

makers.

It was due to the valuable contribution made by Birmingham gunmakers that, in spite of the opposition of the London trade, they were able to obtain an Act of Parliament which allowed them to "...erect and establish a proper Proof House, with all things necessary for the Proving of Barrels of Fire-arms."

The foundation stone of the Birmingham Proof House was laid in 1813 and by March, 1816 the Proof House was in operation in Banbury Street, Birmingham, in the building which houses their present day operations.

The early years of the 19th century saw the establishment of many of the Birmingham gunmakers whose names are well known to us to-day. However, the most significant venture was the formation of the Birmingham Small Arms Company in 1861 by a number of shareholders, amongst whom are numbered some fourteen established gunmakers. The object of the new company was "to make guns and machinery" and within ten years the manufacture of military rifles by the traditional hand methods had almost ceased.

At the BSA factory at Small Heath commercial considerations had to be taken into account and because of the fluctuating nature of the business from both the British and foreign governments the company was forced to widen its interests to include the manufacture of cycles and cycle components.

The change to the use of machinery and a largely static work force in a factory had reduced that flexibility which had for so long been a feature of the traditional gun trade.

However, even under factory conditions some of the old traditions still survived and for a number of years the independent gunworker rented his bench space and gas light from the owners of the factory.

The manufacture of sporting guns by machinery was attempted by a number of Birmingham makers and although some success was achieved in the manufacture of damascus barrels of very high quality with the aid of machinery, in general, the use of the machine tool was restricted to the simple machining work, the final careful fitting remained in the skilled hands of the traditional gunworker.

A. A. BROWN & SONS

The term gunmaker is one which tends to be rather loosely used these days. Despite a wealth of gilt "Gunmaker" signs above shop doors, the number of firms who can truly state "we are gunmakers," is really quite small. Of those firms boasting this title Browns can claim to make more of the guns that bear their name than most and, if pushed, could probably make all of the gun in-house.

To see the transformation from rusty massive chunks of metal and baulks of timber to the grace and sheer perfection of a "best" English gun is

quite an experience in itself and, to me, a very satisfactory one, since I have pride in British gunmaking and gunmakers.

The firm is in modern premises in the delightful village of Alvechurch, south of Birmingham. Unlike the traditional gunmaking establishment the machine shop is spacious and well lit and only on venturing farther into the works is it evident that this is a gunmaker's for there is the traditional bench, inches deep in files, lit by a fine, long, north-facing window above. Here is a true amalgam of old and new traditions, the best of both worlds brought together.

When the first Brown in this family started to make guns is unknown but John Joseph Brown, born in 1853, was one of 11 sons, of whom five were master gunmakers. John eventually started work with P. Webley & Sons where he met his future wife, Maria Chapman. Three sons and three daughters resulted from this marriage. Albert Arthur, one of the sons entered the gun trade with the firm of F. E. & H. Rogers who were action makers and quickly gained a reputation for high quality work. In 1911 Albert married Minnie Davis and they had a daughter and two sons, Albert Henry and Sidney Charles. The sons entered the gun trade and together the family formed the firm of A. A. Brown & Sons with premises in the heart of the Birmingham gun quarter in Whittal Street.

No sooner were they established than World War Two broke out and, with the premises damaged by bombing, they had to move out to the suburbs of Birmingham, to Shirley. After the war the firm moved back to the gunmaking quarter, not exactly to where they had been but to Sand Street, a well known little street that joined two more famous gunmaking streets of Weaman Street and Whittal Street. Here they settled down and prospered. Albert Henry joined the Board of Guardians of the Birmingham Proof House and was a member many years, five of them as Chairman.

During this period the firm designed and made about 2000 of the "Abas Major" air pistol before settling to their real business of gunmaking. Additional machinery installed enabled them to make guns complete from forgings and bar steel. Changes in the trade would have defeated less determined and less skilled people. For generations the gun trade consisted of highly skilled firms which relied on the gunmaker to bring all of their skills together. Gradually the small firms went out of business and many individual craftsmen retired and with them skills and knowledge. As changes accelerated firms had several choices. The easiest way was to be vendors of guns made by others. Mostly only the larger businesses survived as money was attracted into other Midlands industries. A. A. Brown & Sons took a harder course; they learned and acquired the skills no longer available to them through the trade.

