shooter’s cry of the word "pull ” to the opening of the trap and flight of the bird. This is so much the case that not unfrequently the gun is tired solely by calculation of time, and before a sluggish bird has flown. In game-shooting the bird may rise in front or at either side of the shooter, or even behind him. Very rapid lateral movement of the gun may therefore be required, and it appears not only probable in itself but experimentally true that this can best be made by the left arm when it has to describe a circle of the shortest diameter. For this the best and safest position is when the left hand grasps the gun immediately in front of the trigger- guard. In pulling the trigger the finger should be well crooked, so that the pressure may be directly backwards, and no lateral dis­turbance may interfere with the aim at the most critical moment.

If the eye takes in all the rib of the gun when raised to the shoulder in position for firing, so that the full length of its surface is seen, the stock is too straight. If the rib is not seen at all, the stock is too crooked. When a stock is of the proper curve, the eye will catch the rib about one-third of its length from the muzzle, *i.e*., all the rib in front of that point will be visible, and all behind it out of sight. A straight stock is, however, preferable to a crooked one, which makes the gun shoot low,—a bad fault. It is of first-rate importance that the delicate lateral setting of the stock, as distinguished from the perpendicular curve, should bring the centre of the rib exactly into the line of sight. This fine desidera­tum may be arrived at conjointly by the sportsman and the maker of the gun ; the latter can be guided by information as to the sports­man’s height, length of arm, and breadth of chest. If this point is satisfactory it is immaterial whether a bird flies to the right hand or to the left, and the neglect of it is the reason why some sportsmen are good shots in one only of these directions.

In cleaning breechloaders, including the inside of the barrels, neither oil nor water should be used, but solely spirits of turpentine. The gun should never be laid aside on full-cock, as this weakens the mainsprings. As hammerless guns are necessarily on full-cock when taken down, the triggers should be drawn, but with the care­ful proviso that the points of the hammers strike upon a block of hard wood held firmly in front of them. The lock should never be snapped unless there is a discharged or a “dummy” cartridge in the barrel. No hammer can be made, of any metal or form of con­struction, that will not probably crack if it falls without something in front less trying than the hard and impassive breech. On sea voyages and in damp climates the barrels should be kept from the atmosphere by inserting into them wooden rods covered with woollen cloth, and in such cases the free application of turpentine will be found invaluable. Failing these rods, each end may be closed with wadding or corks. For oiling the locks the finest chronometer oil should be used, and only applied in minute quantities to the points of friction, not over all : oil dries up and if applied copiously frustrates the desired purpose. Raw linseed oil, frequently rubbed into a stock, hardens and preserves it. Explorers and travellers, whose lives may depend on their firearms, may usefully strengthen the weakest part of every gun, the handle of the stock, by wrapping it tightly round with whip-cord.

*Shooting Game.—*Space forbids entering at length on the modes of shooting the several varieties of game. All that is here possible is briefly to touch upon some of the salient points in the pursuit of the more common varieties.

Rabbits, on which young sportsmen generally first essay their “’prentice hand,” dash off for the nearest shelter with great rapidity, and should be instantaneously fired at, the aim being taken slightly in advance. If a rabbit has disappeared among brushwood, it may be not unavailing to fire right in front of the line it was seen to take. In “ferreting” the sportsman should stand clear of the burrow (over which he should never tread), and never fire at a rabbit until it is well away from the “bolt-hole.” Hares are less tenacious of life than rabbits, and, as it is an object not to mangle the body and so cause an effusion of blood, the eyes of the spoils­man should be fixed solely on the tips of the ears in whatever direction the animal is going, when the shot is instantaneously fatal. A hare coming straight towards a sportsman should not be fired at ; he should stand quite motionless until it comes within 30 yards, when on his making a slight sound or movement it will turn aside and give an easy shot. No other direction need be given on this head (save possibly that the shot is more easy when a hare is ascending a ridge across which it may be running than when it is descending from the crown to the furrow), seeing that the one principle of firing solely at the ears involves everything. Roedeer are usually killed with buckshot—although a small rifle is pre­ferable—the “guns” being posted at the likely passes. The neck or shoulder should be fired at. They arc easily killed when within fair distance, but are exceedingly clever in keeping out of range and in detecting the presence of the lurking sportsman. They also have the trick, in common with the elephant, of doubling back and passing round any knoll, coming out on its other side and then continuing their intended course. Of this instinctive habit the sportsman should avail himself.

