

### SHELTER POLICY PROVISION FOR EACH HOME

#### FUTURE COMPULSION PROPOSED

Recommendations regarding the proposal to provide sectional shelters for the population of vulnerable areas in their own houses are made in a report by Mr. David Anderson, LL.D., B.Sc., M.Inst.C.E., Mr. B. L. Hurst, M.Inst.C.E., and Sir Henry Japp, M.Inst.C.E., who were appointed by the Lord Privy Seal, Sir John Anderson, to consider the problem. The report was published last night as a White Paper (Cmd. 5932, Stationery Office, price 2d. net).

The following is a full summary of the recommendations:—

We would record our whole-hearted agreement with the Lord Privy Seal that the provision of a shelter in or in close proximity to the home of every citizen in vulnerable areas is a sound policy, and that such shelter should provide reasonable protection against blast and splinters from the near-by explosion of a medium-sized H.E. bomb and against the collapse of the super-structure.

(a) A sectional steel device is one method of providing such shelter. There are a number of such devices on the market and we consider that two or three standard types could be adopted which would satisfy the requirements and which would enable a large number of firms to adapt their plant to the production of one or other of the types with the least possible delay.

#### FOR FOUR TO SIX PERSONS

(b) Such a shelter should measure not less than 6ft. by 6ft. 6in. in plan and should not be less than 4ft. 6in. from the crown of the arch to the floor. This shelter would hold four persons for a short period and might even in an emergency hold six persons. It would, therefore, form the minimum shelter for the two-storeyed terraced house or cottage type of modern house, which on the average accommodates rather under four persons. The dimensions given are in our opinion the absolute minimum.

(c) The weight of such a shelter would be from 5cwt. to 7cwt. and the maximum weight of any one member would vary from 60lb. to 100lb.

In our judgment these shelters could not be distributed quickly and easily. For every 1,000,000 persons provided for the weight of metal to be handled would be from 60,000 to 80,000 tons or on the average 25,000 lorry loads. The steel must be distributed by lorries and must therefore be distributed in advance of an emergency owing to the claims upon transport at such a period.

(d) These shelters could be mass-produced and be capable of erection by two men of average strength and no special skill.

#### EASE OF EXIT

A shelter device of this kind, to be provided in large numbers, must not only satisfy public opinion. Undoubtedly most people would prefer to stay in their houses to take shelter, and though at first sight the device might seem to render this possible, the plain fact is that if they do so, within the protection of such a shelter, their chances of rescue are greatly diminished and the prospect of a lingering death increased if the house collapses.

It is the most fundamental requirement that a shelter and ease of exit from it should be such that if the house collapses there is no possibility of a steel shelter being a

the inclusion therein of an air raid shelter, of sufficient size to accommodate the inhabitants of the house in reasonable safety. Huge programmes of rehousing are being undertaken in our densely populated areas, which must all be considered vulnerable, and in course of time the affairs of bad housing will all be rebuilt, and to all to take cognizance of the air raid menace in new construction is, in our view, short-sighted, if not worse. We consider that the provision of air-raid shelters in better-class residential buildings is equally important.

In time of war essential workers who have been forcibly evicted by the destruction of their homes through fire or by high explosive bombs will of necessity be billeted, like soldiers in a war zone, in the most suitable and safest buildings available in the vicinity of their work. These may, and most probably will, be in the houses of the more well-to-do residents, many of whom will have been voluntarily evacuated, and for this reason we consider that the provision of an air raid shelter for every residential property should be compulsory.

#### PUBLIC SHELTERS

VII. When the problem of providing shelter in the home is solved there still remains the problem of shelter for persons caught in the street and for the worker passing between his home and the scene of his labour. We are of the opinion that the provision of providing public shelters in suitable basements adequately strengthened and provided with alternative exits, which was part of the Government policy before the crisis, should now be zealously pursued. We understand that the duty of making a survey of such shelters and arranging for same was laid upon the local authorities, but we consider that if the work is to be done promptly it will be necessary to organize a comprehensive scheme in which the professional bodies of the country will be called upon in conjunction with the local authorities and with the organizations of the public works contractors and the steel industry.

VIII. There are three points on which, in our judgement, a very clear pronouncement to the public is essential. (a) If the good will of the public in this problem of providing shelters is to be enlisted there should be a very clear understanding that there will be no penalization in regard to increased taxation and rating on account of the provision of air-raid shelter accommodation. In his speech in the House the Chancellor of the Exchequer on May 28 stated that there would be no such penalization.

