THE JOINT EXAMINATION BOARD

PAPER P6

INFRINGEMENT AND VALIDITY OF UNITED KINGDOM PATENTS

Tuesday 2nd November 2010

10.00 a.m. – 3.00 p.m.

Please read the following instructions carefully. ***Time Allowed – 5 HOURS***

1. You should respond to the instructions given at the end of the Client's letter.

2. Please note the following:

   a. Enter the Paper Number (P6) and your Examination number in the appropriate boxes at the top of each sheet of paper;
   b. The scripts are photocopied for marking purposes. Please write with a **dark inked pen** on one side of the paper only and within the printed margins, and do not use highlighters in your answer;
   c. Do not state your name anywhere in the answers;
   d. Write clearly, as examiners cannot award marks to scripts that cannot be read;
   e. **Marks are awarded for the reasoning displayed and the points selected for discussion rather than the conclusions reached**.

3. Under the Examination Regulations **you may be disqualified from the examination and have other disciplinary measures taken against you if**:

   a. you are found with unauthorised printed matter or other unauthorised material in the examination room;
   b. your mobile phone is found to be switched on;
   c. you copy the work of another candidate, use an electronic aid, or communicate with another candidate or with anyone outside the examination;
   d. you continue to write after being told to stop writing by the invigilator(s). **NO WRITING OF ANY KIND IS PERMITTED AFTER THE TIME ALLOTTED TO THIS PAPER HAS EXPIRED.**

4. **At the end of the examination assemble your answer sheets in page number order and put them in the WHITE envelope provided**. Ensure that the answer sheets placed in the envelope are not stapled or joined together in any way. Any answer script taken out of the examination room will not be marked.

Document checklist:

Client's letter	(2 pages)
Sketches	(2 pages)
Client's patent GB2123123	(3 pages)

This paper consists of 8 pages in total, including this page.

Client's Letter

An established client, a medium-sized UK manufacturer of hand tools, writes to you a

"Dear Patent Attorney,

I need your advice concerning our UK patent no. 2123123 for a nail pulling device. You may remember that you took this patent onto your books last year, after we acquired it from Mr Zweibakken, the inventor. At the time Mr Z also sold us his business in the device and the associated know-how for its manufacture.

We were very pleased with the deal as we were not aware of anything similar on the market, and thought that the nail puller might sell well as a floorboard lifting tool. This has indeed proved to be the case. The patented tool has significant advantages over the commonplace floorboard lifting tools and nail extraction methods which are shown in the enclosed sketches A, B1 to B4, C1, C2 and C3.

One way of lifting floorboards is to insert a crowbar (sketch A) into the cracks between them, and lever them up, nails and all. This will inevitably damage the edges of the boards and will often split them, making them unusable.

Another floorboard lifting method is to use a claw hammer as shown in sketches B1 to B4. As its name suggests, a claw hammer has a head which is curved at one end and divided to form a pair of claws. These can be inserted beneath a protruding nail head, one on either side of the shank (see sketches B1 and B2). Then you can pull on the hammer handle and roll/rotate the hammer head on an underlying surface to lever the nail out. The trouble with floorboard nails is that they are hammered in until their heads are flush with or below the floor surface (see sketch B3). It is therefore difficult to insert the hammer claws under the nail head. Although this can be achieved by hitting the other ("hammer") end of the claw hammer head with a club hammer as shown in sketch B4, to drive the claws into the wood on either side of the nail head, this makes rather a mess of the floorboard surface.

The crowbar of sketch A also has a sharp, notched end which can be used to gouge out wood from around a nail head and then pull it from a floorboard. The smaller size of the end makes it easier to stab into the wood than a claw hammer. However, a crowbar cannot easily be hit with a hammer, either to help the gouging process or to help the notch to bite into and tightly grip the nail shank.

Another well known nail extraction tool is the carpenter's pincers shown in sketches C1-C3. The nail to be extracted is gripped by squeezing the handles together and the curved jaws enable the tool

to be rolled/rotated on an underlying surface to lever the nail out (sketches C… …ever, nails fully sunk into the wood cannot be extracted. Nor can larger sized nails, as the … …ot get enough grip on them to pull them out. It is not possible to hit pincers with a hamm… …he jaws under a nail head.

