           | TITLE AND JOURNAL.   |
|------------------------|-----------------------|--|
| 158                    | 18639 G.B. ...        | <i>Battleships and Carriers.</i> (E. A. Lloyd, Engineer, Vol. 177, No. 4, 592, 14/1/44, pp. 33-34.)  |
| 159                    | 18716 Switzerland ... | <i>Incendiary Balloons Found in Switzerland (Instructions for Handling).</i> (Flugwehr und Technik, Vol. 5, No. 7, July, 1943, p. 187.)  |
| 160                    | 18841 U.S.A. ...      | <i>Barrage Balloons—Use of Plastic Materials (Gas Release Valve Parts).</i> (Modern Plastics, Vol. 21, No. 2, October, 1943, pp. 69-71.)   |
| 161                    | 19021 U.S.A. ...      | <i>Navy Freight on Wings (Account of the Naval Air Transport Service—N.A.T.S.).</i> (J. B. Goodman, U.S. Air Services, Vol. 28, No. 8, Aug., 1943, pp. 14-15, 42.)                                       |
| 162                    | 19155 G.B. ...        | <i>Midget Shipborne Fighters.</i> (Aeronautics, Vol. 9, No. 4, November, 1943, p. 53.)   |
| 163                    | 19362 G.B. ...        | <i>Backbone of the Fleet—Value of the Carrier and Torpedo-Fighter.</i> (B. J. Rurren, Flight, Vol. 45, No. 1, 832, 3/2/44, pp. 115-119.)   |
| 164                    | 19493 G.B. ...        | <i>The Escort Carrier (Photos).</i> (Aeroplane, Vol. 66, No. 1, 706, 4/2/44, pp. 126-127.)   |
| <b>Maintenance.</b>    |                       |  |
| 165                    | 18593 G.B. ...        | <i>Aircraft Maintenance in Wartime.</i> (Aeroplane, Vol. 66, No. 1, 703, 14/1/44, pp. 44-45.)  |
| 166                    | 18914 U.S.A. ...      | <i>Maintenance and Repair of Metal Aircraft.</i> (J. Lux, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 254-258, 451.)  |
| 167                    | 19020 U.S.A. ...      | <i>The Importance of Parachute Maintenance.</i> (J. Floyd Smith, U.S. Air Services, Vol. 28, No. 8, Aug., 1943, pp. 30-34.)  |
| 168                    | 19375 G.B. ...        | <i>Maintenance Command of the R.A.F.</i> (Aeroplane, Vol. 66, No. 1, 705, 28/1/44, pp. 95-97.)   |
| 169                    | 19506 U.S.A. ...      | <i>Maintenance Equipment (Propeller Stand, Brake Assembly Tester, Engine Overhaul Stand, Centrifugal Sand Spreader for Sanding Icy Ramps).</i> (Aviation, Vol. 42, No. 11, November, 1943, pp. 211-215.) |
| 170                    | 19802 U.S.A. ...      | <i>Overseas Repair of Military Types.</i> (C. W. Vogt, Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 80-82.)   |
| 171                    | 19805 U.S.A. ...      | <i>Civilian Automotive Advisers (Motor Specialists Aid the Army's Maintenance Training Programme).</i> (J. A. Bell, Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 99-101.)                       |
| 172                    | 19881 Germany ...     | <i>Fault Detector for Hydraulic Systems.</i> (Junkers, Flugsport, Vol. 36, No. 1, 19/1/44, pp. 5-6.)   |
| <b>A.A. and A.R.P.</b> |                       |  |
| 173                    | 18594 U.S.A. ...      | <i>Anti-Aircraft with Armoured Divisions.</i> (L. A. Long, Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, pp. 5-7.)  |
| 174                    | 18595 U.S.A. ...      | <i>Anti-Aircraft Target Practice.</i> (Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, pp. 13-15.)  |
| 175                    | 18596 U.S.A. ...      | <i>Airborne A.A. Batteries.</i> (J. J. Stark, Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, pp. 22-23.)   |



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
176	18598 Germany ...	<i>German Doctrine: A.A. Defence (from General Von Cochenhausen's Tactical Handbook for Troop Commander)</i> . (Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, pp. 28-30.)
177	18601 U.S.A. ...	<i>The A.A. Officer Candidate School (General Organisation, etc.)</i> . (J. E. Aber, Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, pp. 40-42.)
178	18608 U.S.A. ...	<i>The Bazooka—New Anti-Tank Gun</i> . (Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, p. 70.)
179	18609 U.S.A. ...	<i>Berlin's A.A. Towers</i> . (Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, p. 72.)
180	18610 U.S.A. ...	<i>Russian A.A. Weapons</i> . (Coast Artillery Journal, Vol. 86, No. 3, May-June, 1943, p. 72.)
181	18618 U.S.A. ...	<i>Nebelwerfer 41 (Fog Thrower)</i> . (W. Ley, Coast Artillery Journal, Vol. 86, No. 4, July-August, 1943, pp. 42-43.)
182	18625 U.S.A. ...	<i>Small Arms Against Planes</i> . (Coast Artillery Journal, Vol. 86, No. 4, July-August, 1943, p. 63.)
183	18689 Switzerland ...	<i>A.A. Searchlights (Contd.)</i> . (H. Born, Flugwehr und Technik, Vol. 5, No. 7, March, 1943, pp. 69-73.)
184	18693 Switzerland ...	<i>A.A. Searchlight Batteries</i> . (H. Born, Flugwehr und Technik, Vol. 5, No. 3, March, 1943, pp. 69-72.)
185	18722 Switzerland ...	<i>Optical Training Methods for Controlling the Effectiveness of A.A. Fire</i> . (H. Baasch, Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, pp. 316-321.)
186	18732 Switzerland ...	<i>The Training of A.A. Gun Crews</i> . (W. M. Graf, Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, pp. 293-294.)
187	18715 Switzerland ...	<i>The Utilisation of Small Calibre A.A. Guns</i> . (H. Born, Flugwehr und Technik, Vol. 5, No. 7, July, 1943, pp. 185-187.)
188	19804 U.S.A. ...	<i>Anti-Aircraft Artillery</i> . (Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 87-96.)
189	19809 U.S.A. ...	<i>A New Anti-Aircraft Gun Electrical Director—M9</i> . (Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, p. 123.)
190	19813 U.S.A. ...	<i>Recent German Weapons (Rocket Guns, etc.)</i> . (Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 128-129.)
191	19919 G.B. ...	<i>Flak (Survey of German Equipment A.A. Organisation and Tactics)</i> . (V. L. Gruberg, Flight, Vol. 45, No. 1,834, 17/2/44, pp. 177-181.)
192	19669 Germany ...	<i>Protection Against Bomb Splinters (German A.R.P. Regulations for Design of Concrete and Brick Walls)</i> . (Z.V.D.I., Vol. 87, No. 5-6, 6/2/43, p. 87.)

#### AERODYNAMICS AND HYDRODYNAMICS.

193	12725 Germany ...	<i>The Heat Transfer to a Plate in Flow at High Speed</i> . (E. Eckert and O. Drewitz, Tech. Memo. 1,045, May-June, 1940.)
-----	-------------------	--

- | ITEM NO. | R.T.P. REF            | TITLE AND JOURNAL.   |
|----------|-----------------------|--|
| 194      | 18575 G.B. ...        | <i>Experimental Fluid Dynamics Applied to Engineering Practice—II (Fluid Flow in Pipes, Wind Action on Buildings and Tidal Flow)</i> . (G. A. Hankin, <i>Mechanical World</i> , Vol. 114, No. 2, 969, 26/11/43, pp. 628-633.)  |
| 195      | 18697 Switzerland ... | <i>Wind Tunnel Tests on Bird Models Made of Plaster (Peewit Gull) (Digest)</i> . (F. Feldmann, <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, p. 78.)   |
| 196      | 18903 U.S.A. ...      | <i>New Wind Tunnel at Wright Field (with Air Velocity Approaching the Speed of Sound)</i> . (N. E. Hopkins, <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 193-196, 294.)  |
| 197      | 19002 U.S.A. ...      | <i>Turbulent Friction in the Boundary Layer of a Flat Plate in a Two-Dimensional Compressible Flow at High Speeds</i> . (F. Frankl and V. Voishel, N.A.C.A. Technical Memo. No. 1,053, Dec., 1943, pp. 1-16.)  |
| 198      | 19072 G.B. ...        | <i>Flow States in Emergent Gas Streams</i> . (J. E. Gar-side and others, <i>Nature</i> , Vol. 152, No. 3,869, 25/12/43, p. 748.)   |
| 199      | 19370 G.B. ...        | <i>Possibilities in Boundary Layer Control</i> . ( <i>Flight</i> , Vol. 45, No. 1,832, 3/2/44, p. 130.)  |
| 200      | 19680 Germany ...     | <i>The Theory of the Steady Compression Shock</i> . ( <i>Z.V.D.I.</i> , Vol. 87, No. 51-52, 25/12/43, pp. 818-819.)  |
| 202      | 19710 U.S.A. ...      | <i>Aeronautical Index for 1939 (a Subject and Author Index to Aeronautical Periodicals and Technical Reports)</i> . (Institute of Aeronautical Sciences, 1943, pp. 1-315.)   |
| 203      | 19727 G.B. ...        | <i>The Influence of Reynolds Number at High Mach Numbers</i> . (A. Ferri, <i>J. Roy. Aeronaut. Soc.</i> , Vol. 48, No. 398, Feb., 1944, pp. 45-48.)  |
| 204      | 19869 U.S.A. ...      | <i>Heat Transfer and Hydraulic Flow Resistance for Streams of High Velocity</i> . ( <i>J. of Technical Physics</i> , U.S.S.R., Vol. 9, No. 9, 1939, pp. 808-818.) (Available as R.T.P. Translation T.M. 1,054.) (V. L. Lelchuk, N.A.C.A. Tech. Memo. No. 1,054, 1943.) |
| 205      | 19882 Germany ...     | <i>Influence of Re on M as Shown by Experiments on Spheres and Cylinders</i> . ( <i>Digest of Atti di Guidonia</i> 67-69.) (Profile series No. 39.) (H. O. Nicolaus, <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, pp. 157-160.)   |
| 206      | 19920 G.B. ...        | <i>Shock Waves at Sonic Speeds (Abstract)</i> . (W. F. Hilton, <i>Flight</i> , Vol. 45, No. 1,834, 17/2/44, p. 182.)   |

## AIRCRAFT, AIRSCREWS AND ACCESSORIES.

### Airlines and Civil Air Transport.

- |     |                  |   |
|-----|------------------|---|
| 207 | 18525 U.S.A. ... | <i>Airways for Peace (Survey of International Air Transport Problem)</i> . (Edward Warner, <i>Foreign Affairs</i> , Vol. 22, No. 1, Oct., 1943, pp. 11-27.) |
|-----|------------------|---|

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
208	18539 U.S.A.	... <i>Post-War Private Flying</i> . (J. H. Geisse, S.A.E. Preprints, 10-14/1/44, pp. 1-20.)
209	18569 G.B. ...	... <i>Post-War Transport in Great Britain</i> . (B. D. Richards, <i>Mechanical World</i> , Vol. 114, No. 2, 969, 26/11/43, pp. 614-615.)
210	18586 G.B. ...	... <i>American Air Transport Policy</i> . (W. A. M. Burden, <i>Aeroplane</i> , Vol. 66, No. 1, 703, 14/1/44, p. 30.)
211	19023 Canada	... <i>Growth of Air Mail Services in Canada</i> . (F. H. Ellis, <i>Canadian Aviation</i> , Vol. 16, No. 7, July, 1943, pp. 41-44, 98.)
212	19034 Canada	... <i>Canada's Post-War Air Policy</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 5, May, 1943, pp. 76-78, 116.)
213	19046 Canada	... <i>Canada's Air Future</i> . (C. H. Dickins, <i>Canadian Aviation</i> , Vol. 16, No. 8, Aug., 1943, pp. 100-104.)
214	19200 G.B. ...	... <i>Indian Civil Aviation</i> . ( <i>Aeronautics</i> , Vol. 9, No. 5, Dec., 1943, p. 52.)
215	19289 G.B. ...	... <i>Post-War Transport in Great Britain</i> . (D. B. Richards, <i>Civil Engineering</i> , Vol. 38, No. 450, Jan., 1944, pp. 266-267.)
216	19293 G.B. ...	... <i>Flying Boats in Post-War Aviation</i> . (O. Stewart, <i>Aeronautics</i> , Vol. 9, No. 6, January, 1944, pp. 27, 51-53.)
217	19497 G.B. ...	... <i>China's Life-Line (the Air Route from Bengal to China)</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1, 706, 4/2/44, p. 132.)
218	19503 U.S.A.	... <i>Britain's Pioneer Work in the Development of African Air Routes</i> . ( <i>Aviation</i> , Vol. 42, No. 11, November, 1944, pp. 196-197, 281-290.)
219	19775 G.B. ...	... <i>The Future of Air Transport in Europe—I</i> . (General M. Valin, <i>Aeroplane</i> , Vol. 66, No. 1, 707, 11/2/44, pp. 165-166.)
220	19836 U.S.A.	... <i>The Philosophy of Aviation</i> . (R. S. Damon, <i>Mechanical Engineering</i> , Vol. 66, No. 1, Jan., 1944, pp. 13-14, 71.)

#### Civil and Experimental Aircraft Types.

221	18512 U.S.A.	... <i>Nash-Kelvinator Sikorsky Helicopter (Photo)</i> . ( <i>Iron Age</i> , Vol. 151, No. 24, 17/6/43, p. 78.)
222	18646 Germany	... <i>Horten Va. Tailless Aircraft Utilising Phenolic Resins as Structural Material (Engine Bearers and Undercarriages Steel Tubing)</i> . ( <i>Horten, Flugsport</i> , Vol. 35, No. 16, 15/12/43, pp. 249-251.)
223	18650 Germany	... <i>Horten IV Tailless Glider (Photograph Showing Prone Position of Pilot)</i> . ( <i>Flugsport</i> , Vol. 35, No. 16, 15/12/43, p. 259.)
224	19033 Canada	... <i>V.S. 300 Helicopter</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 5, May, 1943, pp. 62-66, 120.)
225	19057 Canada	... <i>Powered Gliders—Sky Freighters of the Future</i> . (K. Edger, <i>Canadian Aviation</i> , Vol. 16, No. 9, Sept., 1943, pp. 52-53.)
226	19174 G.B. ...	... <i>A Successful Rotating Wing Aircraft (Sikorsky)</i> . ( <i>Aeronautics</i> , Vol. 9, No. 3, October, 1943, p. 57.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
227	19197 G.B. ...	<i>Tri-Float Seaplanes (Vought-Sikorsky Kingfisher)</i> . (Aeronautics, Vol. 9, No. 5, Dec., 1943, pp. 34-35.)
228	19379 G.B. ...	<i>The Avro York</i> . (Aeroplane, Vol. 66, No. 1,705, 28/1/44, pp. 105-106.)
229	19510 U.S.A. ...	<i>PV-2 Helicopter Makes First Public Flight</i> . (Aviation, Vol. 42, No. 11, November, 1943, p. 229.)
230	19750 G.B. ...	<i>Flying Boats</i> . (A. Gouge, Flight, Vol. 45, No. 1,833, 10/2/44, pp. 152-153.)
231	19776 France ...	<i>Bloch 161 and 220 Air Liners (Photos)</i> . (Aeroplane, Vol. 66, No. 1,707, 11/2/44, p. 146.)
232	19879 Germany ...	<i>British and American Cargo Gliders</i> . (Flugsport, Vol. 36, No. 1, 19/1/44, pp. 2-4.)
233	19897 Germany ...	<i>Blohm and Voss B.V. 138 Long Range Flying Boat</i> . (Flugsport, Vol. 35, No. 15, 17/11/43, pp. 225-226.)
<b>General Design.</b>		
234	18548 G.B. ...	<i>Weight Estimating</i> . (L. W. Rosenthal, Flight, Vol. 45, No. 1,829, 13/1/44, p. 41.)
235	18556 G.B. ...	<i>Approximate Solution for Tapered Pin-Ended Struts</i> . (H. Templeton, Journal of the Royal Aeronautical Society, Vol. 48, No. 397, January, 1944, pp. 6-11.)
236	18828 G.B. ...	<i>Charts for the Determination of the Lateral and Longitudinal Quarter Mean Chord Position for Wings with a Parallel Centre Section and Tapering Outer Section</i> . (H. Roberts, Aircraft Engineering, Vol. 16, No. 179, January, 1944, pp. 15-17.)
237	1887 U.S.A. ...	<i>Aircraft Design Considerations (Study of High Strength Plastics as Structural Material for Use in Aircraft Stressed Parts)</i> . (H. R. Gardon, Modern Plastics, Vol. 21, No. 1, Sept., 1943, pp. 101-110, 142-152.)
238	18902 U.S.A. ...	<i>Use of Wood in Aircraft Design and Construction—Part I</i> . (J. J. Wallace, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 190-191, 284.)
239	18913 U.S.A. ...	<i>Weight Control in Specification Writing—Part 1</i> . (J. E. Ayers, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 251-252.)
240	19051 Canada ...	<i>Standard Sizes of Aircraft Tubing</i> . (Canadian Aviation, Vol. 16, No. 8, Aug., 1943, p. 140.)
241	19159 G.B. ...	<i>Plane Vans (Detachable Fuselage)</i> . (Aeronautics, Vol. 9, No. 4, November, 1943, p. 68.)
242	19194 G.B. ...	<i>Structural Integration (Pertinent Criticisms of Modern Aircraft Design)</i> . (Aeronautics, Vol. 9, No. 5, Dec., 1943, p. 27.)
243	19255 U.S.A. ...	<i>Aircraft Electric Remote Controls</i> . (W. P. Lear, S.A.E. Preprints, 16/4/43.)
244	19256 U.S.A. ...	<i>Hydraulic Electric Remote Controls</i> . (W. C. Trautman, S.A.E. Preprints, 16/4/43.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
245	19257 U.S.A.	... <i>Aircraft Hydraulic Remote Controls</i> . (J. W. Kelly, S.A.E. Preprints, 16/4/43.)
246	19305 G.B.	... <i>Standardised Flight Controls (General Aircraft, Ltd., Patent)</i> . (Aeronautics, Vol. 9, No. 6, Jan., 1944, pp. 62-63.)
247	19388 G.B.	... <i>Colour and Design in Civil Aviation</i> . (Flight, Vol. 45, No. 1,831, 27/1/44, p. 104.)
248	19471 U.S.A.	... <i>Deficiencies of Converted Passenger Aeroplanes for Cargo Transport and Operating Requirements</i> . (C. Froesch, S.A.E. Journal, Vol. 51, No. 12, December, 1943, pp. 432-438.)
249	19477 U.S.A.	... <i>Some Tactical Considerations in Aircraft Design (Summary of Paper)</i> . (F. O. Carroll, S.A.E. Journal, Vol. 51, No. 12, December, 1943, pp. 33, 35-36.)
250	19916 G.B.	... <i>Tail of Campini Jet Propelled Monoplane is Completely Detachable (Photo)</i> . (Flight, Vol. 45, No. 1,834, 17/2/44, p. 172.)

#### Performance (Calculations and Testing).

251	18540 U.S.A.	... <i>Structural Flight Research (Determination of Static and Manœuvring Loads, etc.)</i> . (W. L. Howland, S.A.E. Preprints, 10-14/1/44, pp. 1-10.)
252	18557 Germany	... <i>Comparison of Various Methods for Determining Flight Speed at Great Altitudes</i> . (R.T.P.3 Translation No. 1,797.) (R. Schmidt, Journal of the Royal Aeronautical Society, Vol. 48, No. 397, January, 1944, pp. 12-23.)
253	18673 Germany	... <i>A New Low Temperature Test Chamber (Temperatures Down to -115°C.) (Digest)</i> . (From Zeitschrift für die gesamte Kälte-Industrie, Vol. 50, Nos. 5-6, May-June, 1943, pp. 57-62.) (H. Glaser, Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 343-347.)
254	18698 Switzerland	... <i>Some Simplified Methods for Determining Diving Speeds (Digest)</i> . (J. Patry, Flugwehr und Technik, Vol. 5, No. 3, March, 1943, p. 78.)
255	18897 U.S.A.	... <i>Performance Calculations (Study of Drag)</i> . (M. M. Munk, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 160-162, 304-320.)
256	19018 U.S.A.	... <i>Record-Breaking Non-Stop Flight by Gliders</i> . (U.S. Air Services, Vol. 28, No. 9, Sept., 1943, p. 38.)
257	19036 Canada	... <i>Atlantic Speed Records Set Up by Ferry Command Planes</i> . (Canadian Aviation, Vol. 16, No. 5, May, 1943, p. 88.)
258	19185 G.B.	... <i>Initial Performance Testing</i> . (R. G. Worcester, Aeronautics, Vol. 9, Nos. 4-6, August, 1943, pp. 44-46.)
259	19883 Germany	... <i>Competition for Engine Driven Model Aircraft (List of Regulations)</i> . (Flugsport, Vol. 36, No. 1, 19/1/44, pp. 15-16.)
260	19917 G.B.	... <i>Flight Testing Methods (Abstract of Paper to R. Aer. Society)</i> . (E. T. Jones, Flight, Vol. 45, No. 1,834, 17/2/44, pp. 175-176.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Stability, Control.</b>		
261	18690	Switzerland ... <i>The Take-off of Heavily Loaded Aircraft.</i> (H. L. Studer and F. Widmer, <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, pp. 75-77.)
262	18694	Switzerland ... <i>The Take-off of Heavily Loaded Aircraft.</i> (H. L. Studer and F. Widmer, <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, pp. 75-77.)
263	18708	Switzerland ... <i>Wing Forces Due to Torsion (Deformation of Section).</i> (A. Manser, <i>Flugwehr und Technik</i> , Vol. 5, No. 1, Jan., 1943, pp. 21-23.)
264	19027	Canada ... <i>Detectives of Flutter (Account of Research Carried Out by the Glenn L. Martin Co.).</i> ( <i>Canadian Aviation</i> , Vol. 16, No. 7, July, 1943, pp. 64-69.)
265	19146	G.B. ... <i>The Flutter Problem (Some Early Attempts at Prevention).</i> ( <i>Aeronautics</i> , Vol. 9, No. 4, November, 1943, p. 27.)
266	19860	Canada ... <i>High Speed Stall.</i> (L. Sloan, <i>Canadian Aviation</i> , Vol. 16, No. 12, Dec., 1943, pp. 86-88.)
<b>General Equipment.</b>		
267	18844	U.S.A. ... <i>Supplementary Fuel Tanks (Made of Phenolic Sisal).</i> ( <i>Modern Plastics</i> , Vol. 21, No. 2, October, 1943, p. 78.)
268	18845	U.S.A. ... <i>Lightweight Hinge for Aircraft (Plastic).</i> ( <i>Modern Plastics</i> , Vol. 21, No. 2, October, 1943, p. 79.)
269	18847	U.S.A. ... <i>Portable Fluorescent Extension Lamp for Illuminating Interior Installations in Modern Planes (Use of Plastics).</i> (E. P. Louger, <i>Modern Plastics</i> , Vol. 21, No. 2, October, 1943, pp. 83, 144.)
270	18854	U.S.A. ... <i>Captured Enemy Material (Use of Plastics in A.A. Equipment, Guns, etc.).</i> ( <i>Modern Plastics</i> , Vol. 21, No. 2, Oct., 1943, pp. 80, 130.)
271	18898	U.S.A. ... <i>Parallel Operation of Aeroplane Alternators.</i> (D. W. Exner, <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 172-174, 298-304.)
272	19324	G.B. ... <i>Anti-Vibration Foundation for Air Compressor.</i> ( <i>Machinery</i> , Vol. 63, No. 1, 6/27, 16/12/43, pp. 678-679.)
273	19609	U.S.A. ... <i>New Aircraft Heater for High Altitude Flying.</i> ( <i>American Aviation</i> , Vol. 7, No. 14, 15/12/43, p. 72.)
<b>Propellers.</b>		
274	19306	G.B. ... <i>A Sheet Metal Airscrew Blade (Constant Speed Airscrews, Ltd., Patent).</i> ( <i>Aeronautics</i> , Vol. 9, No. 6, Jan., 1944, p. 63.)
275	19667	Germany ... <i>Variable Pitch Propeller for Large Ships.</i> ( <i>Z.V.D.I.</i> , Vol. 87, Nos. 5-6, 6/2/43, p. 86.)
276	19884	Germany ... <i>Compressed Wooden Airscrew Blades (728,750).</i> ( <i>Heine, Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 81.)
277	19885	Germany ... <i>Constant Speed Varel Pitch Airscrew Mechanism, including Brake Operation (738,969).</i> ( <i>Junkers, Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 81.)