(b) With regard to the provision of basement shelters in large shop and office buildings and in the larger premises, the Committee consider that building owners would be encouraged to provide permanently strengthened basements if it were common knowledge that the L.C.C. and other local authorities were willing to relax their by-laws for steel and other materials added to the basements of existing structures solely for the purpose of rendering them safe to withstand collapse of the building above and the Committee recommend that this should be arranged for.

#### CONDITIONS WAIVED

Two such matters which might be instanced are:— (i) That concrete fire cover encasement of structural steelwork added solely for the above purposes should be waived. (ii) That stresses not exceeding 10 per cent. above normal stresses might be authorized in the previously existing structural steelwork of such buildings, provided that such stress were solely due to the addition of the dead weight of added concrete structure.

(c) As regards pill-box or other external shelter accommodations the Committee submit that the following arrangements should be made in order to encourage private building owners to construct them at their own cost:— (i) That concrete fire cover encasement of structural steelwork should be dispensed with; (ii) that typical designs and estimates of cost should be prepared by the Government and issued to building owners. The Committee suggest that the relaxations of building regulations recommended above should form the subject of new by-laws, as otherwise every case would have to be dealt with by special application and grant of a licence which would not only cause much unnecessary work and delay, but would tend to discourage building owners from providing

### THE FUTURE OF SCOTLAND NEED FOR ECONOMIC PLAN

#### STABILIZING INDUSTRY

Proposals for a planned economic development of Scotland are made in a report published by the Scottish Economic Committee. This committee was appointed by the Scottish Development Council, in consultation with the late Sir Godfrey Collins, Secretary of State for Scotland, almost three years ago.

Sir Steven Blisland, the chairman, states that the committee thought it better in the present emergency situation to put forward a brief and practical statement of Scotland's economic and industrial difficulties, with suggestions for their amelioration, rather than to issue the technical studies which have been prepared. The committee offers its proposals "as a contribution towards a planned development of our national economy calculated to be of benefit not only to Scotland, which is naturally our primary concern, but also to Great Britain generally by making for more balanced and stable industrial conditions in the country as a whole."

#### EFFECTS OF THE WAR

Before the Great War, the report says, Scotland was in the position of giving a lead to other countries in shipbuilding, marine engineering, farming, the woolen industry (with the world-wide reputation of Scottish hosiery and tweeds), the jute industry, and sea fishing. Up to that period Scotland had proved capable of an almost unexampled process of adaptation to new circumstances and new requirements. The War, however, by creating new demands on Scottish heavy industries for armaments on a hitherto unprecedented scale, disturbed Scotland's economic and industrial equilibrium to an extent which has, 20 years after the Armistice, rendered recovery to the degree desirable a matter which should properly be regarded as of national concern.

National defence requirements, particularly in naval construction and the heavier industries, had to be met by Scottish industry to a very considerable extent, and Scotland's capital and labour had been deeply engaged in those directions in periods of crisis, and "slump" conditions had infallibly come on the termination of the defence orders. It was to be feared that this process would be repeated now. Moreover, the heavy industries were also dependent on export trade, and concentration on defence work diverted energies which should be expended on the maintenance and development of foreign trade.

#### PLANNED DEVELOPMENT

A broadening of the base of Scottish industry is necessary and the Economic Committee, in its opinion, contemplates several light industries accompanied by recommendations. The creation of the North Hillingdon Industrial Estate, where 120 factories are either built or in course of construction and 80 tenants have leased factories, most of which are in this direction. But this development should be regarded as only a beginning, as there are other areas in Scotland besides the special areas which are in need of a constructive development of light industries. Such a movement, the committee's opinion, cannot be left solely to individual enterprise, but should be forwarded by suitable steps on the part of the Government in the direction of a planned national development.

A planning authority should be established with a scope extending to all Scotland and

### MINOAN JEWELS FOR THE ASHMOLEAN

#### SIR ARTHUR EVANS'S GIFTS

FROM OUR CORRESPONDENT OXFORD, FEB. 1 From Sir Arthur Evans, during his 25 years of keepership of the Ashmolean Museum and since his retirement in 1908, the University of Oxford has received many notable gifts. But unquestionably the coping-stone of his benefactions to the newly arranged "Minoan Room" is the gift of his collection of Minoan seal-stones and gems, gold rings, and jewels.

