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<td>D-Bit Systems (Proprietary) Limited</td>
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<tr>
<th>(72)</th>
<th>Inventor(s)</th>
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<td>Robert Ritchie</td>
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<th>(74)</th>
<th>Agent/Attorney</th>
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<tr>
<td>DAVIES COLLISON CAVE, 1 Little Collins Street, MELBOURNE VIC 3000</td>
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A pay envelope blank is provided comprising an A4 backing sheet and a just under A5-sized peel-off front sheet. The backing sheet is divided by a fold line into a first printed sheet portion and a flap portion. Both the first printed sheet portion and the peel-off front sheet are simultaneously printed with identical information using a conventional laser printer. The information includes details of the employee, including his or her name, the pay rate, the period end and the pay point. The front sheet is attached to the flap portion of the backing sheet by means of a U-shaped glue margin. Once the front sheet has been peeled away, the tacky glue margin is used to seal the first printed sheet portion over the flap portion, thereby defining a sealed envelope in which the information printed on the first printed sheet portion is obscured within the envelope.
## Company Copy Of Payslip

**NORMAL PAY : DB-1**

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**TOTAL Earnings:** 11291.58

**NETT PAY:** 6576.99

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## The International Payroll Corp

**NORMAL PAY : DB-1**

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**TOTAL Earnings:** 11291.58

**NETT PAY:** 6576.99
NAME OF APPLICANT(S):

D–Bit Systems (Proprietary) Limited

ADDRESS FOR SERVICE:

DAVIES COLLISON CAVE
Patent Attorneys
1 Little Collins Street, Melbourne, 3000.

INVENTION TITLE:

An envelope arrangement

The following statement is a full description of this invention, including the best method of performing it known to me/us:—
BACKGROUND OF THE INVENTION

THIS invention relates to an envelope arrangement, an envelope blank and to a method of forming the envelope arrangement from the envelope blank.

Typical payslips comprise two sheets, namely a top, carbonised sheet, which is obscured and thus unreadable, and a bottom sheet which is sealed to the top sheet by means of tear-off glued margins. The details of an employee's wages are over-printed on the obscured part of the top sheet using a dot-matrix printer. The pressure which is exerted on the top, carbonised portion of the payslip by the printer results in the details being transferred to the bottom portion. Thus, whilst the payslip remains sealed, the details of the employee's wages are obscured, and unreadable until such time as the payslip is opened.

This method of producing a payslip is relatively costly in that special carbonized or pressure sensitive paper needs to be used. In addition, this method also requires the use of outmoded dot-matrix or similar pressure-based printers.
SUMMARY OF THE INVENTION

According to a first embodiment of the invention there is provided an envelope blank comprising a first removable sheet portion having a first print receiving zone, an envelope-defining portion having a second adjacent obscurable print receiving zone, the first and second adjacent print receiving zones being arranged to receive printed information thereon, the first removable sheet portion being separably linked to the envelope-defining portion, and the envelope-defining portion carrying sealing means and being foldable into a sealed envelope configuration in which the information to be printed on the second print receiving zone is obscurable within the envelope.

Advantageously, the envelope-defining portion comprises a backing sheet having an outer peripheral sealing margin carrying the sealing means for enabling the backing sheet to be folded into the sealed envelope configuration.

Typically, the removable sheet portion comprises a peel-off sheet which overlies the sealing margin and lies adjacent the second print receiving zone, the peel-off sheet being arranged to expose the sealing margin on being removed.

Conveniently, the backing sheet is formed with a substantially central fold line, the second obscurable zone being located on one side of the central fold line and the sealing margin being located on the other, whereby the sealing margin is arranged to seal against a substantially outer peripheral portion surrounding the information to be printed on the second obscurable zone to define the sealed envelope.
The central fold line may be just off-centre, so as to define an exposed overlapping portion of the backing sheet for carrying non-confidential or non-proprietary information. The non-confidential or non-proprietary information may include payee identification information.

In an alternative form of the invention, the removable sheet portion comprises a tear-off portion which initially forms part of a single overlying sheet divided by a tear line into the tear-off and non-tear-off portions providing, respectively, the first and second print-receiving zones.

The overlying sheet overlies a backing sheet, with the non-tear-off portion being affixed to an outer peripheral portion of the backing sheet to provide the envelope-defining portion, and the tear-off portion being arranged to expose a flap portion of the backing sheet.

Advantageously, the sealing means comprises an outer peripheral sealing margin for sealing the flap portion to the non-tear-off portion to provide the sealed envelope.

Conveniently, the information on the adjacent first and second print receiving zones is printed using a single direct print transfer printing operation.