All of these problems are solved with our patented nail puller. Although the jaws of this tool … make indentations in the wood on either side of the nail head, these are small and neat (not much bigger than the nail hole itself) so that the boards are perfectly reusable.

I am now dismayed to find that Mr Z has begun selling a tool on the internet as shown in sketch D. This is having a serious impact on UK sales of our nail puller. Mr Z's competing tool works in much the same way as ours. To deal with sunken nails, the long handle is held upright and the anvil is hit with a hammer to drive the jaws into the wood around the nail head. The handle is then pulled in the direction of arrow B to first grip and then extract the nail. The tool rolls on the support pad as the nail is pulled out.

Please advise what we can do to stop Mr. Z's internet sales.

Yours sincerely,

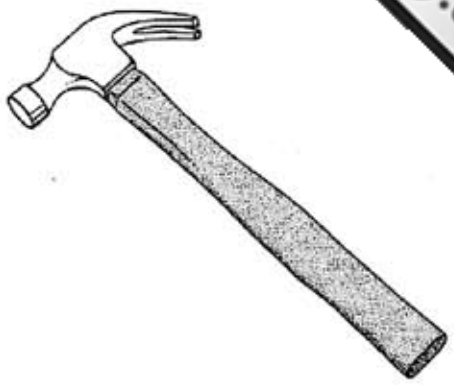
Andy O'Toole
Handy Tools Limited"

Your records and a check on the UK Patents Register confirm that GB 2123123 is in force. There are no equivalent patents in other countries. A comprehensive prior art search has revealed nothing of any greater relevance than the material discussed in Mr. O'Toole's letter.

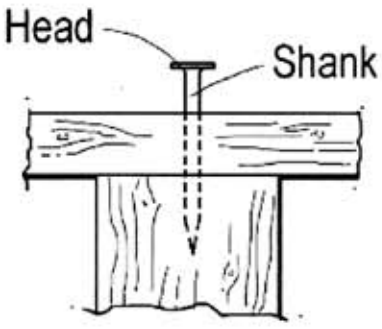
Your task is to provide detailed notes for a memorandum of advice to Mr. O'Toole. This should include your reasoning as to whether the sales of the tool shown in Sketch D and described in the client's letter infringe or potentially infringe your Client's patent GB2123123; whether that patent is valid; whether amendment of the patent is required or advisable, an indication of further information (if any) that might be needed and a brief indication of any other practice points that might be raised by the situation.