The collection is far-famed and unrivalled. It embraces every period and class of the Minoan gem-cutter's art, prisms, button-seals, cylinders, and ring-bezels in steatite, cornelian, ivory, and other materials, with photographs, scenes of ritual, bull-fighting, and other sports. Then there is the great gold ring of Nestor, with several other gold rings and a group of gold beads, known as the Treasure of Thisbe, all engraved with scenes of ritual, combat, and ancient legends. It is hardly possible that any series so rich and comprehensive can be formed again.

Conspicuous among previous gifts by Sir Arthur Evans are the great collection of stone and bronze implements, furnished by his father, Sir John Evans, which was presented in 1927, and the equally important sets of Anglo-Saxon jewelry and other objects, also from Sir John Evans's collections, presented in 1908. Sir Arthur Evans also augmented the classical antiquities by gifts of Greek bronzes, and a large number of coins, Greek, Roman, and Anglo-Saxon, as well as English medals, to the University's cabinets, he marks with other recent contributors whose gifts have made necessary the building of the second numismatic room, lately completed.

#### EXCAVATIONS AT KNOSSOS

The feature of his long years of archaeological activity is admittedly his excavations in the Palace of Minos at Knossos. The results of which formed such an active feature of the exhibition held in Burlington House in 1936. From time to time during those excavations the Ashmolean Museum received from him examples of his discoveries, so that the Minoan collection at Oxford has long been recognized as the most comprehensive and important outside Crete itself.

One of the recent alterations carried out in the museum has been the division of the largest archaeological gallery into three sections, in one of which a new installation of the Minoan collections has been arranged by Sir Arthur Evans himself, assisted by Miss Mercy Money-Coutts. The older collections have been supplemented by a group of cast-lead photographs, diagrams, and wax-colour drawings, and to enhance the effect the new gallery has received the most exquisite figure of the Boy-God, which, with other original figurines, smaller antiquities, and fine examples of pottery, he has generously transferred to the museum from his cabinet at Youghly. By the latest gift the Ashmolean Museum has received not only a very notable treasure, but one significant alike of the donor, his work, and his incomparable flair as a collector.

### CIVIL AIR GUARD TRAINING

#### APPEAL TO EMPLOYERS

The commissioner of the Civil Air Guard issue the following statement:— The recent announcement regarding the expansion of the Civil Air Guard indicates that the organization has

### The Services ROYAL NAVY

#### H.M.S. RAMILLIES

The battleship RAMILLIES will be recommissioned to-day with a Portsmouth crew at Devonport for service in the 1st Battle Squadron, Mediterranean Fleet. She will leave for her station on February 16, arriving at Malta on February 24. No addition to the Fleet is involved, since the RAMILLIES takes the place of the REPULSE, which returned home in the autumn.

Captain H. T. Baillie-Grohman, D.S.O., O.B.E., late in command of the ST. VINCENT, boys' training establishment at Gosport, assumed command of the RAMILLIES on January 5, and the executive officer is Commander W. R. C. Leggett, who attended the Staff College course during 1938.

#### HOME FLEET CRUISE

The cruisers SOUTHAMPTON and SHEPHERD, the former flying the flag of Rear-Admiral G. F. Gibbs, and the latter of C.V.O., will leave Gibraltar to-day for a visit to Lisbon from February 3 to 8, accompanied by the submarines PORPOISE and STARFISH. The fleet flagship NELSON and the AURORA, destroyer flagship, will leave on Saturday for Malta, where they are to be from February 8 to 15. The battleship RESOLUTION, which has been in dock, will leave Sheerness on February 11 for Gibraltar.

#### AWARDS FOR INVENTIONS

The following awards to naval personnel have been approved by the committee of the Lott Naval Trust Fund for the encouragement of fighting efficiency in the Fleet:— A West, chief ordnance artificer, modification to shell tray, £10; J. W. Yarwood, ordnance artificer, modification to 4.7in. gun mounting, £75; P. H. Jarvis, chief engine-room artificer, and H. E. Barber, petty officer, device to assist in drill of gun crew, £5 each; Lieutenant-Commander J. Holmes, R.N., and W. S. C. Darnall, chief ordnance artificer, plotting instrument, £100 each; T. Gillett, chief ordnance artificer, modifications to 8in. gun mounting (supplementary award), £10; T. Gibbs, chief ordnance artificer, testing device for torpedoes, £15; Commander R. C. Boyle, R.N., switch gear modification, £10; and A. Woodliffe, chief petty officer, telegraphic, instructional apparatus, £25.