- | ITEM NO.                  | R.T.P. REF. | TITLE AND JOURNAL.  |
|---------------------------|-------------|---|
| 278                       | 19886       | Germany ... <i>Epicyclic Gear for Airscrew Blades</i> (739,833). (V.D.M., <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 81.)   |
| 279                       | 19887       | Germany ... <i>Hydraulic V.P. Airscrew Mechanism</i> (739,218). (Junkers, <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 82.)   |
| 280                       | 19888       | Germany ... <i>Blade Stops for Hydraulically Operated V.P. Airscrew</i> (739,834). (V.D.M., <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, p. 82.)                                 |
| 281                       | 19889       | Germany ... <i>Cooling Air Intake Control for Air-Cooled Engine Operating V.P. Airscrew</i> (739,719). (B.M.W., <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, pp. 82-83.)         |
| 282                       | 19894       | Germany ... <i>Utilising Propeller Inertia for Starting Up Aero Engine</i> (738,877). (D.B., <i>Flugsport</i> , Vol. 36, No. 1, 19/1/44, pp. 84-85.)                            |
| 283                       | 19907       | Germany ... <i>Automatic Reverse Pitch Propeller Braking Operated by Ground Contact Pressure</i> (736,112). (Heinkel, <i>Flugsport</i> , Vol. 35, No. 15, 17/11/43, pp. 70-71.) |
| 284                       | 20057       | Switzerland ... <i>Note on "Use of Propeller as a Brake."</i> (J. Ackeret, <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, p. 83.)                                    |
| <b>Cockpits, Cabins.</b>  |             |   |
| 285                       | 18849       | U.S.A. ... <i>Transparent Enclosures in Aircraft.</i> (O. E. Brown and W. N. Arata, <i>Modern Plastics</i> , Vol. 21, No. 2, Oct., 1943, pp. 87-93, 140.)                       |
| 286                       | 19176       | G.B. ... <i>Pressure Cabin (Bendix Patent).</i> ( <i>Aeronautics</i> , Vol. 9, No. 3, October, 1943, pp. 58-59.)  |
| 287                       | 19203       | G.B. ... <i>A Gallery of Cockpits (Photos).</i> ( <i>Aeronautics</i> , Vol. 9, No. 5, Dec., 1943, pp. 58-59.)   |
| <b>Wings, Flaps, etc.</b> |             |   |
| 288                       | 18651       | Germany ... <i>Retractable and Rotatable High Lift Flap</i> (738,636). (Arado, <i>Flugsport</i> , Vol. 35, No. 16, 15/12/43, p. 75.)  |
| 289                       | 18665       | Germany ... <i>Aerodynamic Wing Brake</i> (715,740). (Messerschmitt, <i>Flugsport</i> , Vol. 35, No. 16, 15/12/43, p. 80.)  |
| 290                       | 19204       | G.B. ... <i>The Youngman Wing Flap (Fairey Patent).</i> ( <i>Aeronautics</i> , Vol. 9, No. 5, Dec., 1943, p. 60.)   |
| 291                       | 19908       | Germany ... <i>Combined Diving Brake and Landing Flap</i> (737,178). (D.F.S., <i>Flugsport</i> , Vol. 35, No. 15, 17/11/43, p. 71.)   |
| 292                       | 19909       | Germany ... <i>Diving Brake Consisting of Staggered Prongs</i> (737,445). (Arado, <i>Flugsport</i> , Vol. 35, No. 15, 17/11/43, p. 71.)   |
| <b>Landing Gear.</b>      |             |   |
| 293                       | 18552       | G.B. ... <i>Tricycle Landing Gears—Review of Design and Performance Criteria.</i> ( <i>Flight</i> , Vol. 45, No. 1,829, 13/1/44, pp. 48-49.)                                    |
| 294                       | 18660       | Germany ... <i>Spring Legs and Shock Absorbers</i> (739,677-739,678). ( <i>Elektron</i> , <i>Flugsport</i> , Vol. 35, No. 16, 15/12/43, p. 76.)                                 |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
295	18661 Germany	... <i>Spring Legs</i> (740,079). (Messerschmitt, Flugsport, Vol. 35, No. 16, 15/12/43, p. 78.)
296	18662 Germany	... <i>Retractable Undercarriage</i> (739,679). (Henschel, Flugsport, Vol. 35, No. 16, 15/12/43, pp. 78-79.)
297	18663 Germany	... <i>Retractable Undercarriage</i> (739,680). (Messerschmitt, Flugsport, Vol. 35, No. 16, 15/12/43, p. 79.)
298	18664 Germany	... <i>Jettisonable Undercarriages (Flexible Wheel Connection)</i> (740,220). (Gotha, Flugsport, Vol. 35, No. 16, 15/12/43, p. 80.)
299	18826 G.B.	... <i>Some Notes on Pneumatic Tyres</i> . (R. Hadekel, Aircraft Engineering, Vol. 16, No. 179, January, 1944, pp. 11-13, 17.)
300	19901 Germany	... <i>Preliminary Rotation of Landing Wheels</i> (735,458). (Elektron, Flugsport, Vol. 35, No. 15, 17/11/43, p. 65.)
301	19902 Germany	... <i>Undercarriage Dampers</i> (735,460, 736,718). (Elektron, Flugsport, Vol. 35, No. 15, 17/11/43, pp. 65-66.)
302	19903 Germany	... <i>Ring Springs for Undercarriage Struts</i> (737,615). (Focke-Wulf, Flugsport, Vol. 35, No. 15, 17/11/43, p. 66.)
303	19905 Germany	... <i>Retractable Undercarriages</i> (735,188, 735,942, 736,110, 736,720). (Various, Flugsport, Vol. 35, No. 15, 17/11/43, pp. 67-69.)
304	19906 Germany	... <i>Landing Gear for Either Skid or Wheel Operation at Will</i> (736,719). (Arado, Flugsport, Vol. 35, No. 15, 17/11/43, p. 68.)

#### De-icing.

305	18922 U.S.A.	... <i>De-Icer System with Electronic Control</i> . (Aero Digest, Vol. 43, No. 5, November, 1943, p. 324.)
306	19031 Canada	... <i>Lumarith Plastic Sheets for Windshields (Solves Icing Problem on Seaplanes)</i> . (Canadian Aviation, Vol. 16, No. 7, July, 1943, p. 116.)
307	19910 Germany	... <i>Wing De-Icing by Exhaust Assisted by a Combustible Charge</i> (736,113). (D.F.S., Flugsport, Vol. 35, No. 15, 17/11/43, p. 71.)

#### Airport Operation.

308	18553 G.B.	... <i>Experimental Soil Mechanics—Part VI</i> . (R. Allin, Civil Engineering, Vol. 38, No. 449, November, 1943, pp. 238-239.)
309	18961 G.B.	... <i>Airfield Saturation (Growing Difficulty of Finding Suitable Sites)</i> . (Flight, Vol. 45, No. 1,830, 20/1/43, p. 73.)
310	19113 G.B.	... <i>Proposed Air Base at Southampton</i> . (Engineering, Vol. 157, No. 4,071, 21/1/44, p. 53.)
311	19167 G.B.	... <i>Portable Heatable Oil Tank for Airport</i> . (National Petroleum News, Vol. 35, No. 47, 24/11/43, p. 34.)
312	19198 G.B.	... <i>World Air Junction (Gatwick Airport Development Plan Advocated in Norman and Dawbarn's Report)</i> . (Aeronautics, Vol. 9, No. 5, Dec., 1943, pp. 40-44.)



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
313	19254 G.B. ...	... <i>Runway Materials</i> . (Aeronautics, Vol. 9, No. 4 Nov., 1943.)
314	19387 G.B. ...	... <i>Three Proposed Airports—Southampton, Portsmouth and Morecambe as Sites for Transatlantic Terminals</i> . (Flight, Vol. 45, No. 1,831, 27/1/44, pp. 103-104.)
315	19397 G.B. ...	... <i>Vancouver Builds an Airport</i> . (A. F. Roberts, Commercial Aviation, Vol. 5, No. 10, October, 1943, pp. 80-84.)
316	19637 U.S.A. ...	... <i>Maintaining the Nation's Model Airport (Washington National Airport)</i> . (J. E. Steinhauer, Aviation Maintenance, Vol. 1, No. 1, December, 1943, pp. 79-82.)
317	19765 G.B. ...	... <i>Use of Cold and Wet Aggregate in Bituminous Construction for Roads and Aerodromes</i> . (A. R. Lee and R. E. Carter, Chemistry and Industry, No. 7, 12/2/44, p. 64.)
318	19771 G.B. ...	... <i>Technical Characteristics of Aerodromes. Part I—Siting and Layout of Land Aerodromes (Issued by the Dept. of Civil Aviation)</i> . (Aéroplane, Vol. 66, No. 1,707, 11/2/44, pp. 150-151.)
319	19874 Germany ...	... <i>Aerodrome Ground Lights (733,733)</i> . (Siemens, Flugspport, Vol. 36, No. 1, 19/1/44, p. 86.)
320	19878 Germany ...	... <i>Inlet Valve for Compressed Air Catapults (739,293)</i> . (Heinkel, Flugspport, Vol. 36, No. 1, 19/1/44, p. 88.)
321	19926 G.B. ...	... <i>American Airport Research</i> . (The Aeroplane, Vol. 66, No. 1,708, 18/2/44, p. 182.)
322	19956 G.B. ...	... <i>Technical Characteristics of Aerodromes. Part I—Siting and Layout of Land Aerodromes (Pamphlet)</i> . (Department of Civil Aviation, Air Ministry, Feb., 1944, pp. 1-41.)
323	19998 U.S.A. ...	... <i>Alaska Seen as Centre of World Air Transport (Abstract of Report)</i> . (American Aviation, Vol. 7, No. 16, 15/1/44, p. 32.)
324	19999 U.S.A. ...	... <i>Wooden Cargo Slide Devised by American Airlines to Simplify Unloading Problems (Photo)</i> . (American Aviation, Vol. 7, No. 16, 15/1/44, p. 45.)

### ENGINES AND ACCESSORIES.

#### Named Engine Types.

325	18545 G.B. ...	... <i>2,200 h.p. Napier Sabre</i> . (F. C. Sheffield, Flight, Vol. 45, No. 1,829, 13/1/44, pp. 34-36.)
326	18562 G.B. ...	... <i>A New Aspin Engine (a Four-Cylinder Water-Cooled Unit for Commercial Vehicles)</i> . (L. Mantell, Automobile Engineer, Vol. 34, No. 445, January, 1944, pp. 25-32.)
327	18667 G.B. ...	... <i>A Swedish Aero Engine of 2,500 h.p. (Digest) (The Mannerstedt Engine)</i> . (From Flyg, Vol. 21, No. 18, 9-22/9/43, pp. 21-24.) (Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 333-334.)
328	18728 Germany ...	... <i>B.M.W. 802 2,000 h.p. Radial</i> . (Flugwehr und Technik, Vol. 4, No. 12, Dec., 1943, p. 329.)
329	18738 Germany ...	... <i>Juno 211 Petrol Injection Engine</i> . (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, p. 300.)

- | ITEM NO.                        | R.T.P. REF.    | TITLE AND JOURNAL.  |
|---------------------------------|----------------|---|
| 330                             | 18959 G.P      | ... <i>The 2,200 h.p. Cyclone (New Wright Engine Passes Ground and Flight Tests)</i> . (Flight, Vol. 45, No. 1,830, 20/1/43, p. 69.)  |
| 331                             | 18960 G.B. ... | ... <i>A Third of a Century (Review of Bristol Engine Developments, including the Sleeve Valve Engine)</i> . (Flight, Vol. 45, No. 1,830, 20/1/43, pp. 70-71.)  |
| 332                             | 19008 G.B. ... | ... <i>Sabre-Typhoon</i> . (Aircraft Production, Vol. 6, No. 64, Feb., 1944, p. 76.)  |
| 333                             | 19024 Canada   | ... <i>Packard Powered Mosquito</i> . (Canadian Aviation, Vol. 16, No. 7, July, 1943, pp. 45, 56.)  |
| 334                             | 19365 G.B. ... | ... <i>French Engine Developments (Gnome and Rhone and Hispano Designs)</i> . (Flight, Vol. 45, No. 1,832, 3/2/44, p. 121.)   |
| <b>Design and Installation.</b> |                |   |
| 335                             | 18541 U.S.A.   | ... <i>Diesel Engine Design Trends from War Experience of the U.S. Navy</i> . (E. C. Magdeburger, S.A.E. Preprints, 10-14/1/44, pp. 1-6.)   |
| 336                             | 18684 Germany  | ... <i>The K-Profile Shaft Seat in Aero Engine and Vehicle Construction (Digest)</i> . (From Fertigungstechnik, No. 4, July, 1943, pp. 82-83.) (C. Wolf, Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 361-362.) |
| 337                             | 18904 U.S.A.   | ... <i>Aircraft Power Plant Control Systems (Overcoming Backlash)</i> . (N. N. Rubin, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 198-204, 451.)   |
| 338                             | 18923 U.S.A.   | ... <i>Combination Air Scoop and Filter to Improve Aeroplane Engine Carburation</i> . (Aero Digest, Vol. 43, No. 5, November, 1943, p. 338.)  |
| 339                             | 18932 U.S.A.   | ... <i>Synthetic Rubber Applications on Aircraft Engines</i> . (G. H. Spremulli, S.A.E. Preprints, 10-14/1/44, pp. 1-24.)   |
| 340                             | 19151 G.B. ... | ... <i>A Discussion of Selected German Aero Engine Features (Supercharger and Supercharger Drive, Hydraulic Coupling, etc.)</i> . (Aeronautics, Vol. 9, No. 4, Nov., 1943, pp. 39-42.)                                |
| 341                             | 19205 G.B. ... | ... <i>New Barrel Type Engine (24 Cylinders) (Patent)</i> . (Aeronautics, Vol. 9, No. 5, Dec., 1943, p. 62.)  |
| 342                             | 19307 G.B. ... | ... <i>Steam-Driven Aircraft (Report of New American Design)</i> . (Aeronautics, Vol. 9, No. 6, Jan., 1944, p. 66.)   |
| 343                             | 19610 U.S.A.   | ... <i>Development of Piston Type Steam Engine for Aeroplane</i> . (American Aviation, Vol. 7, No. 14, 15/12/43, p. 87.)  |
| 344                             | 19890 Germany  | ... <i>Elastic Suspension for Wing Engine (738,554)</i> . (Julian, Flugsport, Vol. 36, No. 1, 19/1/44, p. 83.)  |
| 345                             | 19892 Germany  | ... <i>Tunnel Installation for Wing Radiators (738,758)</i> . (Heinkel, Flugsport, Vol. 36, No. 1, 19/1/44, pp. 83-84.)   |
| <b>Jet Propulsion.</b>          |                |   |
| 346                             | 18637 G.B. ... | ... <i>Jet Propelled Aircraft (Official Statement)</i> . (Engineer, Vol. 177, No. 4,592, 14/1/44, pp. 32, 34.)  |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
347	18834 G.B. ...	<i>Jet Propulsion—Its Advantages and Limitations.</i> (Aircraft Engineering, Vol. 16, No. 179, January, 1944, p. 1.)
348	19101 G.B. ...	<i>The History of Jet Propulsion—No. II.</i> (Engineer, Vol. 157, No. 4,594, 28/1/44, pp. 64-66.)
349	19177 G.B. ...	<i>American Plan for Jet Propelled Aircraft (Air Streams Forced by Engine-Driven Blowers from Inside the Wings).</i> (Aeronautics, Vol. 9, No. 3, October, 1943, p. 59.)
350	19461 G.B. ...	<i>The History of Jet Propulsion—No. III.</i> (Engineer, Vol. 177, No. 4,595, 4/2/44, pp. 84-86.)
351	19840 U.S.A. ...	<i>New Method of Jet Propulsion ("Direpeller" System: Jet Projected at Right Angles to an Air Stream).</i> (E. Lagelbauer, Mechanical Engineering, Vol. 66, No. 1, Jan., 1944, pp. 66-67.)
352	19915 G.B. ...	<i>Jet versus Airscrew—Consideration of Turbine-Driven Airscrews.</i> (G. G. Smith, Flight, Vol. 45, No. 1,834, 17/2/44, pp. 171-172.)
<b>Accessories (Pistons, Bearings, etc.).</b>		
353	18542 U.S.A. ...	<i>Some Physical and Wear Characteristics of Porous Chromium Plated Rings.</i> (T. C. Jarratt, S.A.E. Preprints, 10-14/1/44, pp. 1-5.)
354	18559 G.B. ...	<i>Piston Acceleration (a Graphic Representation of the Error Involved in the Usual Formula).</i> (A. W. Newman, Automobile Engineer, Vol. 34, No. 445, January, 1944, pp. 15-19.)
355	18577 G.B. ...	<i>Cam Design and Application.</i> (Mechanical World, Vol. 114, No. 2,969, 26/11/43, p. 637.)
356	18869 U.S.A. ...	<i>Engine Safety Shields (Plastacele).</i> (Modern Plastics, Vol. 20, No. 12, August, 1943, p. 62.)
357	18927 U.S.A. ...	<i>Rational Design of Fastenings.</i> (E. S. Jenkins, S.A.E. Preprints, 10-14/1/44, pp. 1-14.)
358	18930 U.S.A. ...	<i>Reclamation of Automotive Valves.</i> (N. Hoertz, S.A.E. Preprints, 10-14/1/44; pp. 1-7.)
359	18934 U.S.A. ...	<i>Summary of Technique of Chrome Plating of Cylinder Barrels.</i> (B. A. Yates, S.A.E. Preprints, 10-14/1/44, pp. 1-3.)
360	18976 G.B. ...	<i>Exhaust Valves for High Duty Internal Combustion Engines.</i> (C. A. Wilkins and W. J. Currie, Metal Treatment, Vol. 10, No. 35, Autumn, 1943, pp. 147-152, 201.)
361	19004 G.B. ...	<i>The Hercules Crankshaft—Design Features.</i> (J. A. Oates, Aircraft Production, Vol. 6, No. 64, Feb., 1944, pp. 59-66.)
362	19011 G.B. ...	<i>Pressed Aircraft Pistons—Part I (Adoption of Press Forging in the Place of the Drop Hammer Process).</i> (Aircraft Production, Vol. 6, No. 64, Feb., 1944, pp. 85-92.)
363	19193 G.B. ...	<i>Improvement in Shaft Bearing Design (Philip and Powis Patent).</i> (Aeronautics, Vol. 9, No. 1, August, 1943, p. 61.)
364	19342 G.B. ...	<i>Hydraulic Cylinder Design.</i> (Machinery, Vol. 64, No. 1,631, 13/1/44, pp. 44-45.)

