

The maintenance of the supply of Bank Notes and Dividend Warrants, as well as the Bank's many other printing requirements during the war, was made possible by the application of two principles, simplification and evacuation.

The production of Bank Notes was simplified by the substitution of Offset Lithography for the Letterpress and Plate Printing, thus enabling the whole of the front of the Note to be printed in one operation. ^(except the numbers) The omission of the process of [^] Plate Printing involved a loss of security, to say nothing of the less attractive appearance of the Notes, which had been immensely enhanced by the strength and sharpness of the engraved line and the gradation to be obtained by variations in the depth of the engraving. It would have been impossible to prevent the loss of security had it not been for the device of embedding in the paper, during the process of manufacture, the now well-known opaque strip of metal which, in addition to the already existing watermark, ^{provides} ~~provides~~ an almost insuperable problem ^{to} ~~for~~ the forger. The process of plate printing required the spending of much time in preparation for (and also subsequent to) printing, a large staff and considerable space for heavy machinery of a special type which it was difficult to replace.

The opportunity of effecting the economies in many different directions at the same time was eagerly seized as a first contribution to the solution of wartime problems.

Overton
The saving of time in production was important in itself, but the saving of space and staff contributed greatly to the second principle involved, evacuation, as the shadow factory that it would be necessary to build might be smaller and the difficulties of billeting staff in a country district lessened. The decisive factor in fixing ^{the} ~~the~~ location of the shadow factory was proximity to the paper supply, and in June 1938 a site was decided upon on land which was the property of the Portal family, adjacent to their mills at Overton. Another advantage of this proximity was the ease with which ^{supplies} ~~supply~~ of steam, electricity and water

might be obtained from the existing installations in the mill. In order that the Bank's connection with the project should remain secret all the preliminary arrangements for the building operations were carried out by Messrs. Portals, so that in the late autumn of 1938, when the site was cleared and foundations laid, the work was ostensibly to provide an additional stockroom for the paper mills.*

It was at this time that the Bank decided to provide emergency accommodation for the Dividend Preparation Office in another building similar to and adjoining the one in the course of erection, where they would occupy, as they had since 1928, premises side by side with the Printing Works, a convenient arrangement during the time when the individually printed Dividend Warrants necessitated a certain amount of liaison between the two Departments; though, since the mechanisation of stock accounts, the need for close co-operation had not been so great. In June 1939 both buildings were finished.

At the end of August 1939, when war was certain, the Dividend Preparation Office moved to Overton, ~~and the subsequent departure of the Record Office and the Intellers Office left only the Printing Works and the Works Department in possession of St. Luke's.~~ On the 3rd September the staff already earmarked were despatched to Overton, where the production of Bank Notes and the printing of Dividend Books and Warrants for the mechanised stocks began with little delay. The Warrants for the remaining, unmechanised stocks had, on account of the special machinery and the enormous weight of type concerned, to be printed at St. Luke's, and caused a certain amount of apprehension in the minds of the management as to what would happen if the plant in question were wiped out before the final printing. Apart from this work and other essential printing, including the millions of forms urgently required by the Foreign Exchange Section, the work at St. Luke's was reduced to a minimum. Bank Note production ceased entirely and the staff thus

rendered

* Proposals: Court (29.12.1938)

rendered redundant stood by in their own homes.

Overton

The undermentioned machinery was installed in the factory at Overton before or in the early days of the war:-

Lithographic Offset Machines

Six (second-hand) purchased from Co-operative Societies at Glasgow and Manchester.

Two "Fast Five" machines)
Two Crabtree machines) Purchased at a later date

Miehle machines for numbering

Six machines purchased for the purpose as well as four guillotines, three lithographic flat bed presses for plate making and other ancillary machines.

Towards the end of August 1939 a communication was received from the Home Office, with preliminary instructions for camouflage; and on the 1st September a telegram from the Air Ministry saying that the process must be completed immediately. The work was done in conjunction with the camouflaging of Overton Mill, at a cost to the Bank of £650. Following correspondence lasting nearly two years with the Director of Camouflage the work was approved and a Government grant received. By this time, however, it had been necessary to renew the camouflage at a cost of £485. In 1943 a most elaborate scheme of camouflage to the same buildings was executed at a cost of £2,400. Not long after its completion the Ministry said that the buildings in question need no longer be camouflaged at all.