A Crowbar

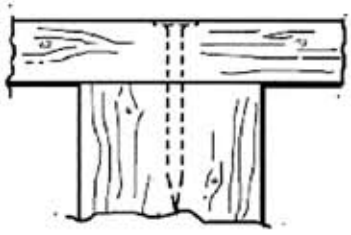
B1 Claw Hammer



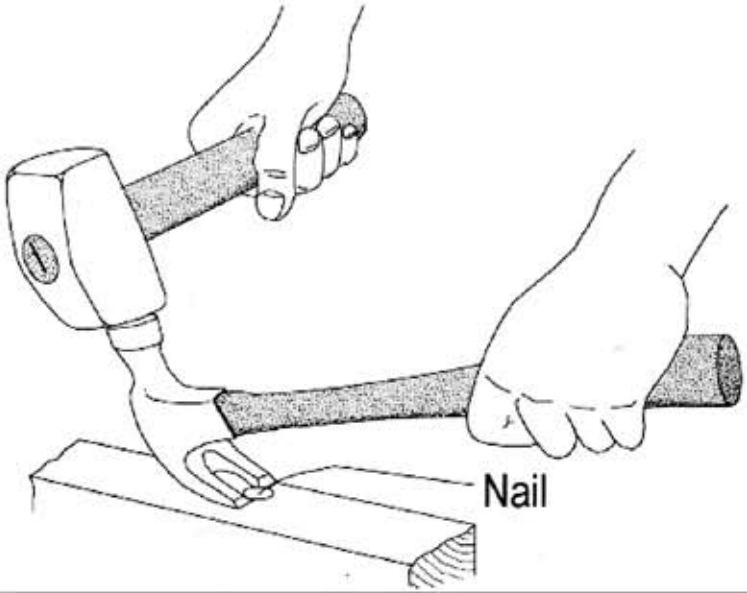
B2 Protruding Nail



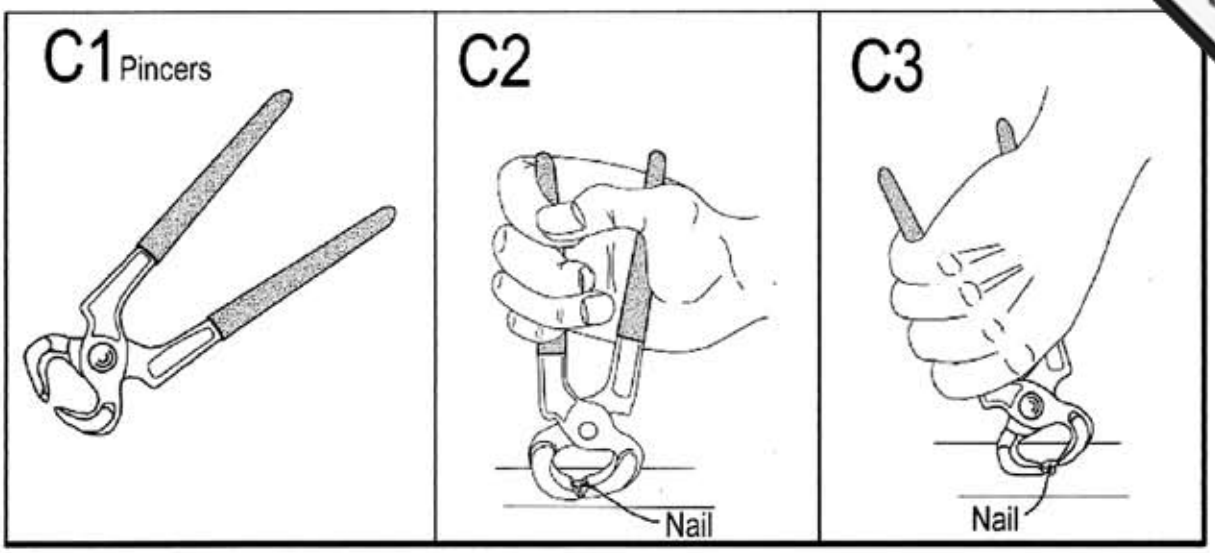
B3 Sunken Head

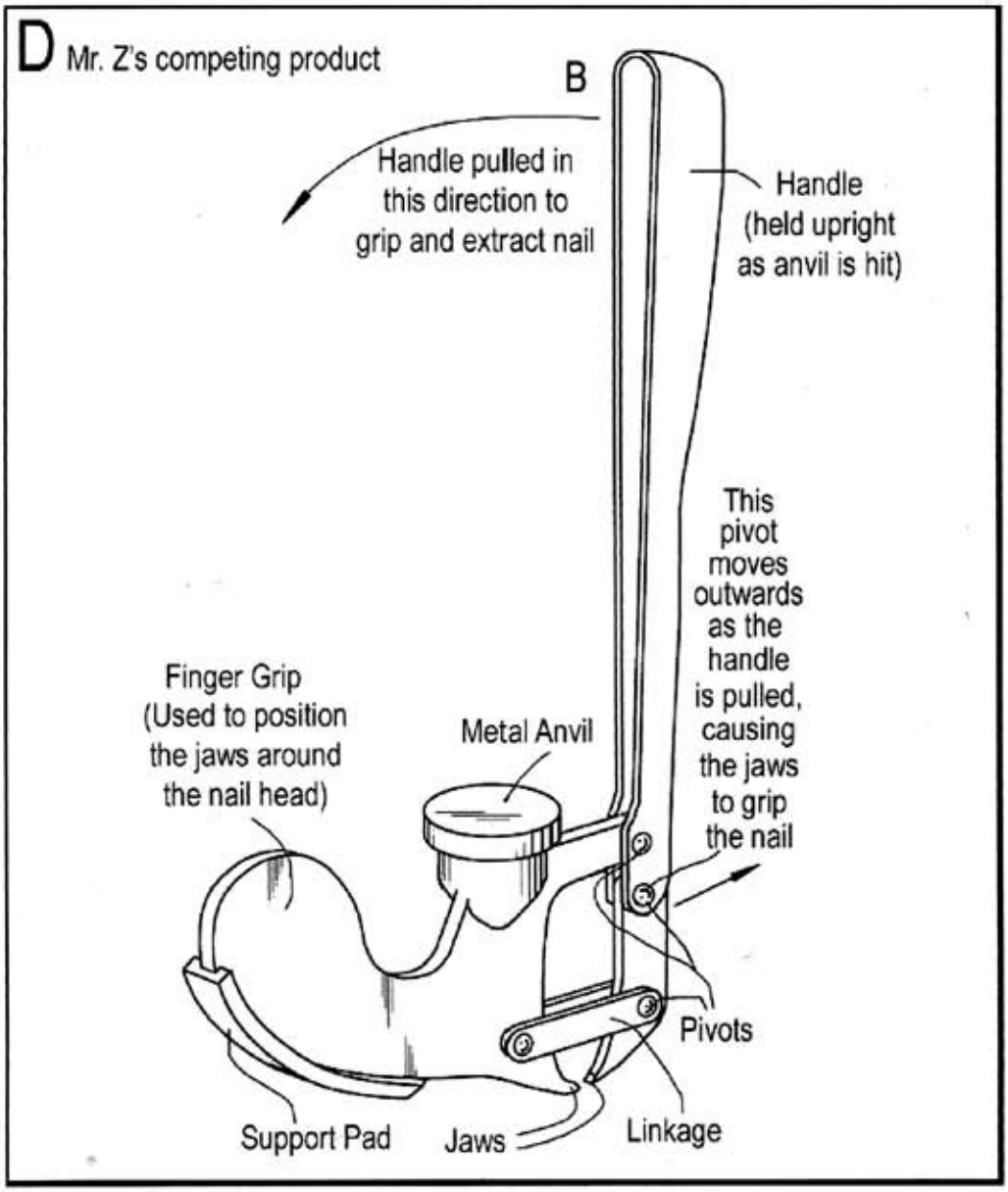


B4 Claw hammer being hit with a club hammer



Sketches





NAIL PULLER

My invention is a tool for pulling nails from timber. It is effective in extracting nails which have been driven in until the tops of their heads are level with or even below the timber surface. Other tools and methods for undoing a nailed connection require the nail head to protrude above the timber surface so that it can be gripped to pull the nail out; or else they break up the timber in order to destroy the nailed connection. My nail puller is therefore particularly effective for lifting floorboards, opening timber packing cases and similar applications, all without significant damage, allowing the timber to be re-used.

In the accompanying drawings:
Figure 1 shows a nail puller embodying my invention;
Figure 2 shows the nail puller of Figure 1 positioned over a nail head ready for extraction, and
Figure 3 shows the nail puller driven into the timber so that the nail head can be gripped for extraction.

As shown in Figure 1, my nail extraction tool 10 has a pair of jaws 12, 14 articulated together at a pivot 16. The tips of the jaws curve inwardly, being designed to reach around a nail head and to grip the shank of the nail on opposite sides just below the head in use. The jaws are relatively small and the tips also face downwardly, allowing the jaws to be driven into the timber on either side of the nail head, as further described below.