Typically, the information is confidential or proprietary information, with the information being printed on the first print-receiving zone being substantially identical to the information printed on the second print receiving zone. The first removable sheet portion may be utilized for record-keeping purposes.
Preferably, the envelope blank is a pay envelope or payslip, and the confidential information includes payment details, and the envelope is arranged to hold pay in the form of currency or negotiable instruments.

Conveniently, the envelope blank includes tamper-indicating means for detecting when an unauthorized party has attempted to access the contents of the sealed envelope configuration. The tamper-indicating means includes a plurality of cuts which are applied to an outer peripheral margin of the envelope-defining portion of the envelope blank which overlies the sealing means when the envelope blank is in the sealed envelope configuration.

According to a second embodiment of the invention, there is provided a method of printing an envelope comprising the steps of:

- providing an envelope blank comprising a first removable sheet portion having a first print receiving zone, an envelope-defining portion having a second adjacent obscurable print receiving zone and sealing means carried on the envelope-defining portion;

- printing information on the first and second adjacent print receiving zones in a single direct print transfer printing operation;

- separating the first removable sheet portion from the envelope-defining portion; and
folding the envelope-defining portion into a sealed envelope in
which the information printed on the second print receiving zone
is obscured within the envelope.

Conveniently, the method includes the step of inserting currency or negotiable
instruments into the envelope prior to the envelope being sealed.

According to a third embodiment of the invention, there is provided an
envelope arrangement comprising a sealed envelope configuration formed from
the envelope blank described above and a first sheet portion which is separated
from the envelope blank prior to the formation of the sealed envelope
configuration.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a top plan view of a first embodiment of a pay envelope
of the invention;

Figure 2 shows a perspective view of the pay envelope of Figure 1;

Figure 3 shows a perspective view of the pay envelope in which a
removable portion of the envelope has been torn off;

Figure 4 shows a plan view of the pay envelope after being sealed; and

Figure 5 shows a perspective view of a second embodiment of a pay
envelope of the invention in an open condition.
DESCRIPTION OF EMBODIMENTS

Referring first to Figures 1 to 3, a pay envelope or payslip blank 10 is formed from front and backing A4 sheets 12 and 14. The front sheet 12 is divided midway by a perforated line 16 into a first obscurable printed sheet portion 18 and a second tear-off sheet portion 20 defining first and second print-receiving zones 18A and 20A. The print-receiving zones 18A and 20A are printed with identical information using a conventional laser or ink-jet printer. The information includes identification information bounded by chain outline 22 incorporating identification details of the employee, including his or her name, pay rate, period end and pay point, with an optional photograph 24 of the employee being printed. Also provided on each of the zones is confidential pay-related information delineated in chain outline at 26 in a standard format, including earnings arising from overtime, basic salary and bonus and deductions arising from pension fund, PAYE taxation and UIF, with the nett pay being provided at 27 the base of the earnings column.

The backing sheet 14 is similarly divided by means of a central fold line 28 into a flap portion 30 and a pocket-forming portion 32. The pocket-forming portion 32 is permanently glued to the underside of the obscurable sheet portion 18 along an outer peripheral glue margin 34 so as to define a pocket 36. The glue margin 34 also extends around the flap portion 30, where it is covered by means of a peelable waxed strip 37 so as to prevent the tear-off portion 20 from sticking to it. Alternatively, the undersurface of the tear-off portion may carry a release agent such as wax to cover the glue margin 34 and prevent it from sticking fast.
The front and backing sheets are glued together in the manner described and the front face of the front sheet is then passed through a conventional direct transfer ink-jet or laser printer towards month end for printing all the relevant information illustrated in Figure 1. The paymaster then tears off the tear-off sheet portion 20 in the manner indicated in Figure 3 and inserts into the pocket 36 the pay of the employee, which in this case is in the form of bank notes and coins 38 and 40. The peelable waxed strip 37 is then removed so as to expose the adhesive margin 34, after which the cover flap 14 is folded over into the Figure 4 position in which the adhesive margin is glued firmly over the confidential and proprietary pay-related information 26. In the embodiment illustrated in Figures 2 to 4, the cover flap is cut away at 39, with the result that the identification information 22 remains uncovered. Alternatively, the cut away zone 39 may be replaced by a transparent or translucent window through which the necessary non-confidential identification information can be viewed.

The tear-off portion 20 is retained by the paymaster for record keeping purposes, and the resultant sealed envelope 42 of Figure 4 is then delivered to the employee, who opens it along outer peripheral perforated lines 43 running just inwardly of the glue margins 34.

Referring now to Figure 5, a second preferred embodiment of a pay envelope or payslip blank 44 is formed from an A4 backing sheet 46 and a just under A5-sized peel-off front sheet 48. The backing sheet 46 is divided by a just left-of-centre fold line 50 into a first printed sheet portion 52 and a flap portion 54. Tear-off margins 56 defined by perforated lines 58 are formed on opposite edges of the backing sheet 46.
As the width of the front sheet 48 is less than the width of the flap portion 54 which it overlies, a non-obscured portion 60 results, upon which basic, non-confidential information 62 of the employee, including his or her name, employee number and pay point, is printed. A photograph 64 of the employee may optionally also be printed on the exposed portion 60 to assist in identification.

