Oct. 4, 1949. A. E. THOMPSON ET AL 2,483,446

TELEPRINTER

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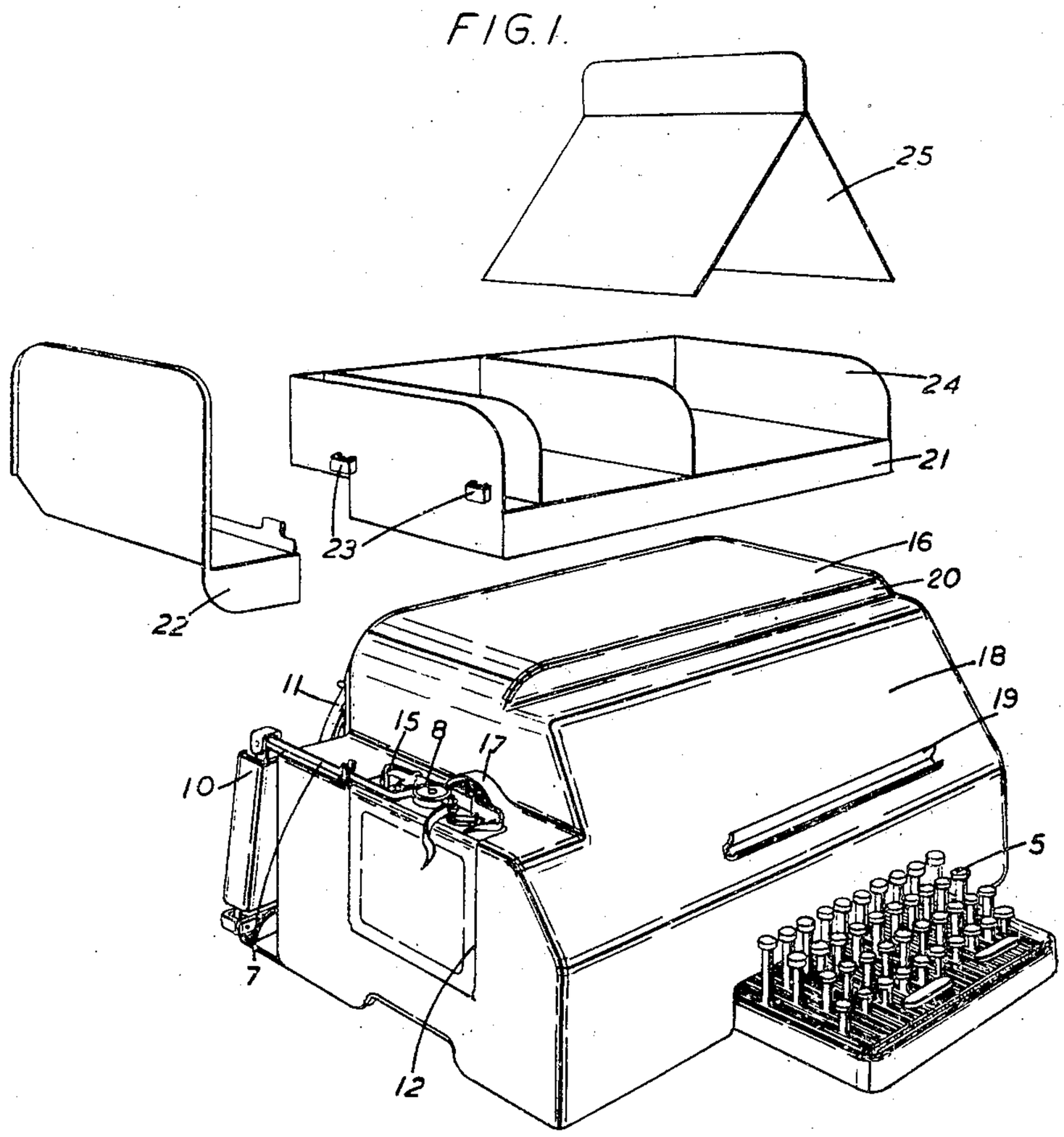
FIG. 1.