In 1957, the founder of the firm, Albert Arthur, retired and three years later, with the development of the Birmingham ring road, the firm had to move yet again. The Sand Street premises were demolished and the little firm moved out of the gunmakers' quarter once again, this time to Bournbrook,



Best A. A. Brown sidelock

Birmingham. With small firms disappearing all around all that remained of the old gunmaking quarter was the remains of Bath Street, Price Street and part of Loveday Street.

In 1961 Robin Brown joined the firm to learn the trade and at this time Les Jones, one of the foremost gun engravers in the country, joined them. Making "best" sidelocks only, the firm concentrated on quality, making not only for themselves but also for the London and Provincial trade. Their products bore the trade mark "ABAS" and during the sixties the firm increasingly built guns for private customers.

In 1974 the move was made to Alvechurch where they concentrated on two guns, the "Supreme" sidelock ejector and the "Supreme Deluxe" which has chopper lump barrels, a self opening mechanism, disc-set strikers and individual specifications.

Today, along with the two brothers, Albert Henry and Sidney Charles, there is yet another generation, Robin Charles Brown, who is well able to carry on the traditions of the past. The important work of barrel boring and general machining is in the very capable hands of Samuel Harold Scandrett and, as well as Les Jones, already mentioned, Walter Howe, engraves for the firm.

With the exception of the forgings for the body and fore-end, and some of the barrel work, everything, except the engraving, is done on the premises.

This now includes lock making, stocking, stock finishing and the multitude of skilled operations on which the faultless functioning of a best gun depends.

There comes the time when a firm declares "let us make an example of our best work," a masterpiece. In Brown's case this has taken the form of a commemorative exhibition piece, a 28-bore "Supreme" to celebrate the Queen's Silver Jubilee. I have seen this gun several times now; the first was at the Game Fair, and it still delights me.

Not only was my visit to Brown's a trip into the past but also a lesson in gunmaking and public relations, and, not least of all, a reassurance that the arts and crafts of gunmaking are thriving in this country.

WILLIAM CASHMORE

For some time now I have been very interested in the export business conducted by the Birmingham gun trade in the years just before the First World War. A number of readers in Canada, Australia, New Zealand and America know about my interest in this subject, as do members of today's gun trade in Birmingham.

A few years ago I received a photocopy of a catalogue which bore the name William Cashmore and the address Steelhouse Lane, Birmingham. This came to me from Larry Barnes of Gunnerman Books in America and it dated from the mid 1890s. I also received a catalogue which described the Cashmore Patent Nitro Action, this dating from sometime after 1897. I had only encountered the gun previously as a line drawing in the British Patents. The catalogue really brought it to life showing that this unusual action had been widely sold. Cashmore guns in general were highly regarded and the company's literature was full of quite glowing references and testimonials including some from Dr Carver and Miss Annie Oakley.

Cashmore was renowned for its trap guns, chambered for 2 3/4in and 3in cases. These were used for live pigeon shooting and for clays. Cashmore offered a double-rise pigeon trap, complete, for just over £2; clays in the closing years of the 19th century cost 25p per 100.

Matters rested at this stage for several months, but enough material had been gathered to arouse my interest — but there was still not quite enough to sustain an article. Then, a letter with enclosures was received from Fred Shearer, a gunsmith in Malvern, Australia.

The enclosure was copy of another Cashmore catalogue which again illustrated the Cashmore Nitro shotgun and also gave a very complete list of successes which Cashmore guns had achieved in Monte Carlo, Australia and America and at The Gunmaker's Trophy competition in Birmingham.

Mr Shearer told me in his letter that the Cashmore Nitro gun was highly regarded by older shooters in Australia and it seems likely that a very high proportion of these special guns were exported and that more have survived abroad than we have here in the U.K!

LET'S BUILD A "BEST" GUN

You may have bought it, you may have inherited it, you may, on the other hand, have purchased that "Best" gun secondhand either through a gunmaker or at auction. New, the price you paid could have bought a very nice new car, second-hand, in good condition, a "Best" gun will still cost a lot of money, say up to £20,000.