Bank Notes

The ~~first~~ Bank Notes produced at Overton were transported daily to the Bank, by lorry attended by an armed escort in a car. £1 and 10/- notes remained in short supply and continued in circulation until dirty and dishevelled. In the absence of the expected air activity

activity production was resumed in London and full production (in London and at Overton) soon reached almost pre-war figures; and delivery was made from St.Luke's from January 1940. Meanwhile the staff had almost halved (1,350 in 1939 at St.Luke's and 700 at St.Luke's and Overton in 1940).

Paper

In 1940, when the risk of invasion was at its height, Portals conceived a bold plan whereby the manufacture of security paper (and the retention of their considerable Indian business) might be assured. Two paper making machines from Overton Mill were dismantled and transported to Canada, but the expense and difficulty of getting suitable premises for their installation rendered the plan uneconomical. It eventually proved unnecessary and the machines were brought back to their original home. Incidentally these machines were of the highest value in coping with the heavily increased demand for security paper in the following years. The first of the exceptional demands for currency was for ^s5/- and ^{s d}2/6 Bank of England Notes to cover a possible shortage of coin. The notes were, of course, never issued.

Staff

As elsewhere within (and outside) the Bank the more acute staff problems were those of quality rather than of quantity. Despite the considerable saving of staff resulting from the simplification of Bank Note printing, shortage of labour did become, it is true, an extremely serious matter. Personnel were called up as their age groups became due for service and although reservations were granted in many instances the staff of essential workers fell to a very low ebb. On occasion, the General Works Manager would be invited to attend a special committee of the Ministry of Labour, who would express sympathy and grant priority in the matter of women workers, the shortage of whom was the most serious trouble. This priority, however, translated by the local Labour Exchange, would materialise in the arrival of a batch of women, some of whom were physically or mentally incapable of doing the required work, and others who registered their distaste for their new employment by

giving

giving it up after a short trial.

A.R.P.

St. Luke's' air raid precautions naturally encountered their own problems, but the principles on which the staff were trained followed those of Head Office. The ceilings of the shallow basements were reinforced and supported by timbers, while the staff were trained by practice evacuations from Machinery Halls, Work Rooms and offices to such protection as these basements afforded. First Aid posts were established and the existing squads of trained personnel were augmented by volunteers who soon qualified in the practice of first aid, while anti-gas precautions were made familiar to the staff by means of lectures and drill. At the same time there was instituted a squad of men who were to augment the existing peace-time Night Guard, ^{and} in so far as fire fighting was concerned this organisation developed through expert leadership and the keenness of the personnel into a private fire brigade forming a unit of the N.F.S. From an observation post, built on the highest point of the Dividend Preparation Office, teams could be directed with minimum delay to each outbreak of fire as it was observed, and to this body no doubt St. Luke's owed its almost complete immunity from the severe damage by fire suffered on all sides. Sandbagging and the erection of baffle walls completed the precautions against attack from the air; and A.R.P. officials proceeded to enforce their numerous regulations.

Master plates and irreplaceable documents were triplicated and deposited at ^{Head Office and} the Leeds Branch of the Bank of England and, in order to provide a further safeguard to production in the event of the failure of both St. Luke's and Overton, a stand-by arrangement was made with a firm of lithographers*.

The

* John Waddington Limited, to whom the Bank paid £6,000 a year for the service until the end of the ^w year. A Strong Room holding over 6,000 reams of paper was specially constructed in Waddington's works, guarded permanently by a force locally recruited.

The respite afforded by the absence for a full year of air offensive offered an opportunity to prepare for the defence of St.Luke's against the dangers of possible invasion. In spite of the fact that such an event seemed most unlikely at the time every precaution had nevertheless to be taken. Defence devolved upon a "Works" unit of the Home Guard, which was raised from the staff of the Printing Works and of the Night Guard. A scheme was evolved which provided strong points to be manned in the case of need. Barbed wire entanglements were placed ~~at~~ⁱⁿ all vulnerable areas and heavy timber and barbed wire were held in readiness to obstruct each of the gateways giving admissions to the site. These measures of defence were completed and had been finally inspected on the morning of the 17th June, the day on which the B.B.C. announced the first news of the fall of France.