- | ITEM NO.                        | R.T.P. REF.  | TITLE AND JOURNAL.   |
|---------------------------------|--------------|--|
| 365                             | 19472 U.S.A. | ... <i>Wartime Maintenance of Rings, Pistons and Cylinders.</i> (L. Doty, S.A.E. Journal, Vol. 51, No. 12, December, 1943, pp. 439-445.)   |
| 366                             | 19733 G.B.   | ... <i>Flexible Bearings and Bushings.</i> (The Engineer, Vol. 177, No. 4,596, 11/2/44, pp. 119-120.)  |
| 367                             | 19753 G.B.   | ... <i>Light Alloy Pistons (Review of Fabrication Methods and Materials).</i> (C. Wilson, Automobile Engineer, Feb., 1944, pp. 53-55.)   |
| 368                             | 19820 G.B.   | ... <i>Static and Clinging Friction of Pivot Bearings.</i> (M. C. Hunter, Engineering, Vol. 157, No. 4,074, 11/2/44, pp. 117-120.)   |
| <b>Testing.</b>                 |              |  |
| 369                             | 18928 U.S.A. | ... <i>Experimental Flight Testing from the Engine Manufacturers' Viewpoint.</i> (L. C. Miller, S.A.E. Preprints, 10-14/1/44, pp. 1-15.)   |
| 370                             | 19473 U.S.A. | ... <i>Comparison of Laboratory Diesel Engine Tests with Service Performance. (500 hr. Laboratory Tests and 60,000-Mile Service Tests Compared on the Basis of Bearing Corrosion, Ring Sticking, Filter Clogging, Engine Deposits, Wear, Used Oil Contamination, etc., Evaluation of the Performance of Lubricating Oils).</i> (R. S. Westmiller and B. Hegeman, S.A.E. Journal, Vol. 51, No. 12, December, 1943, p. 446.) |
| 371                             | 19576 U.S.A. | ... <i>Oscillations in Closed Surge Tanks.</i> (A. M. Binnie, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, p. A183-A186.)   |
| <b>Thermodynamics.</b>          |              |  |
| 372                             | 18564 G.B.   | ... <i>Water Cooling—the Effects of Film in Radiators and Cylinder Blocks.</i> (Automobile Engineer, Vol. 34, No. 445, January, 1944, p. 36.)  |
| 373                             | 19125 G.B.   | ... <i>The Thermal Rating of Worm Gearboxes—Part I.</i> (H. Walker, Engineering, Vol. 157, No. 4,072, 28/1/44, pp. 78-80.)   |
| 374                             | 19516 G.B.   | ... <i>The Thermal Rating of Worm Gearboxes.</i> (H. Walker, Engineering, Vol. 157, No. 4,073, 4/2/44, pp. 97-100.)  |
| 375                             | 19752 G.B.   | ... <i>Air Cooling—Improved Methods of Utilising Aluminium Fins.</i> (Automobile Engineer, Feb., 1944, p. 52.)   |
| <b>Performance, Efficiency.</b> |              |  |
| 376                             | 18536 U.S.A. | ... <i>Some of the Problems Presented in L-Head Engines Due to Continued Increases in Compression Ratio.</i> (E. J. Willis, S.A.E. Preprints, 10-14/1/44, pp. 1-3.)  |
| 377                             | 18538 U.S.A. | ... <i>Altitude Vapour Formation in Aircraft Fuel Systems (a Method of Stimulating Vapour Formations in Fuel Systems).</i> (W. H. Curtiss and R. R. Curtiss, S.A.E. Preprints, 10-14/1/44, pp. 1-11.)  |
| 378                             | 18933 U.S.A. | ... <i>Cooling System Performance of Liquid-Cooled Engines.</i> (C. A. Stamm and W. E. McCravey, S.A.E. Preprints, 10-14/1/44, pp. 1-13.)  |

- | ITEM NO.                               | R.T.P. REF.    | TITLE AND JOURNAL.   |
|--|----------------|--|
| 379                                    | 19044 Canada   | ... <i>Safeguards Against Corrosion of Aeroplane Engines.</i> (Canadian Aviation, Vol. 16, No. 8, Aug., 1943, pp. 83-84.)  |
| 380                                    | 19277 G.B. ... | ... <i>Poisonous Gases in the Exhaust of Diesel Engines.</i> (Nature, Vol. 153, No. 3,873, 22/1/44, p. 105.)   |
| 381                                    | 19817 G.B. ... | ... <i>Hydraulic Phenomena in Engine Fuel Injection Systems.</i> (N. Kendall, Engineering, Vol. 157, No. 4,074, 11/2/44, pp. 101-103.)   |
| <b>De-icing.</b>                       |                |  |
| 382                                    | 19401 G.B. ... | ... <i>New Engine Warmer for Winter Flying (New Patent).</i> (Commercial Aviation, Vol. 5, No. 10, October, 1943, pp. 144-146, 152.)   |
| 383                                    | 19891 Germany  | ... <i>Combined Intercooler and Wing De-Icer for Supercharged Engine (738,611).</i> (Junkers, Flugsport, Vol. 36, No. 1, 19/1/44, p. 83.)  |
| <b>Turbines, Pumps, Superchargers.</b> |                |  |
| 384                                    | 18674 Germany  | ... <i>Hot Air and Combustion Turbines in the Steam Power Plant (Digest).</i> (From Feuerungstechnik, Vol. 30, No. 9, 15/9/42, pp. 207-211.) (F. Nistler, Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 347-348.)   |
| 385                                    | 18678 Germany  | ... <i>Gas Turbine with Waste Heat Utilisation by Air Pre-Heating (Digest).</i> (From Die Wärme, Vol. 66, No. 17, Aug., 1943, pp. 200-201.) (H. Pfenninger, Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 352-353.) |
| 386                                    | 18815 G.B. ... | ... <i>Efficiencies of Combustion Turbines.</i> (W. J. Goudia, Engineering, Vol. 157, No. 4,070, 14/1/44, p. 34.)  |
| 387                                    | 18931 U.S.A.   | ... <i>Development of a Single Plunger Injection Pump for Four-Cylinder Diesel Engines.</i> (R. Bowers and R. E. Peterson, S.A.E. Preprints, 10-14/1/44, pp. 1-8.)   |
| 388                                    | 19041 Canada   | ... <i>Turbine Type Pumps for Aviation Fueling.</i> (Canadian Aviation, Vol. 16, No. 5, May, 1943, pp. 112-114.)   |
| 389                                    | 19118 G.B. ... | ... <i>Turbo-Supercharger Installation (Bristol Patent).</i> (Engineering, Vol. 157, No. 4,071, 21/1/44, p. 60.)   |
| 390                                    | 19175 G.B. ... | ... <i>Turbo-Supercharger Installation System Intended for Incorporation in Bristol Radial Engines (Bristol Patent).</i> (Aeronautics, Vol. 9, No. 3, October, 1943, p. 58.)   |
| 391                                    | 19190 G.B. ... | ... <i>Hobson Double Supercharger Unit (Patent).</i> (Aeronautics, Vol. 9, No. 1, August, 1943, p. 60.)  |
| 392                                    | 19207 G.B. ... | ... <i>Synchronous Turbine Governing.</i> (J. C. Prescott, Electrical Review, Vol. 133, No. 3,445, 3/12/43, pp. 735-738.)  |
| 393                                    | 19234 G.B. ... | ... <i>Wind Power Generators.</i> (W. S. Scholl, The Electrician, Vol. 131, No. 3,420, 17/12/43, pp. 602-603.)   |
| 394                                    | 19262 G.B. ... | ... <i>Erosion of Induced Draught Fens.</i> (V. Walker, Electrical Times, Vol. 104, No. 2,715, 4/11/43, pp. 542-544.)  |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
395	19270 G.B. ...	<i>Boiler Design—Factors that Influence Availability.</i> (V. Smith, <i>Electrical Review</i> , Vol. 133, No. 3,442, 12/11/43, pp. 647-649.)
396	19665 Germany ...	<i>Centrifugal Pump for Corrosive Liquids with Porcelain Rotir and Pressure Balanced Glands.</i> (W. Klein, <i>Z.V.D.I.</i> , Vol. 87, Nos. 5-6, 6/2/43, pp. 84-85.)
397	19692 U.S.A. ...	<i>On a Generalisation of Kirchoff's Theory of Transversal Plate Vibrations in the Vibration Problem of Steam Turbine Disks.</i> (I. Malkin, <i>Journal of the Franklin Institute</i> , Vol. 234, No. 4, October, 1942, pp. 369-385.)
398	19735 Germany ...	<i>The Energy Transformation in the Gas and Oil Turbine.</i> ( <i>Die Wärme</i> , Vol. 66, No. 15, June, 1943.) (W. Nusselt, <i>Miscellaneous</i> .)
399	19904 Germany ...	<i>Emerged Pump Installation for Hydraulic Systems (734,940).</i> (Morane-Saulnier, <i>Flugsport</i> , Vol. 35, No. 15, 17/11/43, pp. 66-67.)

## FUELS AND LUBRICANTS.

### General.

400	18534 U.S.A. ...	<i>Vapour Lock.</i> (R. J. S. Pigott, <i>S.A.E. Preprints</i> , 10-14/1/44, pp. 1-11.)
401	18929 U.S.A. ...	<i>Mobilised Research (Work of the Co-ordinating Research Council in the Solution of Problems of Fuels, Lubricants, etc.).</i> (C. B. Veal, <i>S.A.E. Preprints</i> , 10-14/1/44, pp. 1-17.)
402	18943 G.B. ...	<i>Wartime Shipment of Packed Petroleum (Documentary Film) (Handling and Stowage Fire Precautions and Fire Fighting).</i> ( <i>Petroleum Times</i> , Vol. 47, No. 1,208, 13/11/43, pp. 618-619.)
403	18947 G.B. ...	<i>"Front Line" U.S. Pipe Lines in N. Africa and Sicily.</i> ( <i>Petroleum Times</i> , Vol. 47, No. 1,203, 4/9/43, pp. 466-467.)
404	18948 G.B. ...	<i>Standard Temperature for Specific Gravity Determination and Volume Correction for Petroleum Products (60°F.).</i> ( <i>Petroleum Times</i> , Vol. 47, No. 1,203, 4/9/43, p. 470.)
405	18950 G.B. ...	<i>League of Nations "World Economic Survey, 1941-1942" (Some Extracts Pertaining to Fuel and Transport).</i> ( <i>The Petroleum Times</i> , Vol. 47, No. 1,203, 4/9/43, pp. 462, 468.)
406	19760 G.B. ...	<i>Post-War Fuels.</i> ( <i>Automobile Engineer</i> , Feb., 1944, p. 72.)
407	19767 G.B. ...	<i>Correlation of I.P. Lovibond and Saybolt Chromometer Colour Measurements on Motor Fuels and Refined Petroleum.</i> ( <i>Journal of the Institute of Petroleum</i> , Vol. 29, No. 240, Dec., 1943, pp. 357-360.)
408	19769 G.B. ...	<i>Abstracts (Including Abstracts Author Index and Abstracts Subject Index).</i> ( <i>Journal of the Institute of Petroleum</i> , Vol. 29, No. 240, Dec., 1943, pp. 423A-485A.)

- | ITEM NO.   | R.T.P. REF. | TITLE AND JOURNAL.  |
|--|-------------|---|
| 409  | 19988       | Germany ... <i>Apparatus for Investigating the Kinetics of Very Rapid Homogeneous Gas Reactions—Part I.</i> (G. Damkohler and A. Sander, <i>Z. fur Elektrochemie</i> , Vol. 48, No. 10, Oct., 1942, pp. 523-542.)   |
| 410  | 19989       | Germany ... <i>Apparatus for Investigating the Kinetics of Very Rapid Homogeneous Gas Reactions. Part II—Mixing Zones of Two Concentric Gas Streams Travelling at Different Velocities.</i> (G. Damkohler and A. Sander, <i>Z. fur Elektrochemie</i> , Vol. 48, No. 10, Oct., 1942, pp. 544-550.) |
| <b>Liquid Fuels.</b>                             |             |   |
| 411  | 19480       | U.S.A. ... <i>The Military Application of Fuels and Lubricants (Army Standardising on Two Types of Gasoline) (Summary).</i> (R. E. Jeffrey, <i>S.A.E. Journal</i> , Vol. 51, No. 12, December, 1943, pp. 33-34.)  |
| 413  | 19756       | G.B. ... <i>Temporary Fuels—a Consideration of the Prospects of Their Permanency.</i> (C. Ridley, <i>Automobile Engineer</i> , Feb., 1944, pp. 63-67.)  |
| 414  | 19779       | U.S.A. ... <i>New Army All-Purpose Fuel (New Specifications).</i> ( <i>National Petroleum News</i> , Vol. 35, No. 49, 8/12/43, pp. 28-30.)  |
| <b>High Octane Fuels.</b>                        |             |   |
| 415  | 18819       | U.S.A. ... <i>Viscosity of n-Pentane.</i> (R. M. Hubbard and G. G. Brown, <i>Industrial and Engineering Chemistry</i> , Vol. 35, No. 12, December, 1943, pp. 1276-1280.)  |
| 416  | 19778       | U.S.A. ... <i>100 Octane Aviation Gasoline and Post-War Motor Fuels.</i> ( <i>National Petroleum News</i> , Vol. 35, No. 49, 8/12/43, pp. 19-26.)   |
| <b>Gaseous Fuels.</b>                            |             |   |
| 417  | 18555       | G.B. ... <i>Vehicle Equipment with Compressed Town Gas.</i> (R. O. Moore, <i>Civil Engineering</i> , Vol. 38, No. 449, November, 1943, pp. 254-256.)  |
| 418  | 18669       | Germany ... <i>Gas Producers for Buses (Digest).</i> (From <i>Feuerungstechnik</i> , Vol. 31, No. 1, Jan., 1943, pp. 9-10.) (W. Gumz, <i>Engineers' Digest</i> , Vol. 4, No. 12, Dec., 1943, pp. 337-338.)  |
| 419  | 18821       | U.S.A. ... <i>Heat Capacities of Hydrocarbon Gases.</i> (D. R. Stull, <i>Industrial and Engineering Chemistry</i> , Vol. 35, No. 12, December, 1943, pp. 1303-1304.)  |
| 420  | 18949       | G.B. ... <i>The Producer Gas Plant Industry in France.</i> (E. A. Bell, <i>The Petroleum Times</i> , Vol. 47, No. 1,203, 4/9/43, p. 472.)   |
| 421  | 19122       | G.B. ... <i>Producer Gas.</i> ( <i>Engineering</i> , Vol. 157, No. 4,072, 28/1/44, pp. 71-72.)  |
| <b>Special or Powdered Fuels and Lubricants.</b> |             |   |
| 422  | 18565       | G.B. ... <i>Use of Dry Lubrication for Small Mechanisms (Colloidal Graphite in Acetone).</i> ( <i>Automobile Engineer</i> , Vol. 34, No. 445, Jan., 1944, p. 37.)   |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
423	18946 G.B. ...	<i>Creosote-Pitch Fuel: Its Wartime Development in Britain—I.</i> (A. J. Gibbs Smith, <i>The Petroleum Times</i> , Vol. 47, No. 1,204, 18/9/43, pp. 456-457.)
424	18979 G.B. ...	<i>Pulverised Coal for Metallurgical Furnaces.</i> (Metal Treatment, Vol. 10, No. 35, Autumn, 1943, p. 164.)
425	19283 G.B. ...	<i>Large Scale Use of Solid Fuels by German Motor Vehicles.</i> ( <i>Petroleum Times</i> , Vol. 48, No. 1,213, 22/1/44, p. 36.)
426	19285 G.B. ...	<i>Metering of Petroleum and Creosote-Pitch (Some Wartime Applications).</i> (F. H. Williams, <i>Petroleum Times</i> , Vol. 48, No. 1,213, 22/1/44, pp. 46-51, 56.)
<b>Oils and Lubricants.</b>		
427	18937 G.B. ...	<i>Lubricating and Cutting Oils</i> ( <i>Technical Bulletin</i> , Dec., 1943). (F. R. Kidd, <i>Journal of the Institution of Production Engineers</i> , Vol. 22, No. 12, December, 1943, pp. 101-112.)
428	18939 G.B. ...	<i>Arctic Oil Wells to Play Vital Rôle.</i> ( <i>The Petroleum Times</i> , Vol. 47, No. 1,210, 11/12/43, pp. 672-675.)
429	18944 G.B. ...	<i>British Army Design New Oil Supply Systems (German Containers Adapted for British Requirements).</i> ( <i>The Petroleum Times</i> , Vol. 47, No. 1,204, 18/9/43, pp. 488-489, 504, 512.)
430	18951 G.B. ...	<i>Oil Transport and Post-War Reconstruction in Europe.</i> (P. H. Frankel, <i>Petroleum Times</i> , Vol. 48, No. 1,212, 8/1/44, pp. 10-15.)
431	18952 G.B. ...	<i>Reclamation of Lubricating and Other Oils.</i> (V. L. Farthing, <i>Petroleum Times</i> , Vol. 48, No. 1,212, 8/1/44, pp. 16-22.)
432	18953 G.B. ...	<i>New Synthetic Oil Processes in Germany.</i> ( <i>Petroleum Times</i> , Vol. 48, No. 1,212, 8/1/44, p. 28.)
433	19169 G.B. ...	<i>Oil's Dramatic Rôle in War (Deliveries to War Fronts).</i> ( <i>National Petroleum News</i> , Vol. 35, No. 47, 24/11/43, pp. 17-18.)
434	19252 G.B. ...	<i>Conservation and Reclamation of Lubricating and Other Oils.</i> (W. L. Farthing, <i>Civil Engineering</i> , Vol. 38, No. 450, Jan., 1944, pp. 282-283.)
435	19282 U.S.A. ...	<i>Barge Transportation of Petroleum and River Oil Terminals.</i> (J. M. Gamble, <i>National Petroleum News</i> , Vol. 35, No. 48, 1/12/43, pp. 28-32.)
436	19284 G.B. ...	<i>Roumania's Oil Industry.</i> (E. A. Bell, <i>Petroleum Times</i> , Vol. 48, No. 1,213, 22/1/44, pp. 42-44, 58.)
437	19470 U.S.A. ...	<i>Current Trends in Lubrication.</i> ( <i>S.A.E. Journal</i> , Vol. 51, No. 12, December, 1943, p. 431.)
438	19474 U.S.A. ...	<i>Laboratory Testing of Heavy Motor Oils (Excerpts from S.A.E. Paper).</i> (H. L. Moir and others, <i>S.A.E. Journal</i> , Vol. 51, No. 12, December, 1943, p. 456.)
439	19842 U.S.A. ...	<i>U.S. Oil Shortage (Figures).</i> ( <i>Mechanical Engineering</i> , Vol. 66, No. 1, Jan., 1944, p. 69.)



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>THEORY OF ELASTICITY</b>		
<b>(STRESSES IN PLATES AND COLUMNS, Etc.).</b>		
440	18529 U.S.A.	... <i>On the Strength of Highly Stressed Dynamically Loaded Bolts and Studs.</i> (J. O. Almen, S.A.E. Preprints, 10-14/1/44, pp. 1-11.)
441	18571 G.B.	... <i>The Strength of Gusset Plates in Compression.</i> (D. E. W. Aldous, Mechanical World, Vol. 114, No. 2,969, 26/11/43, pp. 618-619.)
442	18802 G.B.	... <i>The Simple Trussed Beam (Correspondence).</i> (Engineering, Vol. 157, No. 4,070, 14/1/44, p. 34.)
443	18888 U.S.A.	... <i>Deformation Under Load of Rigid Plastics.</i> (R. Burns, Modern Plastics, Vol. 21, No. 1, Sept., 1943, pp. 111-112.)
444	18955 G.B.	... <i>Some Boundary Problems of Two-Dimensional Elasticity (Replacement of Airy Stress Function by Complex Potentials).</i> (A. C. Stevenson, Philosophical Magazine, Vol. 34, No. 238, November, 1943, pp. 766-793.)
445	19552 G.B.	... <i>Stresses Due to Combination of Bending and Twisting.</i> (W. A. Taplin, Mechanical World, Vol. 115, No. 2,978, 28/1/44, pp. 85-87.)
446	19575 U.S.A.	... <i>Deflection of Uniformly Loaded Circular Plates.</i> (F. C. W. Olson, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A181-A182.)
447	19577 U.S.A.	... <i>Increase of Stress with Permanent Strain and Stress-Strain Relations in the Plastic State for Copper Under Combined Stresses.</i> (E. A. Davis, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A187-A196.)
448	19579 U.S.A.	... <i>Failure from Creep as Influenced by the State of Stress.</i> (W. Siegfried, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A202-A212.)
449	19580 U.S.A.	... <i>Static and Dynamic Spring Constants (Study of Vibrations of a Shaft System).</i> (G. Horvay and J. Ormondroyd, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A213-A219.)
450	19581 U.S.A.	... <i>The Appropriate Lumped Constants of Vibrations Shaft Systems.</i> (G. Horvay and J. Ormondroyd, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A220-A224.)
451	19582 U.S.A.	... <i>Balancing of Rotating Apparatus—I.</i> (R. P. Kroon, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A225-A228.)
452	19583 U.S.A.	... <i>Deflections and Moments for Rectangular Plates with Hydrostatic Loading.</i> (D. Young, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A229-A231.)
453	19584 U.S.A.	... <i>Long Continuous Columns (Discussion).</i> (F. G. Switzer, Journal of Applied Mechanics, Vol. 10, December, 1943, pp. A232-A233.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
454	19585 U.S.A.	... <i>Stresses and Displacements in a Rotating Conical Shell (Discussion)</i> . (J. L. Meriam, <i>Journal of Applied Mechanics</i> , Vol. 10, No. 4, December, 1943, pp. A233-A234.)
455	19586 U.S.A.	... <i>Harmonic Analysis of a Hooke's Joint Motion (Discussion)</i> . (F. A. Hirsch, <i>Journal of Applied Mechanics</i> , Vol. 10, No. 4, December, 1943, pp. A234-A235.)
456	19587 U.S.A.	... <i>The Centre of Shear (Discussion)</i> . (W. R. Osgood, <i>Journal of Applied Mechanics</i> , Vol. 10, No. 4, December, 1943, pp. A235-A236.)
457	19663 Germany	... <i>Fatigue Testing Machine with Combined Bending and Torsion Load (Stresses in Phase)</i> . ( <i>Z.V.D.I.</i> , Vol. 87, Nos. 5-6, 6/2/43, p. 82.)
458	19726 Switzerland	... <i>Stress Concentration in Old Riveted Joints Under Load</i> . (R.T.P. Translation.) (M. Koenig, <i>J. Roy. Aeronaut. Soc.</i> , Vol. 48, No. 398, Feb., 1944, pp. 31-44.)
459	19757 G.B.	... <i>Strength of Shafts—Effect of Transverse Holes, Splines and Shoulders on Torsional Fatigue</i> . ( <i>Automobile Engineer</i> , Feb., 1944, p. 68.)
460	19982 G.B.	... <i>Bibliography on Residual Stress (Nov., 1942)</i> . (The Institute of Welding, pp. 1-6.)