Here we are not only paying for the highest quality; at these prices we are also paying for the "name."

To establish a "name" is not easy and with the exception of competition shooting where at the turn of the century names such as Churchill, Grant, Boswell and Lang became well known because of their successes at Gun Club meetings — no such easy way of quickly establishing a reputation is now available in this country.

Today the reputation is either there and has to be maintained (for it can be quite easily lost) or it has to be built up quite gradually by recommendation and word of mouth.

Not all the best guns were made by the famous London or even provincial makers. The best gun has about it an air which is recognizable whether it is built in London, Liege, Birmingham or Brescia.

Many best guns were built by gunmakers whose names are unknown except to the gun trade itself. Sometimes, in spite of the name on the lockplate and top rib, the name of the *maker* of the gun will be revealed by a few initials discreetly impressed into the metal, more often than not, since the livelihood of the gunmaker depended on his anonymity the true maker of the gun will not be discovered. This practice is now affected by the provisions of the Trades Description Act. This happened to be the way the gun trade was organised and in some respects it is not dissimilar to the motor trade. One could ask "When was the last true Bentley manufactured?" The purist might well answer "The day before the firm was bought by Rolls Royce Ltd." The same questions could be asked about any number of marques, some both the name and quality have survived, others, just the name and no more. Much the same applies to today's builders of quality guns.

Since we are talking about "best" guns, what do we mean by the word "best" particularly as used by the gun trade?

Let us first of all have a look at the dictionary definition. The most appropriate appears to be "excelling all others in quality". I have just done a quick search through my gun library to see if anyone has been bold enough

to give a definition with reference to guns. The indexes of most of the books on shotguns do not include "best gun", that is, with the exception of *Shotguns* by Pollard. Even Pollard does not define the term so we are left with the dictionary one. That is until we have looked at how these "best" guns are made.

Who are the makers of "best" guns? Boss have always *said* they were since in the advertisement section of Pollard's book we find their advert with the statement "Builders of best guns only". Stephen Grant & Sons are not quite so dogmatic, they merely state "Makers of Best Quality Guns and Rifles". James Purdey comes close but avoids the term "best", their statement is "Manufacturers of the Highest Quality Weapons Only". This was in 1923. Today their advertisement might merely state "Purdey — London", such is the power of prestige.

I could have gone to one of the famous name firms and asked for two or three days of their time and access to all their secrets. Two firms have indeed offered these facilities and I shall be taking advantage of their offer later in the year. To start with, however, I want to show you how a best gun is made by a firm you may not have heard of — A. A. Brown & Sons of Alvechurch. You may not have heard of them but their roots go deep into the history of gunmaking in Birmingham.

The first recorded member of the gunmaking Browns was John Joseph born in 1853. He was one of eleven sons, five of whom became master gunmakers. One of the sons, George, was an engraver, Sidney was a stock finisher and three others were action filers. John went to work for Webley & Scott and he met and married Maria Chapman who was a cartridge loader at Webley & Scott. They had two sons who survived, John and Albert Arthur, both of whom entered the gun trade.

Albert Arthur worked for the firm of F. E. & H. Rogers of Loveday Street. He married Minnie Davis in 1911 and they had two sons, Albert Henry and Sidney Charles, born in 1913 and 1916. By the thirties we find the firm of Albert Arthur Brown at 27 1/2 Whittal Street and in the years just before the war the firm becomes A. A. Brown & Sons at 35 1/2 Whittal Street.

Until the outbreak of war the firm made gun actions for the trade. During the war armourers tools and gun components were made and the firm was also bombed out. They moved to the outskirts of the city until the war ended when they re-established themselves in the heart of the old gunmaking quarter at 4 Sand Street. In the post war years materials for building quality shotguns were difficult to come by so Brown made an air pistol, the "Abas Major" of which some two thousand were produced from the Abas Works in Sand Street.

With the easing of restrictions A. A. Brown went back to making high quality box-lock guns for the trade and a few sidelocks as well. They bought the machinery and tools from the old established firm of J. Asbury & Sons which had closed down and were then able to manufacture guns complete from rough forging and bar steel. The firm specialised also in the production

of top ribs for double shotguns and these were made for the trade, a very much more complicated job than one would at first imagine!

