made both by firing the pieces from the ſhoulder, and from a firm block, at an equal diſtance, and with equal weights of the ſame powder and of the ſame ſhot.

To avoid every poſſibility of error, the quires of paper at which we fired were fixed againſt planks instead of being placed againſt the wall. From theſe trials frequently repeated, we found that the ſhot pier­ced an equal number of ſheets, whether it was fired from a barrel of 28, 30, 32, 34, 36, 38, or 40, inches in length. Nay more, we have compared two barrels of the ſame caliber, but one of them 33, and the other 66 inches long, by repeatedly firing them in the ſame manner as the others, at different diſtances, from 45 to 100 paces, and the reſults have always been the ſame, *i. e.* the barrel of 33 inches drove its ſhot through as many ſheets of paper as that of 66 did. The concluſion from all this is, that the difference of 10 inches in the length of the barrel, which ſeems to be more than is ever inſiſted upon among ſportſmen, produces no ſensible difference in the range of the piece ; and therefore, that every one may pleaſe himſelf in the length of his bar­rel, without either detriment or advantage to the range.

It may appear as an objection to this, that a duck- gun which is five or six feet long kills at a greater diſtance than a fowling-piece ; but this is not owing to its length, but to its greater weight and thickneſs, which give it ſuch additional ſtrength, that the ſhot may be increaſed, and the charge of powder doubled, trebled, and even quadrupled. But a barrel of five or six feet length would be very inconvenient for fowling. Thoſe who conſult the appearance of the piece, lightneſs, and the eaſe with which it is managed, will find that a bar­rel from 32 to 38 inches will anſwer beſt.

The next thing to be conſidered is, of what dimenſions the caliber or bore of a fowling-piece ought to be. This matter has been ſubjected to experiment, and it has been found, that a barrel of 22 or 24, which is the largeſt caliber uſually employed in fowling-pieces, throws its ſhot as cloſely as one of the ſmalleſt caliber, viz. of 30 or 32 @@(a).

As to the length and form of the ſtock, it may be laid down as a principle, that a long ſtock is preferable to a ſhort one, and at the ſame time rather more bent than uſual ; for a long ſtock fits firmer to the ſhoulder than a ſhort one, and particularly ſo when the ſhooter is accuſtomed to place his left hand, which principally ſupports the piece, near to the entrance of the ramrod into the ſtock.

It is certain, however, that the ſtock may be ſo form­ed as to be better ſuited to one man than another. For a tall, long-armed man, the ſtock of a gun ſhould be longer than for one of a leſs ſtature and ſhorter arm. That a ſtraight ſtock is proper for him who has high ſhoulders and a ſhort neck ; for, if it be much bent, it would be very difficult for him, eſpecially in the quick motion required in ſhooting at a flying or running ob­ject, to place the butt of the gun-ſtock firmly to the ſhoulder, the upper part alone would in general be fix­ed ; which would not only raiſe the muzzle, and conſequently ſhoot high, but make the recoil much more ſenſibly felt, than if the whole end of the ſtock were

firmly placed on his ſhoulder. Beſides, ſuppoſing the ſhooter to bring the butt home to his ſhoulder, he would ſcarcely be able to level his piece at the object. On the contrary, a man with low ſhoulders, and a long neck, requires a ſtock much beat ; for if it is ſtraight, he will, in the act of lowering his head to that place of the ſtock at which his cheek ſhould rest in taking aim, feel a conſtraint which he never experiences, when by the effect of the proper degree of bent, the ſtock lends him ſome aſſiſtance, and, as it were, meets his aim half way.

Having now deſcribed the fowling-piece which has been found to anſwer beſt, it will next be proper to give ſome inſtructions for the choice of gunpowder, ſhot, and wadding.

The various kinds of gunpowder are well known ; but, in the opinion of ſome experienced ſportſmen, Hervey’s battle-powder is the beſt. Thoſe who wiſh to examine the ſtrength of powder, may determine it by drying ſome of it very well, and then trying how many ſheets of paper it will drive the ſhot through, at the diſtance of 10 or 12 yards. In this trial we ſhould be careful to employ the same ſized ſhot in each experi­ment, the quantity both of the ſhot and the powder being regulated by exact weight ; otherwiſe we cannot, even in this experiment, arrive to any certainty in com­paring the ſtrength of different powders, or of the ſame powder at different times.

Powder ought to be kept very dry, for every degree of moiſture injures it ; and if considerable, the ſaltpetre is dissolved, and the intimate combination of the ſeveral ingredients is entirely deſtroyed. It is obſerved, that after firing with damp powder the piece becomes very foul, which ſeems to ariſe from the diminution of the activity of the fire in the exploſion. Flasks of copper or tin are much better for keeping powder in than thoſe made of leather, or than ſmall caſks. Their necks ought to be ſmall and well ſtopped with cork.

The *patent milled ſhot* is now very generally uſed, and is reckoned ſuperior to any other. The ſize of the ſhot muſt vary according to the particuliar ſpecies of game which is the object of the ſportſman’s purſuit, as well as be adapted to the ſeaſon. In the firſt month of partridge ſhooting, N⁰ 1. is most proper; for since at this time the birds ſpring near at hand, and we ſeldom fire at more than the diſtance of 40 paces, if the ſhooter takes his aim but tolerably well, it is almoſt impoſſible for a bird at this diſtance to eſcape in the circle which the ſhot forms.

As hares fit cloſer, and are thinly covered with fur at this ſeaſon, they may eaſily be killed with this ſhot at 30 or 35 paces. No 1. is equally proper for ſhoot­ing ſnipes or quails. About the beginning of Octo­ber, when the partridges are ſtronger, N⁰ 3. is the moſt proper ſhot to be uſed. Many ſportſmen uſe no other during the whole ſeaſon. The directions which have now been given refer only to the patent ſhot.

We ſhall now ſubjoin a table, which will show at one view the number of pellets compoſing an ounce weight of each sort of ſhot, the patent and the common, begin­ning with the ſmalleſt ſize.

@@@(a) In ſpeaking of the ſize of the caliber, we mean by 22 or 24, that ſo many balls exactly fitting it weigh juſt one pound ; and every caliber is marked in the ſame way.