### MATERIALS

#### (PROPERTIES, FABRICATION, INSPECTION).

##### A. Properties.

##### Al. and Mg. Alloys.

461	18935 U.S.A.	... <i>Considerations Regarding the Post-War Utilisation of Aluminium and Magnesium</i> . (L. W. Kempf, <i>S.A.E. Preprints</i> , 10-14/1/44, pp. 1-5.)
462	18966 U.S.A.	... <i>Aluminium in War</i> . (F. C. Frary, <i>Industrial Engineering and Chemistry (News Edition)</i> , 10/12/43, Vol. 21, No. 23, pp. 2018-2019, 2042.)
463	18967 U.S.A.	... <i>A Post-War Contest (Review of the Relative Merits of Steel, Light Alloys and Plastics and the Economic Factors Involved)</i> . (J. M. Weiss, <i>Industrial Engineering and Chemistry (News Edition)</i> , Vol. 21, No. 23, 10/12/43, pp. 2020-2021.)
464	19065 G.B.	... <i>Wrought Aluminium Alloys in Post-War Building</i> . (E. G. West, <i>Light Metals</i> , Vol. 7, No. 72, January, 1944, pp. 11-19.)
465	19228 G.B.	... <i>Making Magnesium—Distillation in Electrically-Heated Retorts</i> . ( <i>Electrical Review</i> , Vol. 134, No. 3,452, 21/1/44, pp. 77-81.)
466	19482 G.B.	... <i>Light Aluminium Alloys—Future Prospects in Post-War Britain</i> . (E. C. Goldsworthy, <i>Metal Industry</i> , Vol. 64, No. 5, 4/2/44, pp. 66-69.)
467	19485 G.B.	... <i>Magnesium Alloy for Use in Pistons (U.S. Patent)</i> . ( <i>Metal Industry</i> , Vol. 64, No. 5, 4/2/44, p. 73.)
468	19558 G.B.	... <i>Aluminium Paint</i> . ( <i>Mechanical World</i> , Vol. 115, No. 2,978, 28/1/44, p. 103.)

- | ITEM NO.                   | R.T.P. REF.      | TITLE AND JOURNAL.   |
|----------------------------|------------------|--|
| 469                        | 19722 G.B. ...   | <i>Aluminium-Silicon Casting Alloys—The Effect of Minor Alloying Elements.</i> (W. Bonsack, <i>Metal Industry</i> , Vol. 64, No. 6, 11/2/44, pp. 82-84.)   |
| <b>Iron and Steel.</b>     |                  |  |
| 470                        | 18763 G.B. ...   | <i>The Spanish Iron and Steel Industry.</i> (Engineering, Vol. 157, No. 4,069, 7/1/44, pp. 16-17.)   |
| 471                        | 18764 G.B. ...   | <i>The Structure of Ingot Iron Containing Lead.</i> (L. Northcott and D. McLean, <i>Engineering</i> , Vol. 157, No. 4,069, 7/1/44, pp. 18-20.)   |
| 472                        | 19074 G.B. ...   | <i>The Spanish Iron and Steel Industry.</i> (Nature, Vol. 152, No. 3,869, 25/12/43, pp. 755-756.)  |
| 473                        | 19217 G.B. ...   | <i>Ferro-Silicon Production (Use of Large Smelting Arc Furnaces).</i> (Electrical Review, Vol. 133 No. 3,450, 7/1/44, pp. 3-8.)  |
| 474                        | 19225 G.B. ...   | <i>Cast Iron—its Functions in Electrical Engineering.</i> (Electrical Review, Vol. 134, No. 3,451, 14/1/44, pp. 63-64.)  |
| 475                        | 19344 U.S.A. ... | <i>Structure and Creep Characteristics of Cast Carbon-Molybdenum Steel at 950°F.</i> (H. E. Montgomery and J. Urban, <i>A.S.T.M. Bulletin</i> , No. 125, December, 1943, pp. 13-16.)             |
| 476                        | 19525 G.B. ...   | <i>High Manganese Stainless Steels.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 253-254.)   |
| 477                        | 19553 G.B. ...   | <i>Semi-Steel as an Engineering Material.</i> (Mechanical World, Vol. 115, No. 2,978, 28/1/44, pp. 87-88.)   |
| 478                        | 19699 U.S.A. ... | <i>Galvanized Steel as a Power Conductor (Abstract).</i> (Journal of the Franklin Institute, Vol. 235, No. 1, Jan., 1943, p. 26.)  |
| 479                        | 19759 G.B. ...   | <i>Nitrolloy Steels (Applications).</i> (Automobile Engineer, Feb., 1944, pp. 71-72.)  |
| 480                        | 19830 G.B. ...   | <i>Miniature Soldering Iron.</i> (Electrical Times, Vol. 105, No. 2,728, 3/2/44, pp. 147-150.)   |
| 481                        | 19853 G.B. ...   | <i>Use of Cast Iron Rods to Repair Castings (Substitute for Bronze Welding).</i> (A. Havens, <i>Machinist</i> , Vol. 87, No. 40, 27/1/44, pp. 108-110.)  |
| 482                        | 19951 G.B. ...   | <i>Making Steel Specifications.</i> (H. Brearley, <i>The Engineer</i> , Vol. 177, No. 4,597, 18/2/44, pp. 126-128.)  |
| <b>Non-Ferrous Alloys.</b> |                  |  |
| 483                        | 18798 G.B. ...   | <i>Physical Properties of Red Brass—Effects of the Ambient Atmosphere During Melting.</i> (H. B. Gardner and others, <i>Metal Industry</i> , Vol. 64, No. 3, 21/1/44, pp. 41-42.)                |
| 484                        | 18916 U.S.A. ... | <i>Standard Coppers Chart.</i> (Aero Digest, Vol. 43, No. 5, November, 1943, p. 266.)  |
| 485                        | 19513 G.B. ...   | <i>The Nomenclature of Non-Ferrous Alloys.</i> (Engineering, Vol. 157, No. 4,073, 4/2/44, p. 93.)  |
| 486                        | 19543 U.S.A. ... | <i>Report on the Systems Lead Oxide-Alumina-Silica.</i> (R. F. Geller and E. N. Bunting, <i>Journal of Research National Bureau of Standards</i> , Vol. 31, No. 5, November, 1943, pp. 255-270.) |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
487	19590 U.S.A.	... <i>Creep and Relaxation of Oxygen-Free Copper (Discussion)</i> . (E. A. Davis, <i>Journal of Applied Mechanics</i> , Vol. 10, No. 4, December, 1943, p. A240.)
488	19678 Germany	... <i>Wrought Zinc Alloys of High Fatigue Strength</i> . (Z.V.D.I., Vol. 87, No. 51-52, 25/12/43, p. 87.)
489	19823 G.B.	... <i>Conservation of Copper in Electrical Equipment</i> . (O. I. Butler, <i>Electrician</i> , Vol. 132, No. 3,425, 21/1/44, pp. 52-55.)
490	19949 G.B.	... <i>The Future of Lead</i> . ( <i>Metal Industry</i> , Vol. 64, No. 7, 18/2/44, p. 97.)
<b>Plastics and Resins.</b>		
491	18742 U.S.A.	... <i>Resin Bonded Marine Bearings (Ryertex)</i> . ( <i>Modern Plastics</i> , Vol. 21, No. 3, November, 1943, pp. 78-79.)
492	18743 U.S.A.	... <i>Industrial Applications of Phenolic Resins</i> . ( <i>Modern Plastics</i> , Vol. 21, No. 3, November, 1943, pp. 84-88, 166.)
493	18748 U.S.A.	... <i>Plastic Housings for Tapping Attachments</i> . ( <i>Modern Plastics</i> , Vol. 21, No. 3, November, 1943, pp. 110-112.)
494	18787 G.B.	... <i>The Plastics Industry in 1943 (Review by Some of its Leaders)</i> . ( <i>British Plastics</i> , Vol. 16, No. 176, January, 1944, pp. 3-12.)
495	18789 G.B.	... <i>The Plastics Industry—The Trend of the Future</i> . (Sir Herbert Morgan, <i>British Plastics</i> , Vol. 16, No. 176, January, 1944, p. 27.)
496	18790 G.B.	... <i>Built-in Characteristics of Colour in Plastics</i> . ( <i>British Plastics</i> , Vol. 16, No. 176, January, 1944, p. 29.)
497	18792 G.B.	... "Plasticeramic"— <i>A New Insulating Material</i> . ( <i>British Plastics</i> , Vol. 16, No. 176, January, 1944, p. 34.)
498	18817 U.S.A.	... <i>Chlorohydrocarbon Solvents</i> . (E. W. McGovern, <i>Industrial and Engineering Chemistry</i> , Vol. 35, No. 12, December, 1943, pp. 1230-1239.)
499	18968 U.S.A.	... <i>Synthetic Resins Used in Pump Construction (German Practice)</i> . ( <i>Industrial and Engineering Chemistry (News Edition)</i> , Vol. 21, No. 23, 10/12/43, p. 2023.)
500	19077 G.B.	... <i>Steric Hindrance and Heats of Formation (Study of the Heats of Polymerization of Isobutene, Methyl Methacrylate, etc.)</i> . (A. G. Evans and N. Polanyi, <i>Nature</i> , Vol. 152, No. 3,869, 25/12/43, pp. 738-740.)
501	19488 G.B.	... <i>Plating Rack Insulation (Use of Synthetic Resin)</i> . ( <i>Metal Industry</i> , Vol. 64, No. 5, 4/2/44, p. 76.)
502	19548 U.S.A.	... <i>Synthetic Elastomer—Styradoy 22 (Developed by Dow for Electrical and Mechanical Applications)</i> . ( <i>Review of Scientific Instruments</i> , Vol. 14, No. 11, November, 1943, p. 343.)
503	19549 U.S.A.	... <i>Elastic Yarn (Made of Vinyon Vinyl Chloride-Acetate Resin)</i> . ( <i>Review of Scientific Instruments</i> , Vol. 14, No. 11, November, 1943, p. 343.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
504	19666 Germany	... <i>Pamplast, a New Plastic for Artificial Limbs.</i> (Z.V.D.I., Vol. 87, No. 5-6, 6/2/43, pp. 85-86.)
505	19711 G.B.	... <i>Expanded Plastics (Thermazote, Plastazote, etc.).</i> (Plastics, Vol. 8, No. 81, Feb., 1944, pp. 55-56.)
506	19712 G.B.	... <i>The Future Possibilities of Ethyl Cellulose.</i> (E. E. Halls, Plastics, Vol. 8, No. 81, Feb., 1944, pp. 57-64.)
507	19714 G.B.	... <i>Synthetic Resin Cement of Novel Properties.</i> (Plastics, Vol. 8, No. 81, Feb., 1944, p. 66.)
508	19715 G.B.	... <i>Translucent Skin of Ethyl Cellulose Plastic (for Protection of Machine Parts in Shipment).</i> (Plastics, Vol. 8, No. 81, Feb., 1944, p. 66.)
509	19716 G.B.	... <i>Classification of Plastic Materials on the Basis of Engineering Properties.</i> (Plastics, Vol. 8, No. 81, Feb., 1944, p. 67.)
510	19720 G.B.	... <i>Resinoids and Other Plastics as Film Formers. XXIII—Coating Media on Vinyl Acetate and Polyvinyl Alcohol Base.</i> (B. J. Brajnikoff, Plastics, Vol. 8, No. 81, Feb., 1944, pp. 90-96.)
511	19734 Germany	... <i>The Technique of Lining Tanks Made of Wood Match or Concrete with Vinidue Plastic.</i> (Kunststoffe, Vol. 32, No. 2, Feb., 1943, pp. 33-39.) (Miscellaneous.)
512	19933 G.B.	... <i>Plastics and Their Place in Post-War Building.</i> (H. H. Lusty, British Plastics, Vol. 16, No. 177, Feb., 1944, pp. 55-60.)
513	19934 G.B.	... <i>A German Plastics Lantern.</i> (British Plastics, Vol. 16, No. 177, Feb., 1944, pp. 61-62.)
514	19936 G.B.	... <i>Nylon as a Thermo-Plastic.</i> (British Plastics, Vol. 16, No. 177, Feb., 1944, p. 65.)
515	19938 G.B.	... <i>Plastics in Rainwear.</i> (British Plastics, Vol. 16, No. 177, Feb., 1944, p. 67.)
516	19939 G.B.	... <i>Polyvinyl Alcohol. Part II—Its Chemistry and Applications.</i> (I. Jones, British Plastics, Vol. 16, No. 177, Feb., 1944, pp. 77-83.)
517	19940 G.B.	... <i>A Survey of Plastics—Part II (from the Viewpoint of the Mechanical Engineer).</i> (S. L. Smith, British Plastics, Vol. 16, No. 177, Feb., 1944, pp. 84-90.)
518	19957 India	... <i>Physical Chemistry of Resin Solutions. Part VII—Viscosity Studies in Mixed Solvents with Some Resins and Cellulose Derivatives (Bulletin No. 53).</i> (S. R. Palit, India Lac Research Institute, 1943, pp. 1-10.)
519	19958 India	... <i>Physical Chemistry of Resin Solutions. Part VI—On the Relationship Between Precipitation and Gelation of Resins (Bulletin No. 52).</i> (S. R. Palit, Indian Lac Research Institute, 1943, pp. 1-5.)

#### Rubber (Nat. and Syn.).

520	19532 U.S.A.	... <i>The General Purpose Synthetic Rubbers in the Automotive Industry.</i> (A. H. Somerville and R. T. Vanderbilt, S.A.E. Preprints, 10-14/1/44, pp. 1-13.)
-----	--------------	---

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
521	18744 U.S.A.	... <i>Replacements for Rubber Coated Fabrics.</i> (Modern Plastics, Vol. 21, No. 3, November, 1943, pp. 89-91, 164.)
522	18814 G.B. ...	... <i>British Rubber Federation Report (Review of Development Work).</i> (Engineering, Vol. 157, No. 4,070, 14/1/44, p. 33.)
523	18818 U.S.A.	... <i>Flex Life and Crystallization of Synthetic Rubber.</i> (J. H. Fielding, Industrial and Engineering Chemistry, Vol. 35, No. 12, December, 1943, pp. 1259-1261.)
524	18941 G.B. ...	... <i>Rubbaglex Sheetting (Suitable for Making Washers, Gaskets, etc.).</i> (The Petroleum Times, Vol. 47, No. 1,210, 11/12/43, p. 693.)
525	19070 G.B. ...	... <i>Production of Rubber in Europe.</i> (Nature, Vol. 152, No. 3,869, 25/12/43, p. 747.)
526	19530 G.B. ...	... <i>Chlorinated Rubber for Food Containers.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, p. 270.)
527	19701 U.S.A.	... <i>Ameripol—Synthetic Rubber Developed by U.S. Scientists (Abstract).</i> (C. C. Pryor, Journal of the Franklin Institute, Vol. 235, No. 1, Jan., 1943, p. 82.)
528	19841 U.S.A.	... <i>Synthetic Rubber Figures.</i> (Mechanical Engineering, Vol. 66, No. 1, Jan., 1944, pp. 67-68.)
529	19846 G.B. ...	... <i>Preventing Rubber Adhesion Under Pressure ("Tyreprim" Coating).</i> (Machinist, Vol. 87, No. 40, 27/1/44, pp. 251E-252E.)

#### Woods, Glues, Paper.

530	18751 U.S.A.	... <i>Resin Impregnation of Wood.</i> (R. Casselman, Modern Plastics, Vol. 21, No. 3, November, 1943, pp. 124-126, 168.)
531	18970 U.S.A.	... <i>Weatherproof Paper Board.</i> (Industrial and Engineering Chemistry (News Edition), 10/12/43, Vol. 21, No. 23, p. 2051.)
532	18971 U.S.A.	... <i>Plastic Hard Wood.</i> (Industrial and Engineering Chemistry (News Edition), 10/12/43, Vol. 21, No. 23, p. 2051.)
533	18997 G.B. ...	... <i>The Coming of Plywood (a Revolution in the Utilisation of Timber).</i> (Nature, Vol. 152, No. 3,866, 4/12/43, pp. 651-653.)
534	19075 G.B. ...	... <i>Utilisation of Bamboos in India.</i> (Nature, Vol. 152, No. 3,869, 25/12/43, pp. 756-757.)
535	19202 G.B. ...	... <i>New Woods for Old (Review of Improved or Resin Bonded Plywood).</i> (J. S. Trevor, Aeronautics, Vol. 9, No. 5, Dec., 1943, p. 56.)
536	19295 G.B. ...	... <i>High Duty Woods.</i> (J. S. Trevor, Aeronautics, Vol. 9, No. 6, January, 1944, p. 32.)
537	19415 G.B. ...	... <i>Products from Wood Pulp—Wartime Developments in Sweden.</i> (Mechanical World, Vol. 116, No. 2,977, 21/1/44, p. 64.)
538	19900 Germany	... <i>Rapid Identification of Type of Glue Used in Plywood.</i> (Flugsport, Vol. 35, No. 15, 17/11/43, p. 240.)

- | ITEM NO.                          | R.T.P. REF.      | TITLE AND JOURNAL.   |
|-----------------------------------|------------------|--|
| 539                               | 19932 G.B. ...   | ... <i>A New Glueing Process—Part I.</i> (W. Gallay and G. G. Graham, <i>British Plastics</i> , Vol. 16, No. 177, Feb., 1944, pp. 50-54.)                                |
| <b>Glass, Diamonds.</b>           |                  |  |
| 540                               | 18679 U.S.A. ... | ... <i>Glass Fibres—a New Engineering Material (Digest).</i> (Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 353-355.)   |
| 541                               | 18785 G.B. ...   | ... <i>Diamond (Study of its Properties, Industrial Applications, etc.).</i> (Sir Robert Robertson, <i>Chemistry and Industry</i> , Vol. 63, No. 3, 15/1/44, pp. 18-24.) |
| 542                               | 19286 G.B. ...   | ... <i>New Uses for Glass.</i> (H. Seymour, <i>Electrician</i> , Vol. 132, No. 3,423, 7/1/44, p. 13.)  |
| 543                               | 19410 G.B. ...   | ... <i>Fibrous Glass Electrical Insulation.</i> ( <i>Machinery</i> , Vol. 64, No. 1,632, 20/1/44, p. 82.)  |
| 544                               | 19460 U.S.A. ... | ... <i>Mechanical Properties of Plexiglas (Data Sheets).</i> ( <i>Aviation</i> , Vol. 42, No. 11, November, 1943, pp. 183-185.)  |
| 545                               | 19833 G.B. ...   | ... <i>New Method of Setting Shaped Diamond Tools.</i> ( <i>Machinery</i> , Vol. 64, No. 1,634, 3/2/44, p. 124.)   |
| <b>Asbestos, Cement, Crayons.</b> |                  |  |
| 546                               | 18752 G.B. ...   | ... <i>Asbestos Cement.</i> (Science Library Bibliographical Series No. 599, 1943.)  |
| 547                               | 18972 U.S.A. ... | ... <i>Sound-Deadening Material Made of Asbestos.</i> ( <i>Industrial and Engineering Chemistry (News Edition)</i> , 10/12/43, Vol. 21, No. 23, p. 2051.)                |
| 548                               | 19487 G.B. ...   | ... <i>Temperature—Indicating Crayons.</i> ( <i>Metal Industry</i> , Vol. 64, No. 5, 4/2/44, p. 76.)   |
| 549                               | 19550 U.S.A. ... | ... <i>A New Photographic Lens Cement (for Aerial Cameras).</i> (Review of Scientific Instruments, Vol. 14, No. 11, November, 1943, p. 344.)                             |
| 550                               | 19755 G.B. ...   | ... <i>Cemented Carbides—Recent German Practice in the Design of Hard Metal Tools.</i> (M. Littman, <i>Automobile Engineer</i> , Feb., 1944, pp. 59-62.)                 |
| <b>Ceramics, Silver.</b>          |                  |  |
| 551                               | 19235 G.B. ...   | ... <i>Ceramics.</i> (A. G. Arend, <i>Electrician</i> , Vol. 131, No. 3,422, 31/12/43, p. 650.)  |
| 552                               | 19246 G.B. ...   | ... <i>Silver for Electrical Purposes.</i> (R. A. Collacott, <i>Electrical Times</i> , Vol. 105, No. 2,725, 13/1/44, pp. 42-44.)   |
| 553                               | 19251 G.B. ...   | ... <i>Choice of Ceramics for Electrical Purposes.</i> ( <i>Electrical Times</i> , Vol. 105, No. 2,726, 20/1/44, pp. 72-74.)   |
| 554                               | 19742 G.B. ...   | ... <i>Ceramics for High-Frequency Insulation.</i> ( <i>Nature</i> , Vol. 152, No. 3,859, 16/10/43, pp. 453-454.)  |
| <b>B. Fabrication.</b>            |                  |  |
| <b>Welding and Riveting.</b>      |                  |  |
| 555                               | 18631 G.B. ...   | ... <i>Gas Welding of Aluminium (B.S. 1,126).</i> ( <i>Metal Industry</i> , Vol. 64, No. 2, 14/1/44, p. 24.)   |
| 556                               | 18808 G.B. ...   | ... <i>Electric Welding in Shipbuilding (H.M.S.O. Publication).</i> ( <i>Engineering</i> , Vol. 157, No. 4,070, 14/1/44, p. 24.)   |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
557	19252 G.B. ...	... <i>New Light Alloy Spot Welders.</i> (Electrical Times, Vol. 105, No. 2,726, 20/1/44, pp. 76-77.)
558	19291 G.B. ...	... <i>The Application of Scientific Welding.</i> (C. W. Brett, Civil Engineering, Vol. 38, No. 450, Jan., 1944, pp. 279-280.)
559	19407 G.B. ...	... <i>Difference Between Ordinary and Atomic Hydrogen Arc Welding.</i> (Machinery, Vol. 64, No. 1,632, 20/1/44, p. 74.)
560	19483 G.B. ...	... <i>Welding of Copper and its Alloys (Recommended Technique for Low Copper-Zinc Alloys and Bronzes).</i> (J. J. Vreeland, Metal Industry, Vol. 64, No. 5, 4/2/44, p. 70.)
561	19501 G.B. ...	... <i>Light Alloy Welder.</i> (Electrical Review, Vol. 134, No. 3,453, 28/1/44, pp. 119-130.)
562	19655 G.B. ...	... <i>Diamond Lock Riveting.</i> (Production and Engineering Bulletin, Vol. 2, No. 12, November, 1943, pp. 567-569.)
563	19676 Germany ...	... <i>Weld Current Resistance Control when Operating Several Arcs in Parallel.</i> (Z.V.D.I., Vol. 87, No. 51-52, 25/12/43, pp. 815-816.)
564	19682 Germany ...	... <i>Low Temperature Cooling of Spot Welding Electrodes (-18°C.).</i> (Z.V.D.I., Vol. 87, No. 51-52, 25/12/43, p. 819.)
565	19808 U.S.A. ...	... <i>Transition from Riveted to Welded Tank Construction.</i> (W. Osha, Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 120-122.)
566	19822 G.B. ...	... <i>Light Alloy Spot Welder (Philips).</i> (Electrician, Vol. 132, No. 3,425, 21/1/44, pp. 51-52.)
567	19847 G.B. ...	... <i>How to Use Resistance Welding.</i> (R. T. Gillett and J. F. Young, Machinist, Vol. 87, No. 40, 27/1/44, pp. 91-93.)
568	19848 G.B. ...	... <i>Tools and Methods Used in Aluminium Riveting (Photos).</i> (Machinist, Vol. 87, No. 40, 27/1/44, pp. 94-97.)
569	19857 U.S.A. ...	... <i>Pipe Bevels Flame-Cut Automatically (Preparatory to Butt Welding).</i> (Machinist, Vol. 87, No. 40, 27/1/44, pp. 114-115.)
570	19898 Germany ...	... <i>Butt Welding Plexiglass.</i> (Flugsport, Vol. 35, No. 15, 17/11/43, pp. 226-227.)
571	19959 G.B. ...	... <i>Bibliography on Resistance Welding Electrodes (March, 1943).</i> (The Institute of Welding, pp. 1-2.)
572	19964 G.B. ...	... <i>Bibliography on Welded Ships (Sept., 1943).</i> (The Institute of Welding, pp. 1-31.)
573	19965 G.B. ...	... <i>Bibliography on Butt and Flash Butt Resistance Welding (June, 1942).</i> (The Institute of Welding, pp. 1-4.)
574	19966 G.B. ...	... <i>Bibliography on Unionmelt: An Automatic Arc Welding Process (Aug., 1942).</i> (The Institute of Welding, pp. 1-2.)
575	19968 G.B. ...	... <i>Bibliography on Under Water Welding and Under Water Cutting (Feb., 1943).</i> (The Institute of Welding, pp. 1-3.)