A. H. Brown joined the Board of Guardians of the Birmingham Proof House in 1946 and during his membership, which lasted for twenty two years, he was Chairman for five. In 1946 the next generation of gunmaking Browns appeared, Robin who is now a partner. In 1957 Mr A. A. Brown retired and three years later the firm had to move once again. This was due to the redevelopment of the centre of Birmingham and along with many other firms their premises were demolished. Well over half of the gun trade was affected by these changes and many smaller firms went out of business at this time. Browns moved into premises which were offered by the firm of Westley Richards where they were to remain for fourteen years. In 1961 Robin Brown joined the firm to serve his five years apprenticeship as a gunstocker, learning his craft from one of the best men of his day, Mr Albert Thompson. Robin became a partner in 1967.

During this period one of the foremost engravers in the country, Les Jones, started to work for the firm full time. The emphasis during this period was on high quality sidelock guns for the home and export trade. As had happened many years ago with the firm of Webley & Scott it was decided that all the guns made by the firm, regardless of the purchaser, would bear the company trade mark "ABAS", a mark still in use today.

A move was made to Alvechurch, a pleasant village some 14 miles south of Birmingham, in 1974. Premises at 1 Snake Lane were purchased and alterations carried out to make them suitable for the manufacture of guns.

With the move to Alvechurch also came the decision to concentrate on the manufacture of guns for private customers (with a few exceptions). This represented a distinct change in marketing policy and this was to be followed by another important decision, that to manufacture one quality of gun only, the best.

The family has a tradition of well over a century of gunmaking behind it, the knowledge and the skills are there. New and modern premises are available and over 95% of the work is carried out "in house", to use current jargon.

The locks, which formerly were made by specialist lock makers, as was the practice in the trade, are now made "in house". This had already been considered but when the lockmaker which they used went into liquidation "in house" manufacture was a sensible choice. Many of the internal parts of the gun are gold plated — not because this looks nice — indeed most of the plated work can't be seen, but because gold plated components are less liable to corrode. This work is also done "in house" both the copper and gold plating. It is better to have control over these processes and it also saves a lot of time since jobbing platers can well lose the odd small lock component, not realising that the work needed to replace that one small part is quite high since the item is not stamped out by the thousand on a press.

Gold plating has other advantages, the work required for overhaul is

very much reduced when the gun is returned to Alvechurch for servicing. This also means that the cost of such work is reduced!

Bought in items include the tubes, bar or chopper lump for the barrels, special forgings for the action body, one forging is used for 28, 20, 16 and 12 bore guns, a special forging is used for the .410. Bar stock is also bought in, the fore-end is now made from case hardening steel and, of course, the high grade timber for the stock is purchased from specialist suppliers.

Machining of the forgings and bar stock is all carried out in the workshop by Harold Scandrett who has been with the firm for thirty three years. Some of the operations are done by outside specialists such as chequering and barrel blacking. Case hardening, on the other hand, is done in the traditional manner in animal charcoal on the premises. Known also as "bone meal" to the old time gunsmith today this comes from Scotland where it is used in the making of whisky!

Emphasis is on traditional methods of manufacture, not merely because it is traditional but for the simple reason that these techniques suit the present volume of production and the fact that each gun is an individual creation. The term "custom gun" has become somewhat debased and as an alternative to "best" gun one can use the term "bespoke gun". This means



A. A. Brown & Sons "Best" sidelock

"made to the customer's exact requirements" and it is an alternative to having several grades of gun on the range none of which suit your precise needs.

The standard specification is for the "best" gun and the options available, in general, are to provide a lower cost alternative.

The guns are sidelocks and can be built in 12, 16, 20, 28, or .410 bores. Barrels are "side by side" and can be made from 24" to 30" long. There is a choice of chamber length, choke, weight, balance and stocking.