Both the first printed sheet portion 52 and the peel-off front sheet 48 are simultaneously printed with identical information 66 using a conventional laser or ink-jet printer. The information 66 includes details of the employee, including his or her name, the pay rate, the period end and the pay point. Also provided on each of the sheet portions 48 and 52 is respective confidential pay-related information 68A and 68B in a standard format, including earnings arising from overtime, basic salary and bonus and deductions arising from pension fund, PAYE taxation and UIF.

The front sheet 48 is attached to the flap portion 54 of the backing sheet 46 by means of a U-shaped glue margin 70. The rear side of the peelable front sheet 48 is coated with a silicone composition which gives it a waxy texture and allows it to be peeled away from the glue margins 70. Once the front or silicone release sheet 48 has been peeled away, the tacky glue margins 70 are used to seal the first printed sheet portion 46 over the flap portion 54, thereby defining a closed pocket. The flap portion 54 is printed with a garbled pattern 71 which assists in obscuring the information 66 on the first sheet portion 52 once the closed pocket has been formed.

A pay depot may be typically provided with the envelope blank 44 which is then passed through a conventional ink-jet or laser printer at month end for
printing all the relevant information. The paymaster then peels off the front sheet portion 48 which is retained by the paymaster for record-keeping purposes. The paymaster then places on the flap portion 54 the pay of the employee, which may be in the form of hard currency or any negotiable instrument. The first printed sheet portion 46 is then folded over and sealed to the flap portion 54 by means of the exposed glue margin 70. The resultant sealed envelope containing the employee’s pay is then handed to the employee. The employee accesses his pay in the sealed envelope by tearing off the tear-off margins 56 and then separating the first printed sheet portion 46 from the flap portion 54.

In one version of the manufacturing process, the flap portion 54 is pre-printed with the garbled pattern 71. and the rear surface of the backing sheet 46 may optionally be pre-printed with customer-specific information. This printing is performed on a web fed multi-colour litho press. The marginal horizontal perforations 43 are made at the same time. The paper reels making up the underlying base sheet are then taken to a paper reel finishing facility where vertical perforations are applied, together with the application of the glue margin 70. The adhesive forming the glue margin 70 may include a reactive catalyst which ensures that the first sheet portion adheres permanently to the flap portion. In addition, miniature tamper-indicating die cuts 72 are applied at intervals to the glue margins so as to make it more difficult for non-authorized parties to open the pay slip, as well as to detect such opening. The front or silicon release sheet is then applied to the glue margin, resulting in the aforementioned envelope blank which is then delivered to the various pay depots.
The payslip blank may alternatively be formed from a single paper sheet which is twice the length of a single A4 paper sheet. Thus, whenever payslips need to be issued, the single paper sheet is folded in half which results in two A4 paper sheets being joined together along a common fold line. This embodiment has the advantage of reducing the chances of the payslip causing a paper jam in the printer while the confidential and identification information is being printed.

As a further embodiment, the payslip blank may be formed from a single A4 paper sheet which is folded along three fold lines, resulting in four sheet panels. The first and second sheet panels are used to form the pocket, with the first sheet panel carrying the confidential and identification information. The third sheet panel forms the cover flap which is sealed over the first sheet panel so as to obscure the confidential information. The fourth sheet panel is joined to the third sheet panel along a tear-off line, which allows the fourth panel to be torn off and form the employer’s copy of the payslip.

A significant advantage of the invention is that the payslip may be printed in a single printing operation or pass using a conventional direct transfer laser or ink-jet printer. In addition, special carbonized or pressure-sensitive paper does not need to be used, and outmoded dot matrix or other pressure-based printers do not need to be specially retained for the printing of payslips. It has been found that the preferred envelope blank version of Figure 5 can easily be fed into conventional ink-jet or laser printers.

Throughout this specification and the claims which follow, unless the context requires otherwise, the word "comprise", and variations such as "comprises" and "comprising", will be understood to imply the inclusion of a stated integer or step or group of integers or steps but not the exclusion of any other integer or step or group of integers or steps.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. An envelope blank comprising a first removable sheet portion having a first print receiving zone, an envelope-defining portion having a second adjacent obscurable print receiving zone, the first and second adjacent print receiving zones being arranged to receive printed information thereon, the first removable sheet portion being separably linked to the envelope-defining portion, and the envelope-defining portion carrying sealing means and being foldable into a sealed envelope configuration in which the information to be printed on the second print receiving zone is obscurable within the envelope.