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
576	19969 G.B. ...	... <i>Bibliography on the Resistance Welding of Light Alloys</i> (Feb., 1943). (The Institute of Welding, pp. 1-12.)
577	19971 G.B. ...	... <i>Bibliography on Carbon Arc Welding</i> (Nov., 1942). (The Institute of Welding, pp. 1-2.)
578	19972 G.B. ...	... <i>Bibliography on Welding Construction versus Castings</i> (Feb., 1943). (The Institute of Welding, pp. 1-2.)
579	19976 G.B. ...	... <i>Bibliography on Bronze Welding</i> (Dec., 1942). (The Institute of Welding, pp. 1-4.)
580	19977 G.B. ...	... <i>Bibliography on Surfacing (by Welding)</i> . (The Institute of Welding, pp. 1-4.)
581	19978 G.B. ...	... <i>Bibliography on the Welding of Cast Iron</i> (Aug., 1943). (The Institute of Welding, pp. 1-4.)
582	19979 G.B. ...	... <i>Bibliography on Automatic Arc Welding</i> (Nov., 1941). (The Institute of Welding, pp. 1-3.)
583	19980 G.B. ...	... <i>Bibliography on Atomic Hydrogen Welding</i> (July, 1942). (The Institute of Welding, pp. 1-2.)
584	19981 G.B. ...	... <i>Bibliography on Thermit Welding</i> (Aug., 1942). (The Institute of Welding, pp. 1-2.)
585	19984 G.B. ...	... <i>Publications of the Institute of Welding</i> . (The Institute of Welding, pp. 1-6.)
586	19985 G.B. ...	... <i>Recrystallisation Welding of Aluminium and its Alloys: A Review of Literature to June, 1941</i> . (J. B. Wilson, The Institute of Welding, pp. 1-7.)

#### Soldering and Brazing.

587	19357 G.B. ...	... <i>Electronic Device for Soldering</i> . (Mechanical World, Vol. 115, No. 2,976, 14/1/44.)
588	19541 G.B. ...	... <i>Low Temperature Brazing</i> . (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, p. 330.)
589	19852 G.B. ...	... <i>Carbide Tools Tipped by Induction Brazing</i> , (P. Miller, Machinist, Vol. 87, No. 40, 27/1/44, p. 106.)
590	19960 G.B. ...	... <i>Bibliography on Brazing</i> (Aug., 1942). (The Institute of Welding, pp. 1-3.)

#### Plating and Spraying.

591	18799 G.B. ...	... <i>Plating Fine Wire with Nickel</i> . (J. H. Conolly and R. Rimbach, Metal Industry, Vol. 64, No. 3, 21/1/44, pp. 43-44.)
592	18800 G.B. ...	... <i>Porous Chromium Plating</i> . (Metal Industry, Vol. 64, No. 3, 21/1/44, p. 44.)
593	18801 Germany ...	... <i>Improving Metallic Surfaces Through Diffusion (Hard Layers on Light Alloy Materials)</i> . (Abstract of Paper in Zeitschrift für Elektrochemie.) (H. Vossküeler, Metal Industry, Vol. 64, No. 3, 21/1/44, p. 44.)
594	18917 U.S.A. ...	... <i>Recovery of Paint Overspray</i> . (S. D. Perlman, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 269, 280.)
595	19212 G.B. ...	... <i>Electrolytic Tinplate</i> . (Electrical Review, Vol. 133, No. 3,448, 24/12/43, pp. 835-837.)

- | ITEM NO.                     | R.T.P. REF.       | TITLE AND JOURNAL.   |
|------------------------------|-------------------|--|
| 596                          | 19529 G.B. ...    | ... <i>Canning Practice and Experiences with Electrolytic Tinplate.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 267-269.)   |
| 597                          | 19486 G.B. ...    | ... <i>Hard Chromium Plating (Discussion).</i> (Metal Industry, Vol. 64, No. 5, 4/2/44, pp. 74-76.)  |
| 598                          | 19524 G.B. ...    | ... <i>Electroplating of Steel Strip.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, p. 252.)  |
| 599                          | 19681 Germany ... | ... <i>Insulation of Soft Iron Transformer Strips by Phosphatising.</i> (Z.V.D.I., Vol. 87, Nos. 51-52, 25/12/43, p. 819.)   |
| 600                          | 19863 Canada ...  | ... <i>Galvanizing Spray (Coating of "Galvweld" Metal).</i> (Canadian Aviation, Vol. 16, No. 12, Dec., 1943, pp. 144-146.)   |
| <b>Moulding and Casting.</b> |                   |  |
| 601                          | 18628 G.B. ...    | ... <i>Gravity Die-Casting.</i> (E. H. A. Carlton, Metal Industry, Vol. 64, No. 2, 14/1/44, pp. 18-21.)  |
| 602                          | 18747 U.S.A. ...  | ... <i>New Application of Heatronic Moulding (Application to Phenolic Materials).</i> (Modern Plastics, Vol. 21, No. 3, November, 1943, pp. 106-107.)  |
| 603                          | 18749 U.S.A. ...  | ... <i>Injection Moulding of Nylon.</i> (R. B. Akin and J. E. Teagarden, Modern Plastics, Vol. 21, No. 3, November, 1943, pp. 115-120, 166.)   |
| 604                          | 18762 G.B. ...    | ... <i>The Use of Wood Dust in Moulding Sand.</i> (Engineering, Vol. 157, No. 4,069, 7/1/44, p. 16.)   |
| 605                          | 19242 G.B. ...    | ... <i>High Frequency Preheating in Moulding Plastics.</i> (Electrical Times, Vol. 104, No. 2,722, 23/12/43, pp. 743-744.)   |
| 606                          | 19274 G.B. ...    | ... <i>Electrical Mouldings—Possibilities and Limitations of Plastics as Applied to the Electrical Industry.</i> (Electrical Review, Vol. 133, No. 3,444, 26/11/43, pp. 699-703.)                        |
| 607                          | 19311 G.B. ...    | ... <i>Developments in Hard Metal Dies and Bushes.</i> (E. J. Swinn, Machinery, Vol. 63, No. 1,611, 26/8/43, pp. 229-230.)   |
| 608                          | 19315 G.B. ...    | ... <i>Die Casting (Sprues, Runners and Gates of Die Casting Dies).</i> (H. K. Barton, Machinery, Vol. 63, No. 1,611, 26/8/43, pp. 246-248.)   |
| 609                          | 19414 G.B. ...    | ... <i>Preheating for Plastic Moulding (Use of Electronic Equipment).</i> (Mechanical World, Vol. 116, No. 2,977, 21/1/44, p. 63.)   |
| 610                          | 19556 Germany ... | ... <i>A New Method of Casting Steel Ingots or Blocks (Results of Some German Research).</i> (Z.V.D.I., Vol. 86, 1942, p. 414.) (P. F. Erichsen, Mechanical World, Vol. 115, No. 2,978, 28/1/44, p. 95.) |
| 611                          | 19573 G.B. ...    | ... <i>Clipping and Broaching Operations on Die Castings.</i> (Machinery, Vol. 64, No. 1,633, 27/1/44, pp. 106-108.)   |
| 612                          | 19574 G.B. ...    | ... <i>Zinc Alloy Pressure Die Castings for Service Application.</i> (Machinery, Vol. 64, No. 1,633, 27/1/44, p. 106.)   |
| 613                          | 19670 Germany ... | ... <i>The Design of Plastic Press Mouldings.</i> (H. Gerol, Z.V.D.I., Vol. 87, No. 51-52, 25/12/43, pp. 797-802.)   |

- | ITEM NO.               | R.T.P. REF.      | TITLE AND JOURNAL.  |
|------------------------|------------------|---|
| 614                    | 19937 G.B. ...   | <i>Jet Moulding (Substituting a Jet Nozzle for an Injection Moulding Nozzle)</i> . (D. M. Buchanan, <i>British Plastics</i> , Vol. 16, No. 177, Feb., 1944, pp. 66-67.)                         |
| <b>Heat Treatment.</b> |                  |   |
| 615                    | 18788 G.B. ...   | <i>High Frequency Preheating—A New Process of Moulding Plastics</i> . (G. Dring, <i>British Plastics</i> , Vol. 16, No. 176, January, 1944, pp. 13-26.)   |
| 616                    | 18796 G.B. ...   | <i>Melting Non-Ferrous Metals (Practical Hints on Furnaces, Deoxidisers and Fluxes, Melting Copper and Bronzes)</i> . (J. J. Hall, <i>Metal Industry</i> , Vol. 64, No. 3, 21/1/44, pp. 38-40.) |
| 617                    | 19003 G.B. ...   | <i>Light Alloy Foundry Technique (Manufacture and Use of Metals, Patterns, Cores and Moulds)</i> . ( <i>Aircraft Production</i> , Vol. 6, No. 64, Feb., 1944, pp. 55-58.)                       |
| 618                    | 19244 G.B. ...   | <i>High Frequency Heating of Laminated Materials</i> . (A. E. L. Jervis, <i>Electrical Times</i> , Vol. 105, No. 2,725, 13/1/44, pp. 36-38.)  |
| 619                    | 19416 G.B. ...   | <i>Selecting the Heat Treatment for Gears</i> . ( <i>Mechanical World</i> , Vol. 116, No. 2,977, 21/1/44, pp. 65-67.)   |
| 620                    | 19542 G.B. ...   | <i>Hardening and Tempering Flat Springs</i> . ( <i>Sheet Metal Industries</i> , Vol. 19, No. 202, February, 1944, p. 318.)  |
| 621                    | 19567 G.B. ...   | <i>Secondary Hardening of High Speed Steel Cutting Tools</i> . (J. Garland, <i>Machinery</i> , Vol. 64, No. 1,633, 27/1/44, pp. 91-94.)   |
| 622                    | 19725 G.B. ...   | <i>Magnesium Foundry Sand (Practice of American Magnesium Corporation)</i> . (M. E. Gautz, <i>Metal Industry</i> , Vol. 64, No. 6, 11/2/44, p. 91.)   |
| 623                    | 19850 G.B. ...   | <i>Selection of Recirculating Furnaces</i> . (J. Wallerius, <i>Machinist</i> , Vol. 87, No. 40, 27/1/44, pp. 101-104.)  |
| 624                    | 19851 G.B. ...   | <i>Device for Quick Quenching of Aluminium Parts</i> . ( <i>Machinist</i> , Vol. 87, No. 40, 27/1/44, p. 105.)  |
| <b>Surface Finish.</b> |                  |   |
| 625                    | 18523 G.B. ...   | <i>Machining and Finishing of Tenite</i> . ( <i>Plastics</i> , Vol. 8, No. 80, Jan., 1944, p. 39.)  |
| 626                    | 18797 G.B. ...   | <i>Metallographic Polishing Process</i> . ( <i>Metal Industry</i> , Vol. 64, No. 3, 21/1/44, p. 40.)  |
| 627                    | 19591 U.S.A. ... | <i>Surface Finish (Report of the Research Department of the Institution of Production Engineers)</i> . (G. Schlesinger, <i>Surface Finish</i> Published by A.S.M.E., January, 1943, pp. 1-231.) |
| 628                    | 19761 G.B. ...   | <i>Surface Finish—Review of the Various Processes, including Measurement</i> . (W. E. R. Clay, <i>Automobile Engineer</i> , Feb., 1944, pp. 73-78.)   |
| 629                    | 19815 G.B. ...   | <i>The Production of Surface Finish</i> . (J. L. Hepworth, <i>J. Inst. Prod. Eng.</i> , Vol. 23, No. 1, Jan., 1944, pp. 1-34.)  |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Grinding, Milling, Cutting, etc.</b>		
630	18630 G.B. ...	<i>The Control of Magnesium Dust—American Practice in Grinding, Polishing, Buffing, Filing and Sawing.</i> (Metal Industry, Vol. 64, No. 2, 14/1/44, pp. 22-24.)
631	19310 G.B. ...	<i>The Machining of Laminated Plastics (Drilling, Turning, Boring, Screw Cutting, etc.).</i> (Machinery, Vol. 63, No. 1,611, 26/8/43, pp. 225-227.)
632	19327 G.B. ...	<i>Securing Fine Surfaces by Grinding.</i> (H. J. Wills, Machinery, Vol. 63, No. 1,627, 16/12/43, pp. 690-691.)
633	19328 G.B. ...	<i>Perforating Fine Bronze Strip.</i> (Machinery, Vol. 63, No. 1,627, 16/12/43, pp. 688-689.)
634	19409 G.B. ...	<i>Bevel Grinding Glass Discs.</i> (Machinery, Vol. 64, No. 1,632, 20/1/44, pp. 75-76.)
635	19597 U.S.A. ...	<i>Tool-Room Milling—III.</i> (H. A. Frommett, Machinist, Vol. 87, No. 38, 8/1/44, pp. 84-85.)
636	19754 G.B. ...	<i>Friction Cutting.</i> (Automobile Engineer, Feb., 1944, p. 58.)
637	19762 G.B. ...	<i>Thread Milling—Recent Developments in Special Purpose Machines.</i> (Automobile Engineer, Feb., 1944, pp. 79-80.)
638	19849 G.B. ...	<i>Quenching Dies Minimise Gear Grinding.</i> (F. A. Paquin, Machinist, Vol. 87, No. 40, 27/1/44, pp. 98-100.)
639	19855 G.B. ...	<i>Refrigerated Oil Helps Grind Precision Threads.</i> (Machinist, Vol. 87, No. 40, 27/1/44, pp. 112-113.)

### Rolling, Drawing, Bending.

640	19528 G.B. ...	<i>Stress-Strain Measurements in the Drawing of Cylindrical Cups.</i> (E. L. Bartholomew, Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 265-266, 267.)
641	19588 U.S.A. ...	<i>The Distribution of Strains in the Rolling Process (Discussion).</i> (C. W. MacGregor and L. F. Coffin, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A236-A237.)
642	19596 U.S.A. ...	<i>Folds Eliminated when Bending Copper Tubes (Use of Fixtures).</i> (H. Hodges, Machinist, Vol. 87, No. 38, 8/1/44, pp. 80-82.)

### Machines and Tools.

643	18691 Switzerland ...	<i>Combined Torsion and Bending Fatigue Testing Machine (N.P.L. Type).</i> (Flugwehr und Technik, Vol. 5, No. 3, March, 1943, pp. 78-80.)
644	18700 Switzerland ...	<i>New Arnslar Fatigue Testing Machine (Combined Bending and Torsion).</i> (Flugwehr und Technik, Vol. 5, No. 3, March, 1943, pp. 78-80.)
645	18760 G.B. ...	<i>Centrifugal Quenching Machine.</i> (Engineering, Vol. 157, No. 4,069, 7/1/44, p. 7.)
646	18809 G.B. ...	<i>Hand-Operated Die Casting Machine.</i> (Engineering, Vol. 157, No. 4,070, 14/1/44, pp. 25-26.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
647	19313 G.B. ...	... <i>Increasing the Life of Cutting Tools Used in Machining High Alloy Steels by Chromium Plating.</i> (Machinery, Vol. 63, No. 1,611, 26/8/43, p. 236.)
648	19325 G.B. ...	... <i>Tool Holders for Cemented Carbide Bits.</i> (Machinery, Vol. 63, No. 1,627, 16/12/43, p. 679.)
649	19403 G.B. ...	... <i>Locating Device for the Machining of Small Thin Parts.</i> (Machinery, Vol. 64, No. 1,632, 20/1/44, p. 62.)
650	19404 G.B. ...	... <i>Using Machine Tools to Best Advantage.</i> (W. K. Bailey, Machinery, Vol. 64, No. 1,632, 20/1/44, pp. 65-68.)
651	19405 G.B. ...	... <i>Direct Current Adjustable Speed Drives for Machine Tools.</i> (G. A. Coldwell, Machinery, Vol. 64, No. 1,632, 20/1/44, pp. 69-72.)
652	19406 G.B. ...	... <i>Zinc Alloy Cast Jaws Facilitate Machining Operations (Kirksite A).</i> (Machinery, Vol. 64, No. 1,632, 20/1/44, pp. 73-74.)
653	19523 G.B. ...	... <i>Three-Roll Straightening Machine.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 251-252.)
654	19555 G.B. ...	... <i>Colour Control for Machine Tools (Murray System).</i> (A. J. T. Eyles, Mechanical World, Vol. 115, No. 2,978, 28/1/44, pp. 93-94.)
655	19563 Germany ...	... <i>Recent German Grinding Machine Practice.</i> (Z.V.D.I., Vol. 87, 1943, pp. 365-366.) (I. E. Reinecker, Mechanical World, Vol. 115, No. 2,979, 4/2/44, pp. 120-121.)
656	19570 G.B. ...	... <i>Simple Drilling Jig for Links.</i> (Machinery, Vol. 64, No. 1,633, 27/1/44, p. 98.)
657	19571 G.B. ...	... <i>Tool for Marking Out 60 deg. Segments.</i> (Machinery, Vol. 64, No. 1,633, 27/1/44, p. 100.)
658	19578 U.S.A. ...	... <i>On Cutting and Hobbing Gears and Worms.</i> (D. W. Dudley and H. Poritsky, Journal of Applied Mechanics, Vol. 10, No. 4, December, 1943, pp. A197-A201.)
659	19758 G.B. ...	... <i>Floating Reamers.</i> (Automobile Engineer, Feb., 1944, pp. 69-70.)

### C. Inspection.

#### Mechanical and Chemical Testing.

660	18695 Switzerland ...	... <i>Static Load Tests on Thin Metal Sheet (Digest).</i> (G. Everts, Flugwehr und Technik, Vol. 5, No. 3, March, 1943, p. 77.)
661	18756 G.B. ...	... <i>The Determination of Sodium in Aluminium and its Alloys.</i> (R. Smart, Journal of Society of the Chemical Industry, Vol. 62, No. 12, Dec., 1943, pp. 213-216.)
662	18757 G.B. ...	... <i>The Determination of Sodium in Aluminium Alloys by a Modified "Scheuer" Method, with Particular Reference to Alloys Containing Magnesium.</i> (G. H. Osborn, Journal of Society of the Chemical Industry, Vol. 62, No. 12, Dec., 1943, pp. 216-219.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
663	18991 Germany	... <i>Rapid Determination of the Magnesium Content of Al./Mg. Alloys.</i> (Z.V.D.I., Vol. 86, Nos. 35-36, 5/9/42, p. 558.)
664	19345 U.S.A.	... <i>Use of Photoelectric Spectrophotometric Techniques in Chemical Analysis.</i> (J. W. Stillman, A.S.T.M. Bulletin, No. 125, December, 1943, pp. 17-19.)
665	19668 Germany	... <i>Rapid Visual Identification of Austerite, Ferrite and Carbides in the Firm Structure of High Chromium Steels. (Etching of Section Followed by Annealing in Air at 500-700°C.)</i> (Z.V.D.I., Vol. 87, Nos. 5-6, 6/2/43, p. 87.)
666	19675 Germany	... <i>Testing the Weldability of Soft Steel Sheets.</i> (H. Cornelius, Z.V.D.I., Vol. 87, Nos. 51-52, 25/12/43, p. 815.)
667	19679 Germany	... <i>Determination of the Thermal Conductivity of Metals.</i> (Z.V.D.I., Vol. 87, Nos. 51-52, 25/12/43, pp. 817-818.)

#### X-Ray Analysis.

668	18906 U.S.A.	... <i>Scattered Radiation in Relation to X-Ray Inspection.</i> (R. Taylor, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 218-223, 292.)
669	19515 G.B.	... <i>X-Ray Research in Crystals.</i> (K. Lonsdale, Engineering, Vol. 157, No. 4,073, 4/2/44, pp. 95-96.)
670	19961 G.B.	... <i>Bibliography on the Testing of Welds by X-Rays.</i> (The Institute of Welding, April, 1942, pp. 1-5.)