Chopper lump tubes are standard but dovetailed tubes can be provided at lower cost. The gun is a self-opener, but this unit can be removed or the gun can be made as an easy opener with the option to have no self opening device at lower cost. Locks have intercepting safety sears and can be hand detachable if required. Trigger pull weight to suit the customer's requirements with the option of a single trigger, the guard has a single bead on the finger side of the bow. Ejectors are Southgate and the fore-end is secured by the Anson push rod fastening. The safety is automatic and has a gold inlaid "SAFE". The action is bolted by a top lever operating a hardened steel bolt with double bites on the barrel lump. Disc set strikers are fitted and the action has beaded fences with fluted sides and double bars on the underside. On lightweight guns the action body can be rounded.

Stocks are made from specially selected French walnut and customers can have a choice as to figure and colour. The finish is hand rubbed oil and a gold oval is fitted which can be engraved with initials or a crest. The grip is straight with a slight diamond shape and drop points but a pistol grip can be made if required.

Engraving is to the customer's requirements and can vary from standard fine English scroll to any type of special engraving. The action can be colour hardened or "brushed silver" and the barrels, guard, top lever etc., are finished in deep black.

Measurements for the stock can be taken from an existing gun, from details provided by a shooting school or the measurements can be taken at Alvechurch. Guns can be made as matched pairs, triples or sets and any type of gun case can be provided. The cases can be provided with outer covers and accessories and the guns are proof tested at the Birmingham Proof House.

This is not merely the specification of the A. A. Brown & Sons "best" gun it indicates in fairly precise terms the extent to which guns of this quality can be made to suit the customers exact requirements. For this reason, although it is possible to order a gun or guns from a gunmaker by post or telephone, nothing serves as well as does a visit in person. One of the pleasures of buying a gun of this quality is the discussion with the gunsmith. This serves many purposes, it means that you are more likely to get exactly what you want and of possibly even greater importance you feel that you have had a hand in the building of the gun, since, of course, you have if your ideas and wishes have been incorporated in the final end product.

We learned something of the history of the firm of A. A. Brown & Sons and why I chose them to illustrate how one goes about making a best gun.

It was during a visit to the factory at Alvechurch in 1977 that the idea of taking a reader through the various stages of building a best side-by-side double first came to mind. The first positive steps were taken following a 2 day visit by Robin Brown when we discussed all the aspects of their operation.

This is not as easy as it sounds. I first followed the manufacture of a shotgun by modern techniques at the F.N. factory in Herstal, Belgium. This was the renowned Browning O/U and, with the aid of a number of F.N. officials who gave me much of their time, I was able to follow the manufacture of the O/U from the forge to the finished product. Because of the volume of production I was able to see guns at all stages of manufacture but where the output is measured in tens rather than in thousands this cannot be done. All too often with the small volume of output it is very often impossible to see a finished gun let alone guns in various stages of production.

With Browns, the first part of the manufacturing process is to break down the various operations into specialist areas and allocate these to the members of the production team. Since all the people in the workshop are working gunmakers we find the tasks split up as follows. Harold Scandrett is responsible for most of the machine operations, he also part files-up the gun furniture, trigger plates, triggers, guards. All of these items are made from forgings, none are castings. Harold is also responsible for most of the work in connection with the production of the sidelock mechanism which is based to a large extent on the Holland and Holland design, possibly one of the most widely used sidelock mechanisms for "Best" guns. The lock components are jig machined from bar stock, the steel being chosen for each component to give the most desirable characteristics. In addition, Harold does the barrel work, boring, choke regulation, making the extractors and top ribs and blacking work. He also does machining work for the trade and barrel repairs such as raising dents, polishing bores etc. Mr A H Brown and Mr S C Brown are responsible for the critical work of joining the barrels to the action, this is known as jointing. They also fit the disc set strikers and prepare new guns for submission to proof. Both craftsmen work on the locks and they fit and finish the fore-end and finish the stocks. In addition they are responsible for freeing and finishing all work after case hardening.

Mr Sidney Brown also does the repair, renovation and overhaul work done by the firm on both their own and other high quality English guns. His son, Robin Brown, who, following the retirement of Mr Albert Brown in 1978 looks after lock fitting, the cocking and ejector work, fore-end fitting, furniture fitting and the final filing up of triggers, guards etc. Also included in this section is the safework, preparation for stocking, marking the wood off to the customer's measurements and the machining of the fore-end wood. Robin does the fitting of the self opening mechanism, he makes the single trigger mechanism and is responsible for colour case-hardening and the



Stock work

copper and gold plating. He also stocks screws and part finishes all new guns.