Jaw 12 is formed at the end of a handle 20 and jaw 14 is formed at the end of a handle 18. Handle 20 is of crooked form and extends generally horizontally in use. It has an upturned end 22 by which it can be grasped to manipulate the jaws 12, 14 open and closed and to manoeuvre them into position straddling the head 30 of a nail to be extracted, as shown in Figure 2. Handle 18 is straight and extends more or less vertically in initial use.

Handle 20 has a central foot part 24 having a convexly curved sole which can be rested against the timber 28 or another convenient surface adjacent to the nail head 30.

Importantly the tool 10 is provided with a percussion arrangement by which the hingedly connected jaws can be driven into the timber on either side of the nail head. As shown, this takes the form of a hollow, heavy, metal casting 26, slidably received over the top end of the handle 18.

The casting 26 is raised and then moved vigorously downwards along the handle by user muscle power and partly under gravity. At the lower end of the stroke, an upper surface 32 of the casting 26 strikes the concealed upper end 30 of the handle and this drives the jaws into the timber. Several strokes as represented by the double headed arrow in Figure 2 may be needed to drive the jaws fully home. Then as shown in Figure 3, the handle 18 can be forced to the left (in the direction of arrow A) so that the whole tool rolls and rotates on the foot 24 and draws the nail out of the timber.