#### ADMIRALTY SURGEONS

The following appointments as Admiralty Surgeons have been approved:— Chester, Mr. W. J. A. Russell; Bradford, Mr. A. Mitchell; Rugby, Mr. H. J. Beddow; Maryport, Mr. F. W. Clark; Great Broughton and Cockerham, Mr. A. G. Abraham; and Douglas, Isle of Man, Mr. A. R. McPherson.

#### WEST INDIAN CRUISE

H.M.S. DENDEE, Captain C. C. A. Allen, which has been cruising in the West Indies during the past month, will leave Barbados tomorrow to visit Georgetown, British Guiana, from February 7 to 7, and Trinidad from February 9 to 14.

#### DENTAL SURGEONS

Mr. A. R. Hayes, L.D.S., King's College Hospital, and Mr. K. S. Armstrong-Lamb, L.D.S., Leeds Dental School, have received appointments as surgeon lieutenants (D), R.N., for short service.

#### MOVEMENTS OF SHIPS

CODRINGTON left Portland for Portsmouth (Jan. 31). DARING left Swallow for Army (Jan. 31). DEPTFORD left Portland for Portsmouth (Jan. 31). DEPTFORD left Bournemouth for Muzest (Jan. 31). EKSMO arrived Portsmouth (Jan. 31). GUYARD left Portland for Lisbon (Jan. 31). HAZARD arrived Portland (Jan. 31). HOSTILE left Gambia for Marseilles (Jan. 31). IRON DUKE, UNDIS, WINCHESTER, WESTLEA, CODRINGTON, and INDIAN SUMMER arrived Portland (Jan. 31). LONDONERY left Durban (Jan. 30). LOWESTOFT arrived Tientsin (Jan. 31). NYMAN left Gibraltar for Malta (Jan. 30). ROCHER arrived Jacksonville (Jan. 30). ROYAN left Portland for Portsmouth (Jan. 31). ROCHER arrived Salanba Bay (Jan. 30). SUGENYA and SKENA left St. Kitts (Jan. 30). SWAN left Portland for Lisbon (Jan. 31). STARFISH left Portland for Lisbon (Jan. 30). THANEY arrived Swallow (Jan. 31).

#### NAVAL APPOINTMENTS

The following appointments have been made:—

### HELPING THE AIR PILOT

#### NEW WIRELESS BEACON

Among a large variety of requisites shown at the exhibition opened yesterday at the Central Hall, Westminster, in association with the conference of the Aerodrome Owners' Association were several sets of apparatus which show the progress that is being made towards bringing aircraft safely into port in conditions of poor visibility. One of these was a new piece of wireless beacon apparatus. Others were examples of the lights designed to be set flush with the aerodrome surface to light a landing strip for the benefit of aircraft arriving at night or in fog.

The exhibition and conference were opened by Sir Kingsley Wood, Secretary of State for Air, and at the opening ceremony Lord Londonderry, president of the association, presided. The new wireless beacon, produced by the Marconi Company and called the Marconibeacon claims particular advantages over other types of beacon which have hitherto held favour. The lateral radiation from it is said to have been notably reduced, and this is a matter of some importance, since it is freely asserted that the two wireless beacons at Croydon and Heston were operating at the same time the lateral interference from the one would put the other out of action.

The new beacon employs a series phase aerial which not only overcomes this difficulty but also has the characteristic of projecting most of its beam forward along the line of the aircraft's approach and so helps to afford a distinction between the approach on the main bearing and that of the reciprocal bearing along which a pilot comes when he has overshot the aerodrome.

#### SIMPLIFIED RECEIVER

This company has also produced a simplified receiving apparatus which should lighten the duties of the pilot in setting his set for use with the beacons at his various ports of call. The receiver also has the merit of being designed for convenient stowing in the structure of the aircraft.