The test firing of the gun, patterning etc. is also done by Robin and, with the help of his wife, he looks after the office work.

The work of making the gun is split into sections and each one of the gunmakers has his own specialist responsibilities.

There is one other gunmaker, Albert, who retired in 1978. He, as we have seen, continues to work on a part-time basis on jointing, lockwork and smoothing actions ready for the engraver.

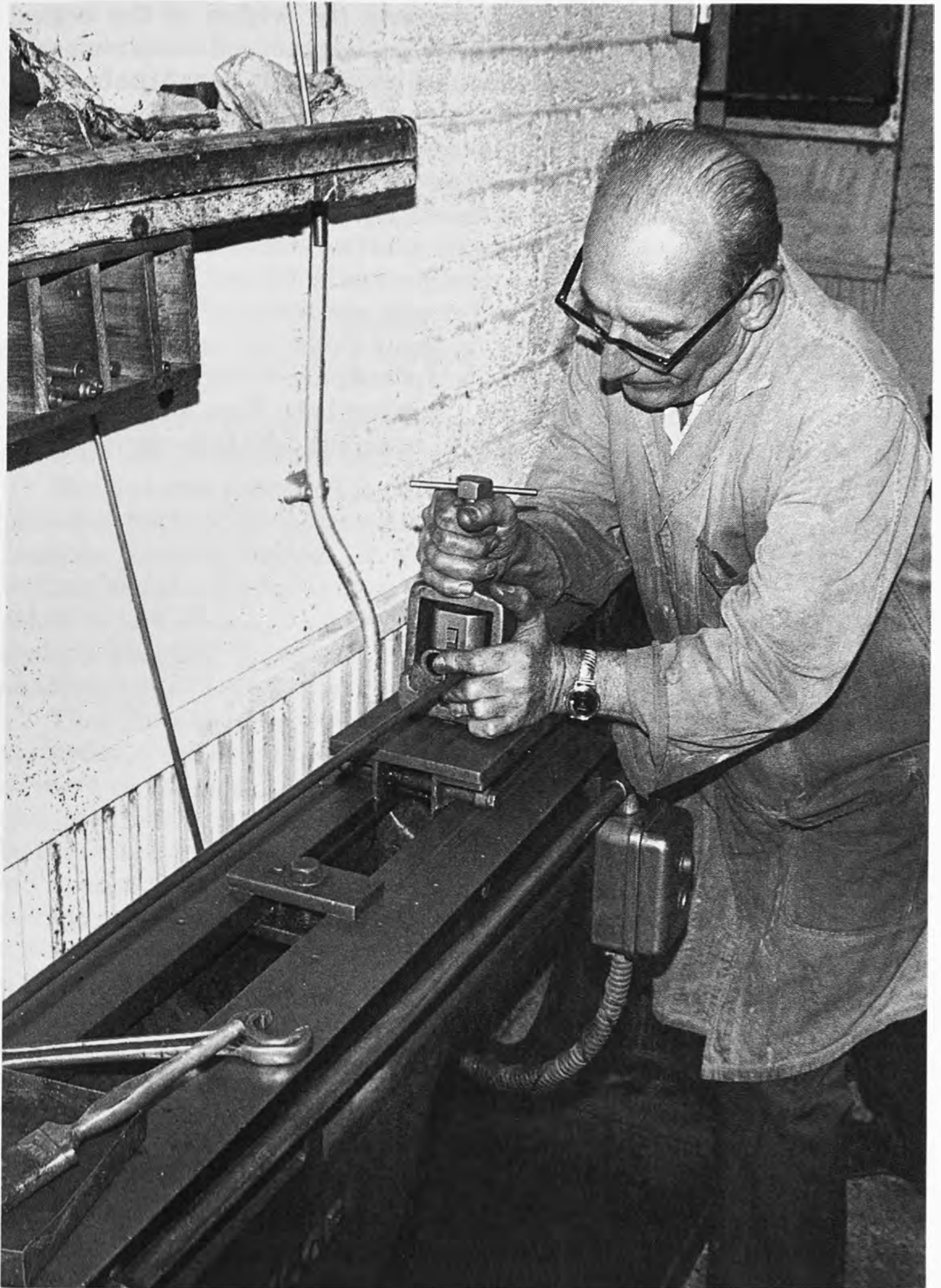
Because of the manner in which the work is organised it is not possible to see all the operations being carried out in one day. I might have to stay in the workshop for a month or more before it would be possible to say that *all* of the operations have been seen. To add to the difficulties much of the work is done in batches. This is very important where work is machined since special jigs and fixtures are employed and the machines have to be set up to do a specific operation. It would obviously be time wasting and grossly expensive to set up a machine to carry out an operation on one component so a batch will be machined and then put aside to be drawn upon as guns progress through the shop.