The lever arm formed by the separation between the foot 24 and the jaws 12, 14 ensures that the jaws tightly grip the nail and also ensures that even quite a long nail can be drawn out in a single rolling movement of the tool. However the length of the handle 18 (if necessary with extension of the casting 26) provides a mechanical advantage, allowing even a tightly embedded nail to be levered out. It is a significant advantage that the force applied to the handle to pull out the nail also causes the jaws to grip the nail more tightly, so that there is no slipping.

CLAIMS:

1. A nail pulling tool comprising a pair of jaws engageable with the shank of a nail to be extracted, the tool having a support foot engageable with a surface in which the nail is situated and on which the tool is rollable and rotatable to pull the nail from the surface.

2. A nail pulling tool as defined in claim 1 in which each jaw is attached to a handle.

3. A nail pulling tool as defined in claim 1 or 2 in which the jaws are connected together by a pivot passing through them.

4. A nail pulling tool as defined in claim 2 or 3 in which the jaws are attached to their respective handles so that the nail is tightly gripped during rolling and rotation of the tool.

5. A nail pulling tool as defined in any preceding claim comprising a sliding weight by which the jaws can be driven into the surface in which the nail is situated.

Fig.3

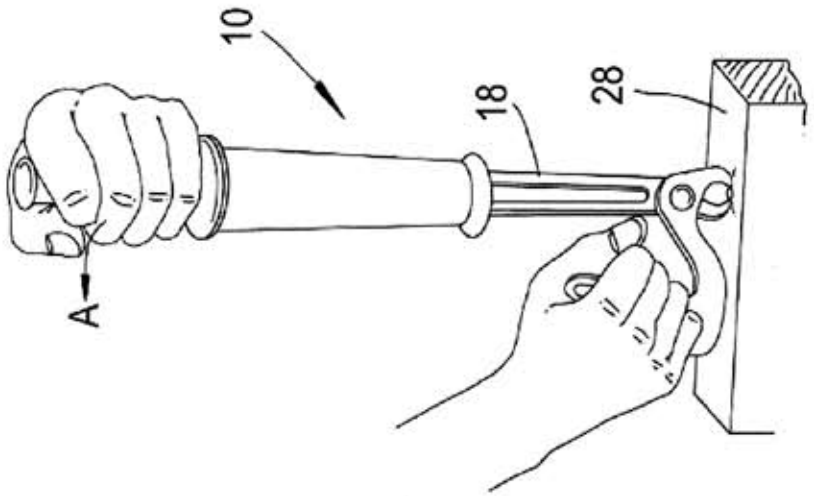


Fig.2

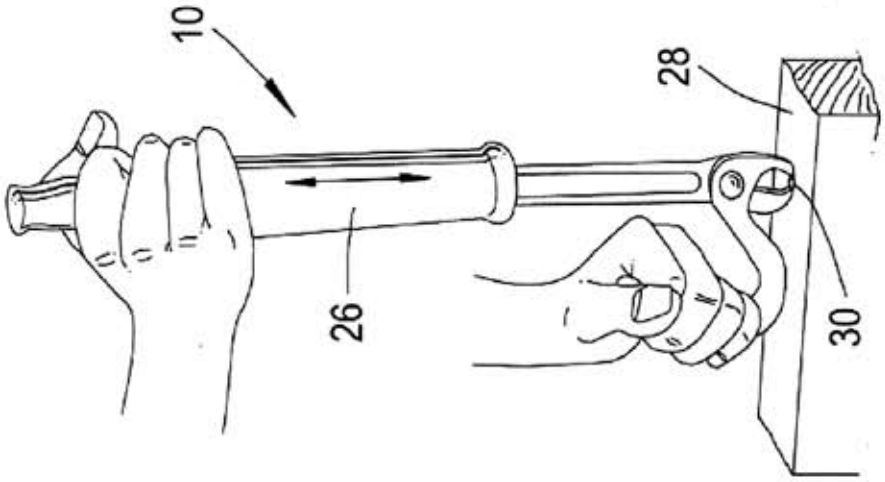


Fig.1