Inventor
ALFRED EDWARD THOMPSON
REGINALD DENNIS SALMON
By
Robert Harding Jr
Attorney

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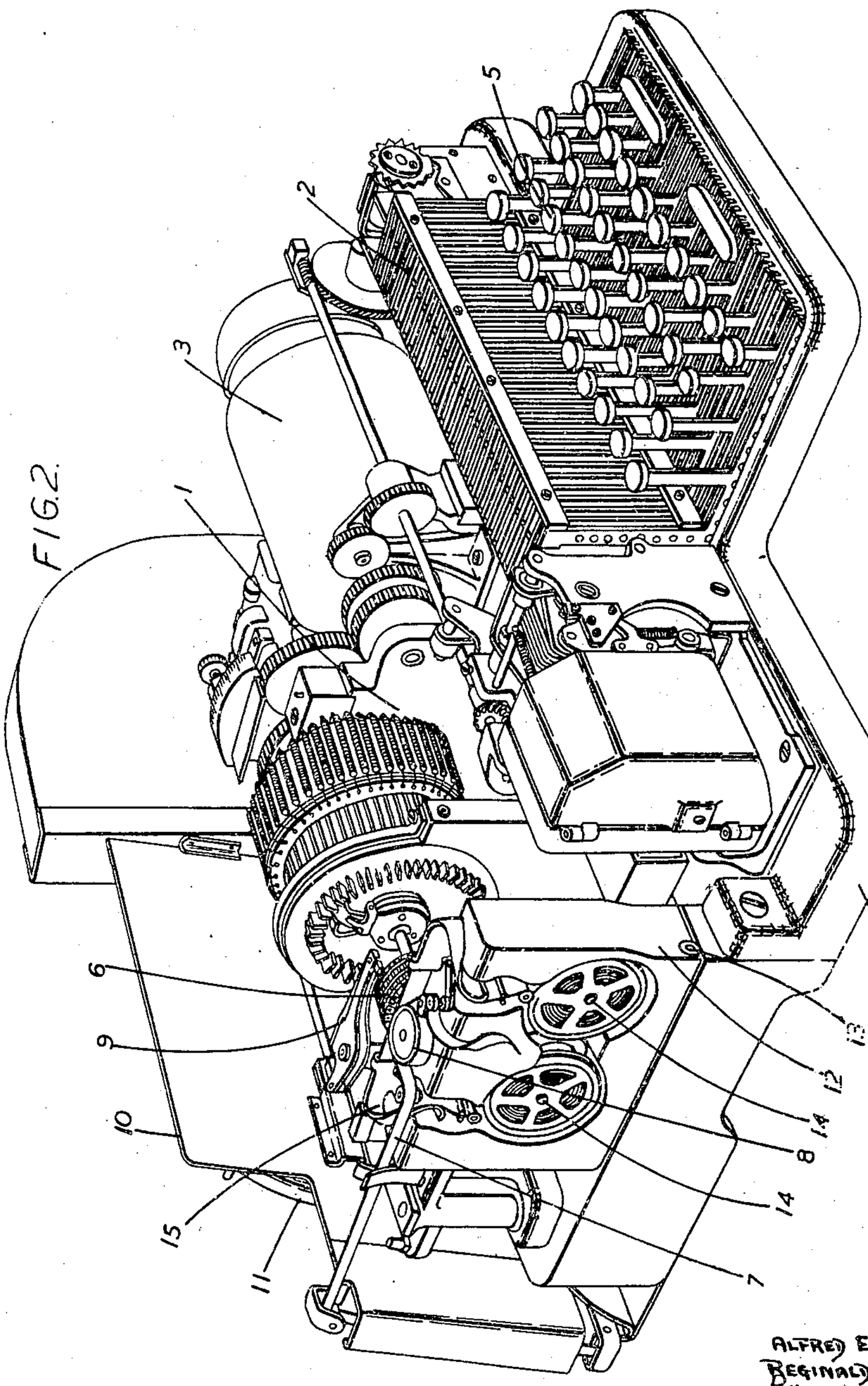
FIG. 2.