Plans for the mobilisation of machinery, for the sequestration of completed and partly printed documents and for the safeguarding of supplies of materials were ready to be put into practice; and much had been done to lay in stocks and secure a continuity of supply.

Soon after the beginning of the enemy air offensive on London the works of Messrs.Waterlow & Sons were badly damaged and the whole of the London works of Messrs.De La Rue were destroyed. These two firms carried on in other premises, and in a very short time were bearing their share of the daily increasing volume of work. St.Luke's, although it suffered considerable damage from time to time, was fortunate and production was never interrupted by war damage for more than a few days at a time. The factory at Overton did not go unscathed, and although deliberately removed from the principal target, was threatened at an earlier date than St.Luke's. St.Luke's, however, had not long to wait, and sustained damage by blast on the 8th September; and on the following night the boiler house received a hit. Throughout the whole of the Battle of Britain incendiary bombs fell almost nightly on St.Luke's but were successfully dealt with by the fire fighting force.

On the 26th March 1941, Overton again suffered assault from the air and the Bank's factory considerably damaged by blast. St. Luke's suffered further damage later in the spring.

The following statements of notes printed and delivered may at first sight appear to make curious reading in view of the very large growth in the circulation. But it must be remembered that they refer only to new notes; and that every possible economy of issue was effected during the war: the re-issue of notes was carried to lengths only dictated by much lower standards of cleanliness and durability than the banks (including the Bank of England) usually follow*.

*See also "Bank Notes". The average life of a 10/- note^s increased from 4 months in 1938 to 10 months in 1945; and that of a £1 note from 4 to 22½ months.

DELIVERIES FROM ST. LUKE'S AND OVERTON TO HEAD OFFICE AND BRANCHES
DURING THE YEARS 1938, 1940, 41, 42, 43, 44, 45.

10/-

£1

1938

| | | | |
|-----------------------------|--------------------|--------------------|-------------|
| From St. Luke's | 200,095,000 | 372,065,000 | |
| From St. Luke's to Branches | <u>126,205,000</u> | <u>228,745,000</u> | |
| Total | 326,300,000 | 600,810,000 | 927,110,000 |

1940

| | | | |
|--------------------------|------------------|------------------|-------------|
| From St. Luke's | 113,610,000 | 264,600,000 | |
| From Overton | 136,355,000 | 238,705,000 | |
| From Overton to Branches | <u>7,705,000</u> | <u>9,515,000</u> | |
| Total | 257,670,000 | 512,820,000 | 770,490,000 |

1941

| | | | |
|--------------------------|----------------|------------------|-------------|
| From St. Luke's | 106,365,000 | 207,270,000 | |
| From Overton | 119,385,000 | 238,455,000 | |
| From Overton to Branches | <u>945,000</u> | <u>1,575,000</u> | |
| Total | 226,695,000 | 447,300,000 | 673,995,000 |

1942

| | | | |
|-----------------|--------------------|--------------------|-------------|
| From St. Luke's | 57,120,000 | 209,790,000 | |
| From Overton | <u>159,390,000</u> | <u>319,410,000</u> | 745,710,000 |
| Total | 216,510,000 | 529,200,000 | ↓ |

1943

| | | | |
|-----------------|--------------------|--------------------|-------------|
| From St. Luke's | 74,340,000 | 248,220,000 | |
| From Overton | <u>166,320,000</u> | <u>332,640,000</u> | |
| Total | 240,660,000 | 580,860,000 | 821,520,000 |

1944

| | | | |
|-----------------|--------------------|--------------------|-------------|
| From St. Luke's | 26,880,000 | 188,265,000 | |
| From Overton | <u>169,155,000</u> | <u>339,885,000</u> | |
| Total | 196,035,000 | 528,150,000 | 724,185,000 |

1945

| | | | |
|-----------------|-------------------|--------------------|-------------|
| From St. Luke's | 149,730,000 | 429,030,000 | |
| From Overton | <u>93,345,000</u> | <u>264,285,000</u> | |
| Total | 243,075,000 | 693,315,000 | 936,390,000 |