#### Magnetic and Other Methods.

671	18750 U.S.A.	... <i>Photoelastic Detection of Strains in Injection Moulded Transparent Plastics.</i> (J. Delmonte and W. Dewar, Modern Plastics, Vol. 21, No. 3, November, 1943, pp. 121-123.)
672	18954 G.B.	... <i>Some Spectrophotometric Investigations on Iron Oxide containing Soda, Lime, Silican Glasses. Part I—The Influence of Concentration and Ferric Ferrous Dissociation.</i> (T. H. Wang and W. E. S. Turner, Philosophical Magazine, Vol. 34, No. 238, November, 1943, pp. 744-766.)
673	19245 G.B.	... <i>The Electron Microscope. Part II—Practical Application.</i> (E. H. Rayner, Electrical Times, Vol. 105, No. 2,725, 13/1/44, pp. 39-41.)
674	19967 G.B.	... <i>Bibliography on the Testing of Welds by Magnetic Methods.</i> (The Institute of Welding, Sept., 1942, pp. 1-2.)
675	19975 G.B.	... <i>Bibliography on Welding Inspection.</i> (The Institute of Welding, Feb., 1943, pp. 1-2.)
676	19987 Germany	... <i>The Influence of Supersonics on the Magnetic Behaviour of Nickel. III—Measurement with the Ferrograph Using Ni. Wire.</i> (G. Schmid and U. Jetter, Z. fur Elektrochemie, Vol. 48, No. 10, Oct., 1942, pp. 513-522.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Quality Control.</b>		
677	18563 G.B. ...	<i>Quality Control—the Application of Statistical Methods to Inspection Systems.</i> (Automobile Engineer, Vol. 34, No. 445, January, 1944, pp. 33-35.)
678	19227 G.B. ...	<i>Quality Control—the Human Factor.</i> (D. Williams, Electrical Review, Vol. 134, No. 3,452, 21/1/44, p. 76.)
679	19341 G.B. ...	<i>Inspection Efficiency (Extract from I.M.E. Paper).</i> (J. C. Edwards and W. A. Bennett, Machinery, Vol. 64, No. 1,631, 13/1/44, pp. 42-43.)
680	19408 G.B. ...	<i>A Quality Control Calculator.</i> (Machinery, Vol. 64, No. 1,632, 20/1/44, pp. 75-76.)
681	19683 G.B. ...	<i>Quality Control in Operation (Standard Control Limits).</i> (Production and Engineering Bulletin, Vol. 2, No. 13, December, 1943, pp. 577-582.)
682	19845 G.B. ...	<i>Inspection Efficiency—III.</i> (J. C. Edwards and W. A. Bennett, Machinist, Vol. 87, No. 40, 27/1/44, p. 251E.)

## INSTRUMENTS.

### Physical, Mechanical

683	18681 U.S.A. ...	<i>Measuring Mechanical Vibrations (Westinghouse Vibrograph).</i> (Engineers' Digest, Vol. 4, No. 12, Dec., 1943, p. 356.)
684	18699 Switzerland ...	<i>Periscope Sextant.</i> (Flugwehr und Technik, Vol. 5, No. 3, March, 1943, p. 83.)
685	18714 U.S.A. ...	<i>Moisture Indicator for Transport Packages.</i> (Flugwehr und Technik, Vol. 5, No. 7, July, 1943, p. 194.)
686	18786 G.B. ...	<i>A Simple Gasometric Apparatus for Estimation of Carbon Dioxide.</i> (T. A. Oxley, Chemistry and Industry, Vol. 63, No. 3, 15/1/44, pp. 24-25.)
687	18837 G.B. ...	<i>A Combined Hydrogen and Helium Liquifier (for Low Temperature Research).</i> (A. Schallamash, Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, pp. 195-196.)
688	18838 G.B. ...	<i>A Design for a Swinging Plate Anemometer.</i> (K. R. May, Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, pp. 196-197.)
689	19073 G.B. ...	<i>Reflecting Microscopes.</i> (C. R. Burch, Nature, Vol. 152, No. 3,869, 25/12/43, pp. 748-749.)
690	19546 U.S.A. ...	<i>The Interference Spherometer.</i> (E. Speyer, Review of Scientific Instruments, Vol. 14, No. 11, November, 1943, pp. 336-338.)
691	19664 Germany ...	<i>Instruments for Performance of Testing of Ships (Torque, Thrust, r.p.m., Log, Anemometer).</i> (Z.V.D.I., Vol. 87, Nos. 5-6, 6/2/43, pp. 83-84.)
692	19770 G.B. ...	<i>Wartime Specification for I.P. Petroleum Hydrometers.</i> (Journal of the Institute of Petroleum, Vol. 29, No. 240, Dec., 1943, pp. 1-4.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Photo-Electric, Electric.</b>		
693	18740 Switzerland ...	<i>Oximeter (Photoelectric Device for Determining Oxygen Want of Aircrew).</i> (Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, p. 302.)
694	18758 G.B. ...	<i>The Determination of Phosphorous in Iron and Steel by Means of the Spekkes Photoelectric Absorptiometer. An "Arsenic Free" Method.</i> (T. S. Harrison and W. Fisher, Journal of Society of the Chemical Industry, Vol. 62, No. 12, Dec., 1943, pp. 221-229.)
695	18835 G.B. ...	<i>A High Temperature X-Ray Analysis Camera.</i> (E. A. Owen, Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, pp. 190-192.)
696	18840 G.B. ...	<i>Toroidal Winding Machines (for Applying Wire or Tape, etc., on to Toroidal or Other Types of Cores).</i> (F. E. Planer, Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, pp. 185-189.)
697	18999 G.B. ...	<i>Recording Cathode Ray Oscillograph Traces.</i> (Nature, Vol. 152, No. 3,866, 4/12/43, pp. 656-657.)
698	19081 G.B. ...	<i>A New Type of Microphotometer.</i> (Nature, Vol. 153, No. 3,872, 15/1/44, pp. 81-82.)
699	19267 G.B. ...	<i>Clock for Short Time Intervals.</i> (Electrical Times, Vol. 104, No. 2,718, 25/11/43, p. 645.)
700	19547 U.S.A. ...	<i>An X-Ray Tube Using an Electron Gun.</i> (J. J. G. McCue, Review of Scientific Instruments, Vol. 14, No. 11, November, 1943, p. 339.)
<b>Electronic, Magnetic.</b>		
701	18836 G.B. ...	<i>Electronic Unit for Accurate Timing of Switching Operations in Rapid and Adjustable Sequence.</i> (F. O. Mason and K. Goldschmidt, Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, pp. 192-194.)
702	18896 U.S.A. ...	<i>The Pioneer Flux Gate Compass.</i> (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 152-157.)
703	19211 G.B. ...	<i>The Electron Microscope.</i> (E. H. Rayner, Electrical Review, Vol. 133, No. 3,447, 17/12/43, p. 832.)
704	19360 G.B. ...	<i>Electronic Stabiliser and Co-ordinate Potentiometer (I.E.E. Paper).</i> (Electrical Times, Vol. 105, No. 2,727, 27/1/44, pp. 106-108.)
705	19519 G.B. ...	<i>The Electron Microscope.</i> (G. Thomson, Endeavour, Vol. 2, No. 8, Oct., 1943, pp. 125-135.)
706	19545 U.S.A. ...	<i>Reciprocal Lorentz-Polarization Factor Charts for Equi-Inclination Weissenberg Photographs (for Obtaining Visual Intensity Measurements in Crystal Structure Analysis).</i> (Chia-Si Lu, Review of Scientific Instruments, Vol. 14, No. 11, November, 1943, pp. 331-335.)
707	19662 Germany ...	<i>Electromagnetic Separators for Various Industrial Purposes.</i> (Z.V.D.I., Vol. 87, Nos. 5-6, 6/2/43, pp. 81-82.)



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>PRODUCTION.</b>		
<b>Organisation and Control.</b>		
708	18558 G.B. ...	... <i>Quantity Control (Production, Organisation, etc.)</i> . (Automobile Engineer, Vol. 34, No. 445, January, 1944, pp. 12-14.)
709	18912 U.S.A. ...	... <i>Control for Conservation of Aircraft Materials</i> . (Aero Digest, Vol. 43, No. 5, November, 1943, pp. 249, 463.)
710	18915 U.S.A. ...	... <i>Models Help in Production Planning</i> . (H. G. Groehn, Aero Digest, Vol. 43, No. 5, November, 1943, pp. 260-264, 286.)
711	19084 G.B. ...	... <i>Statistical Methods for Government Departments</i> . (Nature, Vol. 153, No. 3,872, 15/1/44, pp. 88-89.)
712	19452 U.S.A. ...	... <i>Aircraft Production Analysis (Key to Assembly Line Efficiency)—Part I</i> . (L. F. Dorman, Aviation, Vol. 42, No. 11, November, 1943, pp. 148-152, 332.)
713	19593 U.S.A. ...	... <i>Inspection Efficiency—I</i> . (J. C. Edwards and W. N. Bennett, Machinist, Vol. 87, No. 38, 8/1/44, pp. 236D-237D.)
714	19659 Germany ...	... <i>Standardisation and Science</i> . (O. Kienzle, Z.V.D.I., Vol. 87, Nos. 5-6, 6/2/43, pp. 68-76.)
715	19660 Germany ...	... <i>25 Years of German Standards</i> . (W. Parcy, Z.V.D.I., Vol. 87, No. 5-6, 6/2/43, pp. 76-77.)
716	19816 G.B. ...	... <i>Production Engineering Abstracts</i> . (J. Inst. Prod. Eng., Vol. 23, No. 1, Jan., 1944, pp. 1-12.)
717	19838 U.S.A. ...	... <i>Design for Mass Production (How the Engineering Department Can Help the Tooling Man, Particularly in the Aircraft Industry) (Symposium)</i> . (Various authors, Mechanical Engineering, Vol. 66, No. 1, Jan., 1944, pp. 22-28.)
718	19973 G.B. ...	... <i>Bibliography on Welding Costs</i> . (The Institute of Welding, Feb., 1943, pp. 1-2.)
<b>Research and Training.</b>		
719	18544 G.B. ...	... <i>U.S. Expenditure on Research (Figures)</i> . (Flight, Vol. 45, No. 1,829, 13/1/44, p. 32.)
720	18580 G.B. ...	... <i>Suggested New School of Aeronautical Science in G.B.</i> (Nature, Vol. 152, No. 3,867, 11/12/43, p. 686.)
721	18581 G.B. ...	... <i>Function of Special and General Libraries</i> . (Nature, Vol. 152, No. 3,867, 11/12/43, pp. 687-688.)
722	18634 G.B. ...	... <i>Education in 1943 (including Syllabuses for Institution Examinations)</i> . (Engineer, Vol. 177, No. 4,592, 14/1/44, pp. 27-28, 32-33.)
723	18761 G.B. ...	... <i>The Engineering Outlook. I—Retrospect and Prospect (Survey of British Production, Industrial Organisation, etc.)</i> . (Engineering, Vol. 157, No. 4,069, 7/1/44, pp. 14-15.)
724	18839 G.B. ...	... <i>Report on Scientific Research and the Universities in Post-War Britain</i> . (Journal of Scientific Instruments, Vol. 20, No. 12, Dec., 1943, p. 199.)
725	18998 U.S.S.R. ...	... <i>The U.S.S.R. Academy of Sciences</i> . (Nature, Vol. 152, No. 3,866, 4/12/43, pp. 653-654.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
726	19006 G.B. ...	... <i>Information Exchange Effects of Specialisation (Need for a Central Bureau of Technical Information)</i> . (B. Kaiser, <i>Aircraft Production</i> , Vol. 6, No. 64, Feb., 1944, p. 68.)
727	19069 G.B. ...	... <i>Library Service in Great Britain (Proposals by the Council of the Library Association)</i> . ( <i>Nature</i> , Vol. 152, No. 3,869, 25/12/43, pp. 733-734.)
728	19248 G.B. ...	... <i>Apprenticeship Training (Electrical Firms)</i> . ( <i>Electrical Times</i> , Vol. 105, No. 2,725, 13/1/44, p. 57.)
729	19276 G.B. ...	... <i>Training and Recruitment for Public Services</i> . ( <i>Nature</i> , Vol. 153, No. 3,873, 22/1/44, pp. 91-94.)
730	19512 G.B. ...	... <i>Scientific Industrial Research</i> . ( <i>Engineering</i> , Vol. 157, No. 4,073, 4/2/44, pp. 91-92.)
731	19520 China	... <i>Research Activities in China</i> . ( <i>Endeavour</i> , Vol. 2, No. 8, Oct., 1943, p. 147.)
732	19617 Canada	... <i>The Problem of Women Workers (Vultee Aircraft Study)</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 11, Nov., 1943, pp. 78-80.)
733	19658 Germany	... <i>Standardisation and Evolution</i> . (W. Hellmich, <i>Z.V.D.I.</i> , Vol. 87, Nos. 5-6, 6/2/43, pp. 65-67.)
734	19721 G.B. ...	... <i>Training Metallurgists</i> . ( <i>Metal Industry</i> , Vol. 64, No. 6, 11/2/44, p. 81.)
735	19744 G.B. ...	... <i>Science and Industry</i> . (J. G. Bennett, <i>Nature</i> , Vol. 153, No. 3,874, 29/1/44, pp. 130-132.)
736	19821 G.B. ...	... <i>Vacation Work for College Students</i> . ( <i>Engineering</i> , Vol. 157, No. 4,074, 11/2/44, p. 112.)
737	19839 U.S.A.	... <i>Wartime Research and Development—A Moulder of Engineering</i> . (H. V. Coes, <i>Mechanical Engineering</i> , Vol. 66, No. 1, Jan., 1943, pp. 29-31.)
738	19983 G.B. ...	... <i>Bibliography on the Training and Education of Welders</i> . (The Institute of Welding, Aug., 1943, pp. 1-8.)

#### Aircraft Production Methods.

739	18507 U.S.A.	... <i>Fabrication of Tear Drop Tank (Lockheed)</i> . ( <i>Iron Age</i> , Vol. 151, No. 24, 17/6/43, pp. 64-65.)
740	18568 G.B. ...	... <i>Salvaging Aircraft Structures in Process of Manufacture (Steel Tubing Repairs. Machined Parts, Sheet Metal Repair, Riveted Joints, etc.)</i> . (R. L. Schleicher, <i>Mechanical World</i> , Vol. 114, No. 2,969, 26/11/43, pp. 609-613, 633-634.)
741	18704 Switzerland	... <i>Device for Removing Loose Parts (Screw, Rivets, etc.) Before Assembling Structural Elements</i> . ( <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, p. 82.)
742	18717 Switzerland	... <i>Stress Investigations on Transparent Fuselage Noses (Replacement of Plexiglass by an Equivalent Tension Field)</i> . (E. S. Schasly, <i>Flugwehr und Technik</i> , Vol. 5, No. 7, July, 1943, pp. 189-194.)
743	18723 Switzerland	... <i>Flight Adjustments on Mass Produced Junkers Aircraft Before Release to the Front</i> . ( <i>Flugwehr und Technik</i> , Vol. 4, No. 12, Dec., 1943, pp. 326-328.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
744	18830 G.B. ...	... <i>Organisation of the Manufacture of Parts (Detail Arrangements Necessary for the Control and Progress of Work in the Shops)</i> . (D. Tiranti, <i>Aircraft Engineering</i> , Vol. 16, No. 179, January, 1944, pp. 21-24.)
745	18832 G.B. ...	... <i>Lockheed Chain-Line Assembly</i> . (H. W. Perry, <i>Aircraft Engineering</i> , Vol. 16, No. 179, January, 1944, pp. 26-28.)
746	18858 G.B. ...	... <i>Typhoon Production</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,704, 21/1/44, pp. 64-65.)
747	18862 G.B. ...	... <i>Heron to Typhoon (The Hawker Method of Fuselage Construction)</i> . ( <i>Aeroplane</i> , Vol. 66, No. 1,704, 21/1/44, pp. 72-73.)
748	18882 U.S.A.:	... <i>Laminated Aircraft Sub-Assemblies</i> . ( <i>Modern Plastics</i> , Vol. 21, No. 1, Sept., 1943, pp. 81-82, 144.)
749	18900 U.S.A.	... "Cycleweld" <i>Technique for Joining of Aircraft Parts (Using Thermosetting Plastic Under Heat and Pressure to Join Metal, Wood to Metal, Metal to Rubber or Plastic)</i> . (F. M. Reck, <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 183-187.)
750	18905 U.S.A.	... <i>Building the Waco CG-4A Glider (Plywood Wings)</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 208-215.)
751	18907 U.S.A.	... <i>Aircraft Parts and Fixtures Manufactured at Herron-Zimmers Plant (Survey of Procedure in Cutting Tubes, Welding, Drilling, etc.)</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 224-228.)
752	18909 U.S.A.	... <i>Lofting Problems of Streamline Bodies (Part 19)</i> . (C. N. Hartley and E. A. Liming, <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 230-232, 316.)
753	18910 U.S.A.	... <i>Wrap Aircraft for Overseas Shipment (Pliofilm Raincoat)</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 237-242, 284, 288-290.)
754	18924 U.S.A.	... <i>Power-Driving of Stud Bolts</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, p. 369.)
755	18925 U.S.A.	... <i>Wing Chord Divider Beam Aids Draftsmen in Layout Work</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, pp. 369-371.)
756	18926 U.S.A.	... <i>Deburrer for Lightening Holes Speeds Bulkheads Output</i> . ( <i>Aero Digest</i> , Vol. 43, No. 5, November, 1943, p. 375.)
757	18984 G.B. ...	... <i>Methods Used in Germany for Anodising Aluminium Alloy Aeroplane Parts</i> . ( <i>Metal Treatment</i> , Vol. 10, No. 35, Autumn, 1943, p. 198.)
758	19005 G.B. ...	... <i>Friction Cutting by High Speed Band Saws (Bell Process)</i> . ( <i>Aircraft Production</i> , Vol. 6, No. 64, Feb., 1944, p. 66.)
759	19007 G.B. ...	... <i>Steel Tube Airscrew Blades Production Technique of the American Propeller Corporation</i> . ( <i>Aircraft Production</i> , Vol. 6, No. 64, Feb., 1944, pp. 71-75.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
760	19009 G.B. ...	<i>Small Scale Assembly—Quantity Production to the Assembly of Intricate Gyro Control Mechanism.</i> (L. H. Whatley, Aircraft Production, Vol. 6, No. 64, Feb., 1944, pp. 79-84.)
761	19012 G.B. ...	<i>The Weibel Electric Welding Process (German Information Regarding its Application for Aircraft Construction).</i> (R.T.P.3 Translation No. 2,013.) (Aircraft Production, Vol. 6, No. 64, Feb., 1944, pp. 93-95.)
762	19013 G.B. ...	<i>Resistance Welding—a Philips Development for Heavy Gauge Light Alloy Work.</i> (Aircraft Production, Vol. 6, No. 64, Feb., 1944, p. 98.)
763	19015 G.B. ...	<i>Development of Boeing Flying Fortress (Table).</i> (Aircraft Production, Vol. 6, No. 64, Feb., 1944, p. 102.)
764	19016 G.B. ...	<i>Laminated Wood Tubes (Employed in Assembly to Form Aircraft Structural Units (Patents)).</i> (Aircraft Production, Vol. 6, No. 64, Feb., 1944, p. 103.)
765	19156 G.B. ...	<i>Second Thoughts on Production Illustration.</i> (E. J. Rice, Aeronautics, Vol. 9, No. 4, November, 1943, p. 55.)
766	19196 G.B. ...	<i>Japan's Aircraft Output.</i> (Aeronautics, Vol. 9, No. 5, Dec., 1943, p. 33.)
767	19247 G.B. ...	<i>Infra-Red Heating in Aircraft Assemblies.</i> (Electrical Times, Vol. 105, No. 2,725, 13/1/44, pp. 53-54.)
768	19317 G.B. ...	<i>Fighter Plane Mass Production (Special Tooling, Labour Saving and New Methods at the Curtiss-Wright Plant).</i> (Machinery, Vol. 63, No. 1,615, 23/9/43, pp. 337-341.)
769	19326 G.B. ...	<i>Grinding Steel Crankcases for Aircraft Engines.</i> (Machinery, Vol. 63, No. 1,627, 16/12/43, pp. 681-686.)
770	19333 G.B. ...	<i>Grinding Aero Engine Crankcases.</i> (Machinery, Vol. 64, No. 1,630, 6/1/44, pp. 11-13.)
771	19496 U.S.S.R. ...	<i>The Re-organisation of the Russian Aircraft Industry.</i> (Aeroplane, Vol. 66, No. 1,706, 4/2/44, pp. 130-131.)
772	19561 G.B. ...	<i>Infra-Red Heating Applied to Aircraft Assemblies.</i> (Mechanical World, Vol. 115, No. 2,979, 4/2/44, pp. 115-116.)
773	19602 U.S.A. ...	<i>Rapid Production of Knuckle-Pin Locking Plates for Air-Cooled Radial Aircraft Engines (Republic Aircraft Co.).</i> (Machinist, Vol. 87, No. 38, 8/1/44, pp. 89-95.)
774	19603 U.S.A. ...	<i>Grinding the Hub-End of One-Piece Steel Propeller Blades (Work Mounted in a Shuttle).</i> (Machinist, Vol. 87, No. 38, 8/1/44, pp. 96-97.)
775	19604 U.S.A. ...	<i>Methods for Cutting Aircraft Sheet Metal (Routing).</i> (Machinist, Vol. 87, No. 38, 8/1/44, pp. 98-100.)
776	19608 U.S.A. ...	<i>Budd's New All-Steel Cargo Plane for Navy.</i> (American Aviation, Vol. 7, No. 14, 15/12/43, p. 24.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
777	19611 U.S.A.	... "Prestite" (Porcelain Produced by Westinghouse to Protect Aircraft Radio Systems at High Altitudes). (American Aviation, Vol. 7, No. 14, 15/12/43, p. 87.)
778	19612 U.S.A.	... Water Injection Employed on Pratt and Whitney's Double Wasp Engines. (American Aviation, Vol. 7, No. 14, 15/12/43, p. 90.)
779	19627 U.S.A.	... Review of Curtiss Aircraft Since 1937. (Curtiss Fly Leaf, Vol. 27, No. 3, August, 1943, pp. 9-11.)
780	19643 U.S.A.	... Line Method Production of Engine Overhaul. (L. H. Flatter, Aviation Maintenance, Vol. 1, No. 1, December, 1943, pp. 100-103.)
781	19616 Canada	... Aircraft Repair, Ltd. (Organisation and Installations). (R. A. Keith, Canadian Aviation, Vol. 16, No. 11, Nov., 1943, pp. 73-76.)
782	19844 G.B. ...	... Infra-Red Heating as Applied to Aircraft Assemblies. (Machinist, Vol. 87, No. 40, 27/1/44, p. 250E.)
783	19856 G.B. ...	... Methods for Cutting Aircraft Sheet Metal—III (Data Sheets). (Machinist, Vol. 87, No. 40, 27/1/44, pp. 117-118.)
784	19858 U.S.A.	... Air Pockets Under Aeroplane Fabric Removed with Hypodermic Needle. (Machinist, Vol. 87, No. 40, 27/1/44, p. 115.)
785	19859 Canada	... Planes Made in Canada (Map and Chart). (Canadian Aviation, Vol. 16, No. 12, Dec., 1943, pp. 81-82.)
786	19861 Canada	... Production of the P.B.Y. Canso Amphibians (Canadian Vickers, Ltd.). (Canadian Aviation, Vol. 16, No. 12, Dec., 1943, pp. 110-112.)
787	19862 Canada	... Production Breakdown Illustration. (P. Madison, Canadian Aviation, Vol. 16, No. 12, Dec., 1943, pp. 125-128.)
788	19942 G.B. ...	... Making Plastic Noses for Bombers. (British Plastics, Vol. 16, No. 177, Feb., 1944, p. 94.)
789	19963 G.B. ...	... Welded Construction—Aircraft (Bibliography). (The Institute of Welding, pp. 1-4.)