Inventor
ALFRED EDWARD THOMPSON
REGINALD DENNIS SALMON
By
Robert Harding Jr.
Attorney

Patented Oct. 4, 1949

2,483,446

UNITED STATES PATENT OFFICE

2,483,446

TELEPRINTER

Alfred Edward Thompson and Reginald Dennis Salmon, Croydon, England, assignors to Creed and Company Limited, Croydon, England, a British company

Application May 5, 1945, Serial No. 592,172
In Great Britain April 7, 1944

4 Claims. (Cl. 178—80)

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This invention relates to the arrangement of apparatus at a teleprinter station.

The introduction of teleprinter systems for the handling of public telegraph traffic has resulted in revolutionary improvements in the lay-out of telegraph instrument rooms and the development of a wide range of labour-saving devices. These measures were taken to speed up the collection and distribution of traffic and, in particular to achieve a substantial reduction in the non-productive time of teleprinter operators.

On the average, public telegrams contain about twenty words, and as operators can maintain a transmission speed of fifty words per minute or more, that the theoretical traffic-carrying capacity of teleprinter systems is above 150 telegrams per hour. This output cannot be attained in practice, however, because the operator is prevented by the nature of the traffic from transmitting continuously for long periods. The telegraph forms must be deposited one by one in a traffic receptacle and circuit particulars must be entered on every form. Telegrams awaiting transmission must be arranged in order of priority and the operator must also deal with the correction of any errors detected in incoming telegrams.

It is evident, therefore that any facility which effects a reduction in the transmission time lost by these message handlings is of considerable value.

Similar considerations also apply to a receiving operator, particularly when teleprinters are operated on a duplex basis. In addition to affixing the paper tape, on which the messages are printed, to telegraph forms, it is also the duty of this operator to replenish the supply of paper tape and, when necessary, to fit a new ink ribbon.

An object of the invention is to provide a teleprinter station arranged in such manner as to facilitate the performance of the various duties of the operator so that the time occupied by these duties is reduced.

According to the present invention a telegraph station comprises a tape teleprinter having a paper roll holder mounted in a readily removable manner in the rear of the machine and externally to the cover and having the printing point at one side of the machine and also external of the cover.

With such an arrangement the paper may be fed through the machine without opening the cover and the time taken for this and for detachment of lengths of tape to be affixed to telegraph forms is also considerably reduced.

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Further the ink ribbon mechanism is so mounted that the ink ribbon may be replaced without opening the cover. By arranging the printing point at the side of the machine the various tasks referred to may be performed by the operator whilst seated in normal position by the keyboard of a machine for duplex operation.

The cover of the machine is preferably so constructed as to support traffic trays.

One embodiment of the invention is shown in the accompanying drawings in which:

Fig. 1 is a perspective view of a teleprinter combined with a keyboard transmitter such as may be used for duplex operation, with the cover in position on the machine and with the arrangements for a teleprinter station according to the invention.

Fig. 2 is a view of the machine with the cover removed.

Referring to Fig. 2 of the drawings a teleprinter station comprises a receiving teleprinter generally denoted by the reference numeral 1 and a keyboard transmitter 2 driven from a common motor 3 in well known manner and mounted on a common base plate 4. The keyboard 5 is placed at the front of the machine, and the station is arranged for duplex operation in well known manner.

The receiving teleprinter is constructed and operates generally in the manner described in British specification No. 228,842. The typewheel 6 is, as described in that specification constructed with movable type, struck against a tape 7 passing round a printing platen 8 by a printing hammer 9.

As shown in the drawing the type wheel 6 is located at the left hand side of the machine. A supporting plate 10 for a tape roll holder 11 is removably mounted in the left hand portion of the rear of the machine in the manner described and claimed in co-pending U. S. application No. 592,171, filed May 5, 1945, now abandoned.