Two sets of runway lights are on exhibition, one having been produced by Messrs. Chance Brothers and Co. and the other by the General Electric Company. In principle the flash lights are similar, the idea being to set the light, its transformer, and the thick glass lens which contains the gas, in a concrete foundation so that the whole unit may be lifted out on the rare occasions when repairs become necessary. One type of light is already being tried at Manchester, and the other will have its trial at Heston.

The exhibition covers all aspects of aerodrome management and is fully representative of the industries which now take pains to provide the aerodromes with the equipment and accessories they need.

A conference, which held a private sitting yesterday afternoon, is attended by some 170 delegates, among whom were representatives of 38 municipal authorities. In opening the conference Sir Kingsley Wood said it was the noblest of the Air Ministry's aims that the greatest possible use of civil aerodromes. It was a good thing, if an aerodrome was not fully used, that it should be employed for the purposes of the R.A.F. Volunteer Reserve. A further 23 new aerodromes would be needed for the expansion of the Volunteer Reserve.

### CARDIFF AND PACIFIC PORTS

#### FROM OUR OWN CORRESPONDENT

CARDIFF, FEB. 1 A direct service between Cardiff and the Pacific ports was inaugurated here to-day with the arrival of the Martin Bakke at Reach Dock with a cargo of fresh fruit and canned fruit and zinc spelter from Seattle. A large company watched the unloading of the vessel, and the LORD MAYOR (Alderman W. G. Howell) commended the new enterprise, which, he said, would receive the fullest support. CAPTAIN EINER HETLAND, master of the Martin Bakke, paid a high tribute to the zeal and willingness with which the vessel was discharged, while

### VOLUNTEERS FOR SERVICE

#### SOUTH WALES RESPONSE

FROM OUR OWN CORRESPONDENT CARDIFF, FEB. 1 Early reports from the more populous areas indicate that there has been an encouraging response in South Wales to the national service appeal. Mr. R. Pierce Jones, Divisional Controller for Wales of the Ministry of Labour, informed the Cardiff National Service Committee yesterday that there had been a steady stream of people seeking information and guidance, and it was hoped to set up advisory panels in a few days.

In Cardiff the earliest response was made by volunteers for A.R.P. work. By Monday morning several hundreds of application forms, detached from the official handbook, had been received by post at the department in charge of registration at the City Hall, and numerous callers presented themselves during the day. Across the road recruiting for the special police services and auxiliary firemen went on at the Law Courts, and the national service appeal is expected to give a fillip to this work, which has been going on since the crisis last September. Women were offering themselves readily for Red Cross work and for the auxiliary services of the Territorial Army. At the Glamorgan headquarters of the Territorial Army Association it was stated that there had been a stimulus to recruiting. In Swansea inquiries were coming in in good numbers, and the response in Newport was encouraging.

No time is being lost in setting up the machinery for the national service scheme. Area committees have been appointed in every county and county borough throughout Wales, with Ministry of Labour officers as area secretaries. Some of these have already met and have laid down broad lines of working; others will meet in the course of this or the coming week.

#### EAST ANGLIA AND BRISTOL

It is apparent that the satisfactory response is general throughout the country. In East Anglia there are indications of keenness to serve. The Advisory Committee for Norwich, which embodies every phase of civic life, has already met, and efforts are being put forth to ensure the success of the movement. In stimulating recruitment the committee are endeavouring to maintain a proper balance in meeting the needs of the various services. It is expected that large employers will give facilities for A.R.P. training to those of their employees who are over a certain age.

In Bristol hundreds of applications for enrolment have been received by the local secretary of the National Service Committee, while at the A.R.P. centre volunteers are coming forward in large numbers. As it is stated, however, that there are certain areas of the city from which the response has not been so good. The appeal in Bristol is for 11,500 volunteers for A.R.P., 1,000 for the special constabulary, 1,000 for Territorial Army of the Royal Air Force, and 465 for the Royal Air Force Reserve.

#### TECHNICAL UNITS

### INQUIRIES FROM SECONDARY SCHOOLS

The call to national service has been well responded to for military units and for auxiliary service with and for the Army. Enlistments have come freely and tradesmen for the technical units are coming forward well. There are many inquiries about the grading of men for technical units, and a fitter, in which non-technical men can have workshop training to qualify as fitters. There have also been inquiries from secondary schools about the direct enlistment of boys at the new age of 16 for trade training. The Territorial Army has added a fresh batch of men whose numbers go into four

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