#### Other War Production.

790	18502 U.S.A.	... Hot Trimming of Shell Forgings. (Iron Age, Vol. 151, No. 24, 17/6/43, p. 51.)
791	18632 G.B. ...	... Some Principles of Cold-Working. Part II—Application to the Manufacture of Artillery Cartridge Cases. (D. A. Lloyd, Metal Industry, Vol. 64, No. 2, 14/1/44, pp. 25-28.)
792	18682 G.B. ...	... "Mago" Coupling Made by Metalastik, Ltd. (A. Garrard, Engineers' Digest, Vol. 4, No. 12, Dec., 1943, pp. 357-358.)
793	19312 G.B. ...	... The Mass Production of Small Arms Ammunition (Remingtons). (Machinery, Vol. 63, No. 1,611, 26/8/43, pp. 231-236.)
794	19366 G.B. ...	... The Manufacture of the Sten Gun. (Machinery, Vol. 64, No. 1,633, 27/1/44, pp. 85-89.)

ITEM NO	R.T.P. REF.	TITLE AND JOURNAL.
795	19484 G.B. ...	... <i>Some Principles of Cold-Working—Their Application to the Manufacture of Artillery Cartridge Cases—Part V.</i> (V. R. Lloyd, <i>Metal Industry</i> , Vol. 64, No. 5, 4/2/44, pp. 71-73.)
796	19527 G.B. ...	... <i>Method of Calculating Shell Blank Diameters.</i> (K. Jackson, <i>Sheet Metal Industries</i> , Vol. 19, No. 202, February, 1944, pp. 263-264.)
797	19562 G.B. ...	... <i>The Production Heat Treatment of Gears (Methods of Dealing with Distortion).</i> ( <i>Mechanical World</i> , Vol. 115, No. 2,979, 4/2/44, pp. 117-120.)
798	19568 G.B. ...	... <i>Automatic Forging of 90 mm. Shells.</i> ( <i>Machinery</i> , Vol. 64, No. 1,633, 27/1/44, pp. 95-96.)
799	19569 G.B. ...	... <i>Method of Grinding Crankshafts on Centreless Grinders.</i> (E. E. Fluskey, <i>Machinery</i> , Vol. 64, No. 1,633, 27/1/44, pp. 97-98.)
800	19572 G.B. ...	... <i>Modern Machine Tool Production.</i> (T. P. N. Burness, <i>Machinery</i> , Vol. 64, No. 1,633, 27/1/44, pp. 101-102.)
801	19831 G.B. ...	... <i>The Manufacture of the Sten Gun—Press Tool Methods in the Production of the Body Case.</i> ( <i>Machinery</i> , Vol. 64, No. 1,634, 3/2/44, pp. 113-117.)
802	19854 G.B. ...	... <i>Four Sections of Tubing Cut Off in One Set-up.</i> (W. Karpusiewicz, <i>Machinist</i> , Vol. 87, No. 4b, 27/1/44, p. 111.)
803	19943 G.B. ...	... <i>Some Principles of Cold-Working—Their Application to the Manufacture of Artillery Cartridge Cases—Part VII.</i> (D. H. Lloyd, <i>Metal Industry</i> , Vol. 64, No. 7, 18/2/44, pp. 98-100.)
804	19962 G.B. ...	... <i>Welded Construction — Rolling Stock (Bibliography).</i> ( <i>The Institute of Welding</i> , Aug., 1940, pp. 1-5.)
<b>General Methods.</b>		
805	18501 U.S.A. ...	... <i>25 per cent. Speed Increase by New Drilling Technique.</i> (W. A. Phair, <i>Iron Age</i> , Vol. 151, No. 24, 17/6/43, pp. 48-51.)
806	18503 U.S.A. ...	... <i>Automatic Heat Treating in a Jobbing Forge Shop.</i> ( <i>Iron Age</i> , Vol. 151, No. 24, 17/6/43, pp. 52-53.)
807	18506 U.S.A. ...	... <i>Inspection History Stamped on Part.</i> ( <i>Iron Age</i> , Vol. 151, No. 24, 17/6/43, p. 63.)
808	18807 G.B. ...	... <i>Sensitometry of Drawing Office Photo-Printing Processes.</i> (H. Heywood, <i>Engineering</i> , Vol. 157, No. 4,070, 14/1/44, pp. 21-24.)
809	19067 G.B. ...	... <i>X-Ray Examination Reduces Scrap (Routine Application of Radiography).</i> ( <i>Light Metals</i> , Vol. 7, No. 72, January, 1944, pp. 30-33.)
810	19272 G.B. ...	... <i>Tyre Inspection by Supersonics.</i> ( <i>Electrical Review</i> , Vol. 133, No. 3,443, 19/11/43, p. 672.)
811	19273 G.B. ...	... <i>X-Rays in Industry — Routine Crystallographic Analysis.</i> ( <i>Electrical Review</i> , Vol. 133, No. 3,443, 19/11/43, pp. 685-686.)
812	19275 G.B. ...	... <i>Chimney Losses—Checking the Composition of Flue Gases.</i> ( <i>Electrical Review</i> , Vol. 133, No. 3,446, 10/12/43, pp. 791-792.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
813	19314 G.B. ...	... <i>Production Gauge Design and Dimensioning.</i> (Machinery, Vol. 63, No. 1,611, 26/8/43, pp. 237-240.)
814	19334 G.B. ...	... <i>Infra-Red Paint Drying by Gas.</i> (Machinery, Vol. 64, No. 1,630, 6/1/44, pp. 14-18.)
815	19522 G.B. ...	... <i>The Uses of Controlled Atmospheres in the Metal Industries. Part V—Ferrous Materials.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 243-250.)
816	19526 G.B. ...	... <i>Detecting Flaws in Sheets with Ultra-High Frequency Sound Waves.</i> (Z.V.D.I., Vol. 87, Nos. 23-24, 12/6/43, pp. 352-354.) (A. Trost, Sheet Metal Industries, Vol. 19, No. 202, February, 1944, pp. 255-257.)
817	19598 U.S.A. ...	... <i>Scraping Eliminated by Machining Smooth Surfaces.</i> (R. R. Weech, Machinist, Vol. 87, No. 38, 8/1/44, p. 86.)
818	19674 Germany ...	... <i>The Design of Drop Forgings.</i> (H. Haller, Z.V.D.I., Vol. 87, Nos. 51-52, 25/12/43, pp. 809-814.)
819	19685 G.B. ...	... <i>Oxygen Economy (Rules for Efficient Cutting).</i> (Production and Engineering Bulletin, Vol. 2, No. 13, December, 1943, pp. 594-595.)
820	19686 G.B. ...	... <i>Magnesium Alloy Fires Are Preventable.</i> (Production and Engineering Bulletin, Vol. 2, No. 13, December, 1943, pp. 596-598.)
821	19723 G.B. ...	... <i>Fire Control in Magnesium Foundries—A Discussion on American Practice.</i> (R. I. Thrune, Metal Industry, Vol. 64, No. 6, 11/2/44, pp. 85-88.)
822	19819 U.S.A. ...	... <i>The "Presspun" Process of Dishing and Flanging.</i> (Engineering, Vol. 157, No. 4,074, 11/2/44, p. 116.)
<b>Plant Equipment.</b>		
823	18504 U.S.A. ...	... <i>Douglas Tube Bender Speeds Output.</i> (Iron Age, Vol. 151, No. 24, 17/6/43, pp. 54-57.)
824	18652 Germany ...	... <i>Jig for Building up Composite Wing Spares</i> (739,610). (Junkers, Flugsport, Vol. 35, No. 16, 15/12/43, p. 73.)
825	18686 G.B. ...	... <i>The Application of "Wimet" to Riveting (Tungsten Carbide Tipped Riveting Punch).</i> (Engineers' Digest, Vol. 4, No. 12, Dec., 1943, p. 363.)
826	18733 Switzerland ...	... <i>Fully Automatic Punch Riveting Machine Employed by Heinkel.</i> (H. Scholl, Flugwehr und Technik, Vol. 4, No. 11, Nov., 1942, pp. 296-297.)
827	18816 U.S.A. ...	... <i>Industrial Control Instrument Settings.</i> (L. H. Allen, Industrial and Engineering Chemistry, Vol. 35, No. 12, December, 1943, pp. 1223-1229.)
828	19340 G.B. ...	... <i>Set-up of Oxygen Cutting Machines Placed in Assembly Fabrication Lines.</i> (Sheet Metal Industries, Vol. 19, No. 202, February, 1944, p. 330.)
829	19468 G.B. ...	... <i>The Influence of Production Requirements on the Design of Reciprocating Machinery.</i> (R. E. Strab, Engineer, Vol. 177, No. 4,595, 4/2/44, pp. 98-100.)

- | ITEM NO.                 | R.T.P. REF.   | TITLE AND JOURNAL.   |
|--------------------------|---------------|--|
| 830                      | 1955 U.S.A.   | ... <i>Scale Checks Torque Wrench.</i> (S. C. Spink, <i>Machinist</i> , Vol. 87, No. 38, 8/1/44, p. 87.)   |
| 831                      | 1960 U.S.A.   | ... <i>Gauging Fixture Checks Bolt Recess.</i> (F. Scriber, <i>Machinist</i> , Vol. 87, No. 38, 8/1/44, pp. 87-88.)  |
| 832                      | 1967 Germany  | ... <i>New Apparatus for Testing Gear Wheels Ground on One Flank Only.</i> ( <i>Z.V.D.I.</i> , Vol. 87, Nos. 51-52, 25/12/43, p. 816.)                       |
| 833                      | 1969 U.S.A.   | ... <i>New Lenses Eliminate Glare in Welding Aluminium (Abstract).</i> ( <i>Journal of the Franklin Institute</i> , Vol. 234, No. 4, October, 1942, p. 384.) |
| 834                      | 1994 G.B. ... | ... <i>Plastic Jigs for Aircraft Production.</i> ( <i>British Plastics</i> , Vol. 16, No. 177, Feb., 1944, p. 90.)   |
| 835                      | 1997 G.B. ... | ... <i>Bibliography on Welding Shop Management and Layout.</i> ( <i>The Institute of Welding</i> , Feb., 1943, pp. 1-12.)                                    |
| <b>Workers' Welfare.</b> |               |  |
| 836                      | 1875 G.B. ... | ... <i>Dust Explosion in Industry, with Particular Reference to Cereals, 1935-1942.</i> ( <i>Science Library Bibliographical Series</i> No. 600, 23/11/43.)  |
| 837                      | 1882 G.B. ... | ... <i>Industrial Fire Risks.</i> ( <i>Engineering</i> , Vol. 157, No. 4,070, 14/1/44, p. 32.)   |
| 838                      | 1926 G.B. ... | ... <i>Fluorescent Factory Lighting.</i> ( <i>Electrical Times</i> , Vol. 104, No. 2,718, 25/11/43, p. 642.)   |
| 839                      | 1953 G.B. ... | ... <i>The Scope of Lighting in Industry.</i> (J. H. Nelson, <i>Sheet Metal Industries</i> , Vol. 19, No. 202, Feb., 1944, pp. 285-293.)                     |
| 840                      | 1956 G.B. ... | ... <i>Health Precautions in Cellulose Paint Spraying.</i> (T. Lewis, <i>Mechanical World</i> , Vol. 115, No. 2,978, 28/1/44, p. 111.)                       |
| 841                      | 1968 G.B. ... | ... <i>Efficiency in Factory Heating.</i> ( <i>Production and Engineering Bulletin</i> , Vol. 2, No. 13, December, 1943, pp. 584-586.)                       |
| 842                      | 1968 G.B. ... | ... <i>Industrial Dermatitis (Causes and Treatment).</i> ( <i>Production and Engineering Bulletin</i> , Vol. 2, No. 13, December, 1943, pp. 600-607.)        |
| 843                      | 1997 G.B. ... | ... <i>Bibliography on Welders' Safety and Health.</i> ( <i>The Institute of Welding</i> , April, 1943, pp. 1-6.)  |
| 844                      | 1998 U.S.A.   | ... <i>Control Manual for Heating, Ventilating and Air Conditioning.</i> (Minneapolis, Honeywell House Publication, 1942.)                                   |

### TRANSPORT.

#### Army Vehicles, including Tanks.

- |     |              |   |
|-----|--------------|---|
| 845 | 18528 U.S.A. | ... <i>Tyre and Track Flotation of Military Vehicles (Overcoming Difficulties of Cross-Country Operation).</i> (J. E. Engler, <i>S.A.E. Preprints</i> , 10-14/1/44, pp. 1-6.)   |
| 846 | 18530 U.S.A. | ... <i>Ordnance Keeps 'Em Rolling (Survey of Army Tests of Synthetic Tyres).</i> (Lt.-Col. B. J. Lemon, <i>S.A.E. Preprints</i> , 10-14/1/44, pp. 1-11.)                        |
| 847 | 18607 U.S.A. | ... <i>Keep 'Em Rolling on Ice Floes or Deserts (Army Motor Transportation).</i> (R. G. McCloskey, <i>Coast Artillery Journal</i> , Vol. 86, No. 3, May-June, 1943, pp. 62-64.) |



ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
848	18804 G.B. ...	... <i>U.S. Army Amphibious Vehicles</i> . (Engineering Vol. 157, No. 4,070, 14/1/44, p. 36.)
849	18843 U.S.A. ...	... " <i>Eyes</i> " of the Tank—Use of Plastic Lens Holders in Tank Periscopes. (Modern Plastics, Vol. 21, No. 2, October, 1943, pp. 75-77.)
850	18865 G.B. ...	... <i>New Type of Truck for Reaching Land Plane Loading Hatches (Photo)</i> . (Aeroplane, Vol. 66, No. 1,704, 21/1/44, p. 76.)
851	19281 U.S.A. ...	... <i>Procedure for Repairing Rubber Tyres and Tubes</i> . (National Petroleum News, Vol. 35, No. 43, 27/10/43, pp. 34-36.)
852	19481 U.S.A. ...	... <i>Automotive Transportation in India and its Maintenance Problems (Summary)</i> . (H. A. Courtenay, S.A.E. Journal, Vol. 51, No. 12, December, 1943, pp. 34-35.)
853	19751 G.B. ...	... <i>Humber Reconnaissance Car—Mark III</i> . (Automobile Engineer, Feb., 1944, pp. 43-52.)
854	19803 U.S.A. ...	... <i>After the Tank, What?</i> (H. W. Miller, Army Ordnance, Vol. 26, No. 142, Jan.-Feb., 1944, pp. 83-88.)

#### Automobiles and Motor Cycles.

855	18533 U.S.A. ...	... <i>The Practical Post-War Car (Review of Practical Advancements in Materials and Design, with Special Reference to Body Construction)</i> . (E. C. De Smet, S.A.E. Preprints, 10-14/1/44, pp. 1-19.)
856	19064 G.B. ...	... <i>Aluminium in Automobiles</i> . (L. Pomeroy, Light Metals, Vol. 7, No. 72, January, 1944, pp. 5-10.)
857	19066 G.B. ...	... <i>Light Metals and the Motor Cycle (British and Continental Practice)</i> . (J. Craig, Light Metals, Vol. 7, No. 72, January, 1944, pp. 20-30.)
858	19105 G.B. ...	... <i>A Road Vehicle for 120-140 Ton Loads (Cranes (Derham), Ltd.)</i> . (Engineer, Vol. 157, No. 4,594, 28/1/44, pp. 75-76.)
859	19106 G.B. ...	... <i>Future of Transport</i> . (Gilbert Szlumper, Engineer, Vol. 157, No. 4,594, 28/1/44, pp. 76-78.)
860	19818 G.B. ...	... <i>The Engineering Outlook v. Motor Vehicles and Cycles</i> . (Engineering, Vol. 157, No. 4,074, 11/2/44, p. 114.)

#### Electric Driven Vehicles.

861	18560 G.B. ...	... <i>Electric Vehicle Charging—Non-Reversible Plugs and Sockets with Automatic Safety Interlock</i> . (Automobile Engineer, Vol. 34, No. 445, January, 1944, p. 20.)
862	18561 G.B. ...	... <i>The Battery Vehicle (the Need for Further Development)</i> . (Automobile Engineer, Vol. 34, No. 445, January, 1944, pp. 23-24.)
863	19268 G.B. ...	... <i>Electric Traction in Russia—Recent Technical Developments</i> . (D. K. Minov, Electrical Review, Vol. 133, No. 3,441, 5/11/43, pp. 601-602.)
864	19271 G.B. ...	... <i>Electric Vehicles</i> . (Electrical Review, Vol. 133, No. 3,443, 19/11/43, pp. 673-674.)
865	19361 G.B. ...	... <i>Battery Trucks for Russia (Designed to Stand Up to Arctic Conditions)</i> . (Electrical Times, Vol. 105, No. 2,727, 27/1/44, pp. 113-114.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
<b>Rail Transport.</b>		
866	18806 G.B. ...	<i>The Riding and Wearing of Railway Carriage Tyres.</i> (C. W. Newberry, <i>Engineering</i> , Vol. 157, No. 4,070, 14/1/44, pp. 38-40.)
867	19117 G.B. ...	<i>The Riding and Wearing of Railway Carriage Tyres.</i> (C. W. Newberry, <i>Engineering</i> , Vol. 157, No. 4,071, 21/1/44, pp. 57-60.)
868	19672 Germany ...	<i>Drive of Electric Generators on Railways.</i> (W. Kehse, <i>Z.V.D.I.</i> , Vol. 87, No. 51-52, 25/12/43, pp. 803-807.)

### WIRELESS AND ELECTRICITY.

<b>General Radio.</b>		
869	18582 G.B. ...	<i>Radio Location in Peace Time.</i> ( <i>Nature</i> , Vol. 152, No. 3,867, 11/12/43, p. 688.)
870	18713 Switzerland ...	<i>Wireless Direction Finding.</i> (W. Rock, <i>Flugwehr und Technik</i> , Vol. 5, No. 7, July, 1943, pp. 182-185.)
871	18753 G.B. ...	<i>Radio in Mines.</i> ( <i>Science Library Bibliographical Series</i> No. 598, 1943.)
872	18777 G.B. ...	<i>U.H.F. and Post-War Broadcasting.</i> (K. I. Jones and D. A. Bell, <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, pp. 320-323.)
873	18779 G.B. ...	<i>Communication at Supersonic Frequencies.</i> (S. J. Weitzer, <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, pp. 327-328.)
874	18780 G.B. ...	<i>Aerial Characteristics. V—Radiation Resistance and Effective Height (Data Sheet 57); Conical Aerials (Data Sheet 58).</i> ( <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, pp. 329-332.)
875	19063 Canada ...	<i>Radio Transmitter for Downed Airmen (Photo).</i> ( <i>Canadian Aviation</i> , Vol. 16, No. 9, Sept., 1943, p. 104.)
876	19085 G.B. ...	<i>A Gas-Tube Harmonic Generator (for Testing the Fidelity of Television Receiving Equipment, etc.).</i> ( <i>Nature</i> , Vol. 153, No. 3,872, 15/1/44, p. 89.)
877	19239 G.B. ...	<i>Directive Aerials (I.E.E. Paper).</i> ( <i>The Electrician</i> , Vol. 132, No. 3,426, 28/1/44, pp. 75-76.)
878	19259 G.B. ...	<i>Airborne Radio—Description of Enemy Equipment and Practice.</i> (C. P. Edwards, <i>Electrician</i> , Vol. 131, No. 3,417, 25/11/43, p. 533.)
879	19689 Australia ...	<i>Thermal Frequency Drift Compensation.</i> (T. R. W. Bushby, <i>A.W.A. Tech. Review</i> , Vol. 6, No. 3, 1943, pp. 143-160.)
880	19690 Australia ...	<i>Remote Control of Crystal-Locked Receivers.</i> (J. E. Benson and A. G. Brown, <i>A.W.A. Tech. Review</i> , Vol. 6, No. 3, 1943, pp. 161-175.)
<b>General Electricity.</b>		
881	18585 G.B. ...	<i>Wave Guide in Electrical Communications.</i> ( <i>Nature</i> , Vol. 152, No. 3,867, 11/12/43, p. 701.)
882	18683 G.B. ...	<i>Development of Super Tension Cables in Great Britain.</i> (F. W. Main, <i>Engineers' Digest</i> , Vol. 4, No. 12, Dec., 1943, pp. 359-361.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
883	18776 G.B. ...	<i>Variable Frequency Resistance Capacity Oscillators.</i> (J. A. B. Davidson, <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, pp. 316-319.)
884	18783 G.B. ...	<i>Wide Band Circuit for I.F. Amplifiers.</i> ( <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, p. 350.)
885	19218 G.B. ...	<i>Temperature Limits—Factors Determining Values for Oil Immersed Transformers.</i> (C. H. Pike, <i>Electrical Review</i> , Vol. 133, No. 3,450, 7/1/44, pp. 9-11.)
886	19219 G.B. ...	<i>Frequency Comparison—Use of a Cathode Ray Oscilloscope.</i> (G. F. Freeman, <i>Electrical Review</i> , Vol. 133, No. 3,450, 7/1/44, pp. 12-14.)
887	19229 G.B. ...	<i>Testing A.C. Motors (Trials Under Full-Load Conditions).</i> (K. Broom, <i>Electrical Review</i> , Vol. 134, No. 3,452, 21/1/44, pp. 85-86.)
888	19230 G.B. ...	<i>German Cable Problems (Substitute Materials Used).</i> ( <i>Electrician</i> , Vol. 131, No. 3,414, 5/11/43, pp. 450-452.)
889	19232 G.B. ...	<i>International Standardisation (I.E.E. Meeting).</i> ( <i>Electrician</i> , Vol. 131, No. 3,414, 5/11/43, pp. 459-460.)
890	19236 G.B. ...	<i>Care of Electrical Power Plant—II.</i> ( <i>Electrician</i> , Vol. 131, No. 3,422, 31/12/43, pp. 655-656.)
891	19238 G.B. ...	<i>Marine Electricity.</i> (A. C. Hardy, <i>The Electrician</i> , Vol. 132, No. 3,426, 28/1/44, pp. 71-73.)
892	19243 G.B. ...	<i>Vertical Loads on Overhead Lines.</i> (P. J. Ryle, <i>Electrical Times</i> , Vol. 104, No. 2,722, 23/12/43, pp. 745-747.)
893	19249 G.B. ...	<i>Loading of Transformers. Part I—Comparison of British and American Practice.</i> (A. Langley Morris, <i>Electrical Times</i> , Vol. 105, No. 2,726, 20/1/44, pp. 68-71.)
894	19263 G.B. ...	<i>Converting a Planer to Electrical Drive.</i> (G. Pynegar and T. E. Simms, <i>Electrical Times</i> , Vol. 104, No. 2,715, 4/11/43, pp. 547-548.)
895	19462 G.B. ...	<i>Electrical Engineering in 1943.</i> ( <i>Engineer</i> , Vol. 177, No. 4,595, 4/2/44, pp. 86-87.)
896	19500 G.B. ...	<i>Electricity in Wartime—I.</i> ( <i>Electrical Review</i> , Vol. 134, No. 3,453, 28/1/44, pp. 113-117.)
897	19521 G.B. ...	<i>The Electrometric Determination of pH and Some of its Applications.</i> (H. T. S. Britton, <i>Endeavour</i> , Vol. 2, No. 8, Oct., 1943, pp. 148-153.)
898	19739 G.B. ...	<i>Barometer Effect of Penetrating Cosmic Ray Showers.</i> (L. Janossy and G. D. Richards, <i>Nature</i> , Vol. 152, No. 3,859, 16/10/43, p. 445.)
899	19829 G.B. ...	<i>Fluorescent Tube Control Unit.</i> ( <i>Electrical Times</i> , Vol. 105, No. 2,728, 3/2/44, p. 148.)
900	19868 U.S. ...	<i>Switch Rheostat Rosette. Part I—Steam Star Formulas.</i> (W. B. Klemperer, Reprint No. S.M. 3,126, March, 1941, pp. 72-76.)