The printing platen 8 is mounted on the exterior of a frame 12 hinged at 13 to the base 4. The paper feeding mechanism and the spools 14 for feeding and reversing the feed of an ink ribbon 15 are mounted on the interior of frame 12 as described in co-pending U. S. application No. 589,247, filed April 19, 1945, now Patent 2,480,165, patented Aug. 30, 1949.

As shown in Fig. 1, cover 16 is provided with two apertures, one for the keyboard 5 and another for the frame 12 and is shaped with a

portion 17 fitting over the upper part of the typewheel. Thus when the cover 16 is over the machine there is left a small aperture under the portion 17 through which the selected type on the typewheel may be struck against the ink ribbon 15 and paper tape 7.

It will be seen that with this arrangement the ink ribbon spools can readily be changed by the operator when sitting at the front of the machine, since the frame 12 can be swung outwards on its hinge 13, whilst the supporting plate 10 can be grasped by the left hand of the operator and pulled out in order to replace a fresh roll of tape in the tape roll holder 11.

The front portion 18 of the cover 16 is sloped to serve as a message desk, a support 19 for matter to be transmitted being fixed to the cover. The top of the cover 16 is flat and is formed with short vertical sides 20 so that it serves to hold a traffic tray 21 divided into several compartments. A further tray 22 may be supported by being hooked on to hooks 23 in the side of tray 21. The right hand compartment 24 may be wider than the other compartments and assigned to outgoing traffic. An inverted V-shaped strip member 25 carrying along its top edge a station indicator may fit into this compartment thus dividing it into three receptacles, which may be allocated as follows: right hand sloping side for new traffic to be transmitted, left hand sloping side for traffic sorted into correct order of priority for transmission, flat bottomed space between the two sloping sides for traffic that has been transmitted and is awaiting acknowledgment by the distant station.

This arrangement of message trays on the cover of the machine facilitates the handling of the traffic in an expeditious manner.

When the station is closed the inverted V strip 25 may be turned on its side thus preventing telegrams being placed into the receptacles for outgoing traffic and giving an indication that the station is closed.

What is claimed is:

1. A teleprinter machine comprising, a plurality of individually movable type face bars mounted in a circular array to form a type wheel, means to support said wheel for rotation about a horizontal axis, a printing hammer for engaging a selected type face bar with which it is in alignment to reciprocate said bar in a horizontal direction, a motor and a motor-controlled selector mechanism for said type face bars for bringing a selected type face bar into operative alignment with said hammer, a cover member for said machine substantially completely enclosing said type wheel, said selector mechanism and said motor, said cover member having a small window disposed in a substantially vertical plane adjacent the ends of said type face bars to permit a selected type face bar to protrude horizontally therethrough when struck by said hammer, and a printing platen external of said cover and mounted adjacent said opening for rotation around a vertical axis.

2. A teleprinter machine according to claim 1 in which said printing hammer, said motor and said selecting mechanism are mounted on a frame entirely enclosed by said cover member, means for supporting a tape supply reel external to said cover, and means for supporting and feeding the tape from said reel between said opening and said platen, said tape being located entirely external to said cover.

3. A teleprinter machine according to claim 1 in which said printing hammer, said motor and said selecting mechanism are mounted on a frame, said frame having hingedly mounted thereon a plate which serves to complete the closure of said cover, said plate carrying on its side facing the interior of the cover a pair of inked ribbon supply spools and means to guide the inked ribbon from said spools to a point externally of the cover and between said platen and said window.

4. A teleprinter machine according to claim 1 in which there is attached to the rear of the machine a removable plate carrying a tape supply reel, and additional means are provided for guiding and feeding said tape to the printing point located between said platen and said window, said tape being entirely external to said casing.

ALFRED EDWARD THOMPSON.
REGINALD DENNIS SALMON.

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