It would, of course, be possible to make the whole of the gun by hand but this would be inordinately expensive. Equally expensive, if not considerably more so, would be to make the gun entirely by machinery and modern metal

forming techniques. One only has to look at the complex beauty of an aircraft jet engine blade to see that the techniques employed to manufacture this small, but extremely intricate item could be used to make shotgun actions and components. One could, no doubt, produce "The Venus de Milo" by computer controlled machines but a "one off" would be more costly than the original and if made in large numbers it would no longer be "unique". This is where some of the expense of the best gun is to be found. The high quality of the raw materials cost money, one has only to look at the price for best quality stock blanks. The major expense is time. The machines employed are really only power driven files. They are used to shift the metal from the 3 1/2 lbs. weight of body forging. Other machines have some measure of "built in skill". This is because the skill went into the design and making of the jigs and fixtures. The skill that is used to finish the gun is where most of the money goes. Each gun is unique, no other gun is exactly like it, it is, if you like, sculpture in wood and metal.

You will have noticed that there is no quality control department at Brown's, it is not necessary, each man who works there is his own quality control, his own critical inspection department. In spite of this pride of craftsmanship it has to be emphasised that each gun and each part of the gun is unlike any other made before or after. Each is an individual creation and is subject to critical evaluation by both partners, Sidney Brown and Robin Brown. Not only do they examine the work of the rest of the team they also comment on the work of each other. This means that the critical analysis of all the work is continuous and very thorough. The work on even a simple item such as a trigger is not finished because the time allocated to its manufacture has run out or because it's five o'clock, the work finishes when the craftsman is satisfied that the trigger is as near perfection as he can make it. Each man will have his own standards, the firm will have its own rules, "this is how we like our triggers to be made, this is how we like our actions to be filed up," (in the case of Brown's, with fluted sides to reduce the width of the action and with double bars.) It is at this point that we move into the area of opinion and matters of personal taste. One might like the way one man files up the fences, not all are alike, but on a best gun whilst the style might vary the quality does not. Within limits the man who buys a bespoke gun can have things made the way he wants them (having regard to safety — a painting or a piece of sculpture does not have to undergo a proof test!) and if the customer's wishes clash with what the gunmaker considers to be appropriate it is the task of the gunmaker to alter the standards of his potential customer. The man might well want gold inlaid nude females pursued by satyrs frolicking along the action. The gunmaker may not wish to have his name on a gun so ornamented and if he can't change the views of the customer he can decline to make the gun. I have often wondered if this has ever happened!

Today, even with the benefit of ample funds it is not an easy matter to have the things you want made exactly as you would like them to be. Clothes, shoes and the binding of books come to mind as being some of things that can



Barrel work on "Best" gun

be made in small numbers to suit precisely the wishes of the critical customer. Into this special category of individually produced items comes the best gun. If you merely want a tool to be used and then discarded the best gun is not for you. If you wish to own something that is intensely personal, that is part of you and in which you can take both pride of ownership and pride in using then a best gun has to be considered. You may be fortunate enough to have the considerable pleasure of discussing with the gunmaker exactly what you think you need. If you can't wait up to two years and don't have the money for a new gun then perhaps a used gun can be altered to suit you. You could, of course, say that a firm like Brown's and the guns they make are totally irrelevant in today's society. In this I think you would be wrong. Without the ultimate we have no standard of comparison and in any case the world would be a sadder and less enjoyable place to be if you and I could not take pleasure and delight in looking at what we consider to be perfection — the best gun.