### Radiography.

901	18859 G.B. ...	<i>The Kodak School of Industrial Radiography.</i> ( <i>Aeroplane</i> , Vol. 66, No. 1,704, 21/1/44, p. 66.)
-----	----------------	--

- | ITEM<br>NO.  | R.T.P.<br>REF.   | TITLE AND JOURNAL.  |
|--|------------------|---|
| 902  | 19231 G.B. ...   | <i>Mass Radiography.</i> (D. Gunston, <i>Electrician</i> , Vol. 131, No. 3,414, 5/11/43, pp. 453-454.)  |
| <b>Electronics.</b>                                    |                  |   |
| 903  | 18680 U.S.A. ... | <i>Electronic Sorting and Testing (The Cyclograph) (for Non-Destructive Qualitative and Quantitative Metallurgical Tests on Ferrous and Non-Ferrous Material; Evaluating. Machinability, Toughness, Case Depth, etc.).</i> ( <i>Engineers' Digest</i> , Vol. 4, No. 12, Dec., 1943, pp. 355-356.) |
| 904  | 18781 G.B. ...   | <i>A Photo-Electrically Operated Stop-Watch.</i> (R. J. Wey, <i>Electronic Engineering</i> , Vol. 16, No. 191, January, 1944, pp. 334-336.)   |
| <b>SOUND, LIGHT AND HEAT.</b>                          |                  |   |
| <b>Sound Measurement.</b>                              |                  |   |
| 905  | 19000 G.B. ...   | <i>An Oscillographic Method for the Determination of the Velocity of Sound.</i> (J. M. A. Lenihan, <i>Nature</i> , Vol. 152, No. 3,866, 4/12/43, p. 662.)   |
| 906  | 19083 G.B. ...   | <i>Measurement of Hearing and Deafness.</i> ( <i>Nature</i> , Vol. 153, No. 3,872, 15/1/44, pp. 87-88.)   |
| 907  | 19279 G.B. ...   | <i>Noise Measurements in Vacuum Tubes.</i> ( <i>Nature</i> , Vol. 153, No. 3,873, 22/1/44, p. 114.)   |
| 908  | 19741 G.B. ...   | <i>Sensitivity of the Ear.</i> ( <i>Nature</i> , Vol. 152, No. 3,859, 16/10/43, p. 453.)  |
| 909  | 19931 G.B. ...   | <i>Use of Sound to Determine Ground Speed.</i> (R. C. M. Young, <i>The Aeroplane</i> , Vol. 66, No. 1,708, 18/2/44, p. 193.)  |
| <b>Colour Blindness, Night Vision, etc.</b>            |                  |   |
| 910  | 19078 G.B. ...   | <i>Chemical Aspects of the Visual Process.</i> (R. A. Norton, <i>Nature</i> , Vol. 153, No. 3,872, 15/1/44, pp. 69-71.)   |
| 911  | 19187 G.B. ...   | <i>Sight in Night Flights.</i> ( <i>Aeronautics</i> , Vol. 9, No. 1, August, 1943, pp. 67-68.)  |
| 912  | 19269 G.B. ...   | <i>Road Safety at Night—Need for Uniformity in Illumination.</i> (A. D. S. Atkinson, <i>Electrical Review</i> , Vol. 133, No. 3,441, 5/11/43, pp. 620-621.)   |
| 913  | 19544 U.S.A. ... | <i>Colour Designations for Lights.</i> (K. L. Kelly, <i>Journal of Research National Bureau of Standards</i> , Vol. 31, No. 5, November, 1943, pp. 271-278.)  |
| 914  | 18579 G.B. ...   | <i>Optical Topics in Part Connected with Charles Parsons.</i> (Lord Rayleigh, <i>Nature</i> , Vol. 152, No. 3,867, 11/12/43, pp. 676-682.)  |
| 915  | 18583 G.B. ...   | <i>Distribution of Colour-Blind Men in G.B.</i> ( <i>Nature</i> , Vol. 152, No. 3,867, 11/12/43, p. 690.)   |
| 916  | 18584 G.B. ...   | <i>Binocular and Unocular Threshold of Vision.</i> (M. H. Pirenne, <i>Nature</i> , Vol. 152, No. 3,867, 11/12/43, pp. 698-699.)   |
| <b>General Thermodynamics, Infra-Red Heating, etc.</b> |                  |   |
| 917  | 18891 G.B. ...   | <i>Unreleased Energy in Hydrocarbon Flame Gases.</i> (W. T. David and J. Mann, <i>Philosophical Magazine</i> , Vol. 34, No. 239, Dec., 1943, p. 816.)   |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
918	18892 G.B. ...	<i>The Principles of Carnot and Clausius (Re-Examination of the Laws of Thermodynamics)</i> . (W. Wilson, <i>Philosophical Magazine</i> , Vol. 34, No. 239, December, 1943, pp. 828-833.)
919	18969 U.S.A. ...	<i>American Standard Letter Symbols for Heat and Thermodynamics</i> . (S. A. Moss, <i>Industrial and Engineering Chemistry (News Edition)</i> , 10/12/43, Vol. 21, No. 23, pp. 2035-2036.)
920	19824 G.B. ...	<i>Infra-Red Heating</i> . ( <i>Electrician</i> , Vol. 132, No. 3,425, 21/1/44, pp. 56-57.)
921	19828 G.B. ...	<i>Radio-Frequency Heating Methods (I.F.E. Discussion)</i> . ( <i>Electrical Times</i> , Vol. 105, No. 2,728, 3/2/44, pp. 143-144.)

### PHOTOGRAPHY (R.A.F. AND PRODUCTION).

922	18711 Germany ...	<i>The Zeiss-Ikon High Speed Cine Camera (up to 3,000 frames/sec.)</i> . ( <i>Flugwehr und Technik</i> , Vol. 5, No. 1, Jan., 1943, pp. 24-26.)
923	18778 G.B. ...	<i>Photography of Cathode Ray Tube Tracers</i> . (N. Hendry, <i>Electronic Engineering</i> , Vol. 19, No. 191, January, 1944, pp. 324-326.)
924	18890 U.S.A. ...	<i>The Photographic Determination of Flame Temperatures in Closed Vessel Explosions</i> . (A. Smeeton Leah, <i>Philosophical Magazine</i> , Vol. 34, No. 239, Dec., 1943, p. 795.)
925	19079 G.B. ...	<i>An Ultra-High Speed Motion Picture Camera</i> . ( <i>Nature</i> , Vol. 153, No. 3,872, 15/1/44, p. 77.)
926	19178 G.B. ...	<i>R.A.F. Photomen (the Technique of Damage Assessment)</i> . ( <i>Aeronautics</i> , Vol. 9, No. 3, October, 1943, p. 64.)
927	19661 Germany ...	<i>The Agfacolour Process for Films and Paper</i> . ( <i>Z.V.D.I.</i> , Vol. 87, Nos. 5-6, 6/2/43, p. 78.)

### METEOROLOGY (SOUNDING ROCKET, INSOLATION, Etc.).

928	18551 G.B. ...	<i>Altitude Sounding (Suggested Use of Sounding Rocket for Meteorological and Scientific Exploration of Atmosphere and the Investigation of Cosmic Radiation)</i> . (K. W. Gatland, <i>Flight</i> , Vol. 45, No. 1,829, 13/1/44, pp. 46-47.)
929	18696 Switzerland ...	<i>Weather Forecasting Based on Wireless Disturbance (Atmospherics)</i> . (J. Lugeon, <i>Flugwehr und Technik</i> , Vol. 5, No. 3, March, 1943, p. 77.)
930	19035 Canada ...	<i>Work of Canadian Meteorologists</i> . ( <i>Canadian Aviation</i> , Vol. 16, No. 5, May, 1943, pp. 84-86.)
931	19056 Canada ...	<i>Meteorology and Air Training</i> . (P. Berry, <i>Canadian Aviation</i> , Vol. 16, No. 9, Sept., 1943, pp. 49/51, 101.)
932	19062 Canada ...	<i>Review of the Canadian Meteorological Service</i> . (P. Perry, <i>Canadian Aviation</i> , Vol. 16, No. 9, Sept., 1943, pp. 101-102.)

ITEM NO.	R.T.P. REF	TITLE AND JOURNAL.
933	19708 U.S.A.	... <i>Insolation in the Polar Atmosphere.</i> (A. Court, Journal of the Franklin Institute, Vol. 235, No. 2, Feb., 1943, p. 169.)

## PHYSIOLOGY AND AVIATION MEDICINE

### (STEROID EXCRETION, DIVER'S EAR, Etc.).

934	18782 G.B.	... <i>High Frequency Therapy. Part V—Energy Absorption in Biological Media.</i> (W. O. Oliphant, Electronic Engineering, Vol. 16, No. 191, January, 1944, pp. 338-341.)
935	19071 G.B.	... <i>Literature of Penicillin and Similar Substances.</i> (Nature, Vol. 152, No. 3,869, 25/12/43, p. 747.)
936	19087 G.B.	... <i>Eyoscine Mitigates Sea-Sickness.</i> (Chemistry and Industry, No. 5, 29/1/44, p. 41.)
937	19206 G.B.	... " <i>Personal</i> " <i>Metal and the Compass (Effect of Metal Used on Fractured Limbs).</i> (Aeronautics, Vol. 9, No. 5, Dec., 1943, p. 68.)
938	19427 G.B.	... <i>A Study of Three Hundred Non-Selected Aviation Accidents.</i> (J. Aviation Med., Dec., 1942, Vol. 13, No. 4, pp. 256-261.) (A. J. Herbolsheimer, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, pp. 170-171.)
939	19428 G.B.	... <i>Investigations on Individual Variation of the Altitude Cramp Threshold. II—The Influence of Atmospheric Humidity on the Altitude Resistance of the White Mouse.</i> (Luftfahrtmedizin, 25/11/42, Vol. 7, Nos. 2-3, pp. 137-140.) (H. W. Denzer, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 171.)
940	19429 G.B.	... <i>Height Adjustment for 8,000 Metres Acquired at a Level of 2,000 Metres. A Report from the Rechlin Experimental Station of the Luftwaffe, dated 29th May, 1940.</i> (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 141-149.) (T. Benzinger and H. Döring, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 171.)
941	19430 G.B.	... <i>Research on the Influence of Oxygen Breathing on Alveolar CO<sub>2</sub> Tension in the Low Pressure Chamber.</i> (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 150-159.) (G. S. Schwepper, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 171.)
942	19431 G.B.	... <i>Experimental Investigations on Increased Venous Return in Oxygen Lack.</i> (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 260-268.) (J. Frey and F. Kuchle, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 171.)
943	19432 G.B.	... <i>The Action of Long Continued Oxygen Breathing on Man at Different Heights.</i> (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 272-291.) (H. Becker-Freyseng and H. G. Clamann, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, pp. 171-172.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
944	19433 G.B. ...	... <i>Hypoxæmia and Adrenalin Content (of the Blood)</i> . (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 292-297.) (G. Lehmann and H. F. Michaelis, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 172.)
945	19434 G.B. ...	... .1 <i>Simple Method for Determining the Maximum Pressure Produced in Valsalva's Experiment or in the Nose-Pharynx Experiment</i> . (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 269-271.) (R. Nordhoff, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 172.)
946	19435 G.B. ...	... <i>The Heat Regulatory Adjustment of the Organism in Fluctuating Climatic Conditions (Temperature, Humidity, Wind Velocity). II—Circulation and Gas Metabolism of Man in Different External Temperatures</i> . (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 237-259.) (R. Thauer and K. Wezler, Bulletin of War Medicine, Vol. 4, No. 3, November, 1943, p. 172.)
947	19436 G.B. ...	... <i>Man in Altered Gravitational Fields (Abstract)</i> . (Münch. Med. Woch., Vol. 90, Nos. 16-17, 23/4/43, pp. 279-284.) (H. V. Diringshafen, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, pp. 307-308.)
948	19437 G.B. ...	... <i>Some Physiological Problems of Aviation</i> . (Trans. and Studies, College of Physicians, Philadelphia, June, 1943, Vol. 11 (4th Ser.), No. 2, pp. 57-64.) (C. F. Schmidt, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, p. 308.)
949	19438 G.B. ...	... <i>Physiological Effects at Low Oxygen Tensions of Replacing Oxygen with Carbon Dioxide</i> . (Proc Soc. Exper. Biol. and Med., 1943, April, Vol. 52, No. 4, pp. 320-322.) (W. B. Youmans and others, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, p. 308.)
950	19439 G.B. ...	... <i>The Heat Regulatory Adjustment of the Organism in Fluctuating Conditions (Temperature, Humidity, Wind Velocity). I—The "Climate Chamber" for the Production of any Desired Climatic Conditions</i> . (Luftfahrtmedizin, Vol. 7, Nos. 2-3, 25/11/42, pp. 228-236.) (K. Wezler and R. Thauer, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, p. 309.)
951	19440 G.B. ...	... <i>Evacuation of Wounded by Air from the Battle of Guadalcanal</i> . (U.S. Nav. Med. Bull., Vol. 41, No. 4, July, 1943, pp. 917-922.) (T. T. Flaherty and others, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, p. 309.)
952	19441 G.B. ...	... <i>Night Vision</i> . (Canadian Med. Ass. J., Vol. 49, No. 1, July, 1943, pp. 17-21.) (D. Y. Solendt and C. H. Best, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, p. 306.)

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
953	19442 G.B. ...	<i>A Critical Study of Sea-Sickness Remedies.</i> (Roy. Nav. Med. Bull., No. 4, 1943, pp. 3-6.) (Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, pp. 306-307.)
954	19443 G.B. ...	<i>Diver's Ear (Otitic Barotrauma).</i> (Roy. Nav. Med. Bull., No. 5, 1943, pp. 13-14.) (Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, pp. 305-306.)
955	19444 G.B. ...	<i>Predisposition to Compressed Air Illness.</i> (U.S. Nav. Med. Bull., Vol. 41, No. 4, July, 1943, pp. 1044-1051.) (J. J. Thorne, Bulletin of War Medicine, Vol. 4, No. 5, January, 1944, pp. 304-305.)
956	19728 G.B. ...	<i>A Bibliography of Aviation Medicine.</i> (E. C. Hoff and J. F. Fulton, J. Roy. Aeronaut. Soc., Vol. 48, No. 398, Feb., 1944, p. 30.)
957	19781 U.S.A. ...	<i>I. Appraisal of Tests of Altitude Tolerance.</i> (A. L. Barach and others, Aviation Medicine, Vol. 14, No. 2, April, 1943, pp. 55-62.)
958	19782 U.S.A. ...	<i>II. Impairment of Emotional Control as a Test of Altitude Anoxia.</i> (A. L. Barach and others, Aviation Medicine, Vol. 14, No. 2, April, 1943, pp. 63-70.)
959	19783 U.S.A. ...	<i>Comments on Aviation Medicine for the Navy for 1942.</i> (J. C. Adams, Aviation Medicine, Vol. 14, No. 2, April, 1943, pp. 71-74.)
960	19784 U.S.A. ...	<i>Some Mental Aspects of Aviation Medicine.</i> (E. G. Reinartz, Aviation Medicine, Vol. 14, No. 2, April, 1943, pp. 75-83.)
961	19785 U.S.A. ...	<i>Psychological Factors in the Training of Aeroplane Pilots.</i> (J. R. Delucchi, Aviation Medicine, Vol. 14, No. 2, April, 1943, pp. 84-87.)
962	19786 U.S.A. ...	<i>The Hyperventilation Syndrome and its Importance in Aviation.</i> (H. C. Hinshaw and others, Aviation Medicine, Vol. 14, No. 3, June, 1943, pp. 100-104.)
963	19787 U.S.A. ...	<i>Decompression Disease of Bone.</i> (J. H. Allan, Aviation Medicine, Vol. 14, No. 3, June, 1943, pp. 105-111.)
964	19788 U.S.A. ...	<i>The Extent of Water Loss by Rats at Lowered Barometric Pressures.</i> (H. G. Swann and W. D. Collings, Aviation Medicine, Vol. 14, No. 3, June, 1943, p. 114.)
965	19789 U.S.A. ...	<i>Some Physiological Aspects of Parachute Descent from High Altitudes.</i> (K. E. Penrod, Aviation Medicine, Vol. 14, No. 3, June, 1943, pp. 119-125.)
966	19790 U.S.A. ...	<i>The Problem of Air Sickness.</i> (P. A. Campbell, Aviation Medicine, Vol. 14, No. 3, June, 1943, pp. 126-131.)
967	19791 U.S.A. ...	<i>Labyrinth in Aviation.</i> (H. Brunner, Aviation Medicine, Vol. 14, No. 3, June, 1943, pp. 132-150.)



- | ITEM NO. | R.T.P. REF.  | TITLE AND JOURNAL.   |
|----------|--------------|--|
| 968      | 19792 U.S.A. | ... <i>Study of the Effects of Aeroplane Transportation of 200 Patients.</i> (J. H. Tillisch and others, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 162-172.)  |
| 969      | 19793 U.S.A. | ... <i>Steroid Excretion and the Stress of Flying.</i> (G. Pincus and H. Hoagland, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 173-193.)  |
| 970      | 19794 U.S.A. | ... <i>The Organ Weight-Body Weight Ratios in Dogs Following Exposures to Discontinuous Anoxia.</i> (E. J. Van Liere and J. C. Stickney, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 194-199.)  |
| 971      | 19795 U.S.A. | ... <i>An Interesting Application of a Basic Science to Aviation Medicine (Study of Face Types in Regard to the Design of Oxygen Masks).</i> (F. E. Randall and A. Damon, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 200-205.)       |
| 972      | 19796 U.S.A. | ... <i>Observations on the Results of Indoctrination of Aviation Personnel in the Use of Oxygen Equipment in the Low Pressure Chamber at Pensacola, Florida.</i> (H. A. Smedal, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 206-210.) |
| 973      | 19797 U.S.A. | ... <i>The Treatment of Aero-Otitis Media by Redecompression.</i> (H. A. Smedal and others, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 211-215.)   |
| 974      | 19798 U.S.A. | ... <i>Present Trends in Teaching at the Army School of Aviation Medicine.</i> (C. E. Kossmann, <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 216-222.)   |
| 975      | 19799 U.S.A. | ... <i>Jump of 40,200 Feet by A.A.F. Medical Officer (for Testing Oxygen Equipment).</i> ( <i>Aviation Medicine</i> , Vol. 14, No. 4, August, 1943, pp. 223-225.)  |

#### MATHEMATICS.

- |     |              |   |
|-----|--------------|---|
| 976 | 18827 G.B.   | ... <i>Solution of Biquadratic Equations (Application to Aircraft Stability Problems, etc).</i> (W. S. Brown, <i>Aircraft Engineering</i> , Vol. 16, No. 179, January, 1944, pp. 14, 17.) |
| 977 | 18893 G.B.   | ... <i>The Measurement of the Residual Parameters of Variable Air Condensers.</i> (J. C. Simmonds, <i>Philosophical Magazine</i> , Vol. 34, No. 239, Dec., 1943, pp. 833-837.)            |
| 978 | 18894 G.B.   | ... <i>Units and Dimensions.</i> (H. Jeffreys, <i>Philosophical Magazine</i> , Vol. 34, No. 239, December, 1943, pp. 837-842.)  |
| 979 | 18895 G.B.   | ... <i>Corrigenda to Paper on the "Solution of the Equation <math>f'(x) = f(i/x)</math>."</i> (L. Silberstein, <i>Philosophical Magazine</i> , Vol. 34, No. 239, December, 1943, p. 850.) |
| 980 | 19348 U.S.A. | ... <i>Discussion of Paper on a Method of Interpolation.</i> (R. W. Coltman, <i>A.S.T.M. Bulletin</i> , No. 125, December, 1943, pp. 23-24.)  |

ITEM NO.	R.T.P. REF.	TITLE AND JOURNAL.
981	19565 G.B. ...	... <i>Trigonometrical Tables. Relationship of Arc and Chord.</i> (M. H. Sabine, <i>Mechanical World</i> , Vol. 115, No. 2, 979, 4/2/44, pp. 130-131.)
982	19706 U.S.A. ...	... <i>A Modified Treatment of the Iterative Method (for the Determination of the Natural Frequencies of a Vibrating System).</i> (E. Saibel, <i>Journal of the Franklin Institute</i> , Vol. 235, Feb., 1943, pp. 163-166.)