2. An envelope blank according to claim 1 in which the envelope-defining portion comprises a backing sheet having an outer peripheral sealing margin carrying the sealing means for enabling the backing sheet to be folded into the sealed envelope configuration.

3. An envelope blank according to claim 2 in which the removable sheet portion comprises a peel-off sheet which overlies the sealing margin and lies adjacent the second print receiving zone, the peel-off sheet being arranged to expose the sealing margin on being removed.

4. An envelope blank according to either one of claims 2 or 3 in which the backing sheet is formed with a substantially central fold line, the second obscurable zone being located on one side of the central fold line and the sealing margin being located on the other, whereby the sealing margin is arranged to seal against a substantially outer peripheral
portion surrounding the information to be printed on the second obscurable zone to define the sealed envelope.

5. An envelope blank according to claim 4 in which the central fold line is just off-centre, so as to define an exposed overlapping portion of the backing sheet for carrying non-confidential or non-proprietary information.

6. An envelope blank according to claim 1 in which the removable sheet portion comprises a tear-off portion which initially forms part of a single overlying sheet divided by a tear line into the tear-off and non-tear-off portions providing, respectively, the first and second print-receiving zones.

7. An envelope blank according to claim 6 in which the overlying sheet overlies a backing sheet, with the non-tear-off portion being affixed to an outer peripheral portion of the backing sheet to provide the envelope-defining portion, and the tear-off portion being arranged to expose a flap portion of the backing sheet.

8. An envelope blank according to claim 7 in which the sealing means comprises an outer peripheral sealing margin for sealing the flap portion to the non-tear-off portion to provide the sealed envelope.

9. An envelope blank according to any one of the preceding claims which includes the information printed on the adjacent first and second print receiving zones using a single direct print transfer printing operation.
10. An envelope blank according to claim 9 in which the information is confidential or proprietary information, and with the information being printed on the first print-receiving zone being substantially identical to the information printed on the second print receiving zone, with the first removable sheet portion being utilized for record-keeping purposes.

11. An envelope blank according to any one of the preceding claims in which the envelope blank is a pay envelope or payslip, and the confidential information includes payment details, and the envelope is arranged to hold pay in the form of currency or negotiable instruments.

12. An envelope blank according to claim 11 with reference to claim 5 in which the non-confidential or non-proprietary information includes payee identification information.

13. An envelope blank according to any one of the preceding claims which includes tamper-indicating means for detecting when an unauthorized party has attempted to access the contents of the sealed envelope configuration.

14. An envelope blank according to claim 13 in which the tamper-indicating means includes a plurality of cuts which are applied to an outer peripheral margin of the envelope-defining portion of the envelope blank which overlies the sealing means when the envelope blank is in the sealed envelope configuration.

15. A method of printing an envelope comprising the steps of:
providing an envelope blank comprising a first removable sheet portion having a first print receiving zone, an envelope-defining portion having a second adjacent obscurable print receiving zone and sealing means carried on the envelope-defining portion;

printing information on the first and second adjacent print receiving zones in a single direct print transfer printing operation;

separating the first removable sheet portion from the envelope-defining portion; and

folding the envelope-defining portion into a sealed envelope in which the information printed on the second print receiving zone is obscured within the envelope.

16. A method of printing an envelope according to claim 15 including the step of inserting currency or negotiable instruments into the envelope prior to the envelope being sealed.

17. An envelope arrangement comprising a sealed envelope configuration formed from an envelope blank according to any one of claims 1 to 14 and a first sheet portion which is separated from the envelope blank prior to the formation of the sealed envelope configuration.

18. An envelope blank substantially as herein described and illustrated.
19. A method of printing an envelope substantially as herein described and illustrated.

20. An envelope arrangement substantially as herein described and illustrated.
21. The steps, features, compositions and compounds disclosed herein or referred to or indicated in the specification and/or claims of this application, individually or collectively, and any and all combinations of any two or more of said steps or features.

DATED this THIRTY FIRST day of AUGUST 1999

D-Bit Systems (Proprietary) Limited

by DAVIES COLLISON CAVE
Patent Attorneys for the applicant(s)
<table>
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**Total Net Pay:** 6576.99

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**Company Copy Of Payslip**

**NORMAL PAY : DB-1**

- **Employee No.:** DB-1
- **Employee Name:** R.K Graham
- **Pay Rate:** 12000.00/Month
- **Period end:** 1998/03/31
- **Pay Point:** Pretoria

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**The International Payroll Corp**

**NORMAL PAY : DB-1**

- **Employee No.:** DB-1
- **Employee Name:** R.K Graham
- **Pay Rate:** 12000.00/Month
- **Period end:** 1998/03/31
- **Pay Point:** Pretoria

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**Total Net Pay:** 6576.99