Success in grouse-shooting, probably the finest of all sports from

every point of view, depends mainly on vigilance and careful atten­tion to the movements of the dogs, and following them well up as soon as there are indications of game being in front. Save that a cunning old cock will after rising immediately dip down to nearly the level of the heather and go off with wondrously baffling speed, there is no peculiarity in the flight of grouse calling for special remark. Like partridges, they generally fly straight and nearly horizontally. As the season advances, their wariness and the matured strength of the young birds make their pursuit more difficult, but otherwise they afford fair shots. “ Driving” is now quite a recognized branch of grouse-shooting. The “guns” being posted in artificial places of concealment in the line of flight known to be usually taken by the birds on being disturbed by beaters, the shots are taken as the birds are coming overhead. Their speed is so great that it is needless to fire if they have once passed the shooter, seeing that the aim must be taken some feet in front. @@1 It has been found useful for the sportsman to crouch without motion until the birds are coming within distance, when, suddenly showing himself, they are startled and throw their heads up, thus breaking their flight and giving the gun a fair chance. Perhaps the easiest and most fatal shots are at single birds coming straight towards the sportsman, taken at about 30 yards. The aim should be high, and it is aided by the recoil of a gun when fired, which throws the muzzle up in the line of flight. The pellets also strike the head and neck, and with such force that, when meeting the bird, No. 7 shot is most deadly when so discharged. The recoil of a gun when fired “ high ” is also useful in shooting with a rifle any large bird passing overhead ; the shooter should face the bird. Driving is severe work if thoroughly carried out, as the sportsmen, as soon as one beat is over, have to find their way rapidly to the next position. It is therefore not an effeminate sport, and it probably indirectly maintains the number of the stock-birds by killing off the old leading cocks (which virtually are vermin). Setters arc the proper dogs for grouse-shooting, their hairy feet being well protected from the heather ; hence to maintain vigour they require to drink water frequently and even to squat in shallow pools. Pointers are preferable for dry moors, particularly in hot weather.

Partridge-shooting is akin to grouse-shooting in respect of the mode of pursuit, the difference lying in its being carried on mostly upon cultivated or enclosed land. Both in partridge-shooting and in grouse-shooting one bird only ought to be singled out and shot at; no success will follow firing into the “brown” of a covey. Old sportsmen regret that shooting over dogs (pointers being pre­ferable to the swifter and more dashing setters) is going out of practice ; but the close cutting of the grain crops now in vogue leaves so little stubble that the approach of the dogs is seen by the birds, which, generally rising wild, afford few “shots to points.” Hence the system of sportsmen walking in line (with no dogs save retrievers) and taking what birds rise before them, and so driving them into turnips or other covert, or of having them “driven” by beaters, is almost enforced. When driven into such coverts the birds are apt to run before the shooters and take their flight from the far end of the field. This may be prevented by the sportsman not advancing directly, but in a series of circuits ; then the birds, becoming uncertain as to which way they should run, sit close and only rise on his very near approach. Of course this excellent but almost unknown system can only be well carried out by a single shooter, or by two at the most. In “driving” the “guns” are posted in a line at some distance from each other, under the con­cealment of a hedge some 20 yards in their front. Towards this the beaters (with a fugleman on horseback, if necessary) drive the birds. The shots are generally very difficult, the birds flying with remarkable speed, and the shooter being also often bewildered by the number of smaller birds, such as the various kinds of thrushes, which precede or accompany the partridges ; their sudden appear­ance on coming over the hedge is also trying, whereas the approach of grouse can be seen. These two systems—“driving” and the circular progression in covert—are of recent introduction. The former has developed greater skill in shooting.

The art of shooting pheasants depends upon the fact that, unlike partridges or grouse, the birds generally steadily ascend in their flight ; hence the tendency is to shoot under them. This upward flight is greatest in coverts, until it sometimes becomes almost perpendicular, birds rising in this way being called “rocketers.” The inexperienced shooter is also misled by the manner in which the tail is spread out like a fan, concealing the body, and thus diverting the aim from the body upon the tail feathers. To aim high, therefore, is the golden rule. The shooter should face birds which fly rapidly overhead, in the way described above.

To kill snipe well one must hunt down the wind—an exceptional practice—and on the bird rising fire at once, or, failing that, give it time to change its few preliminary zigzag motions into a steady flight.

@@@1 A carrier pigeon can fly a little over 4 miles 5 furlongs in four minutes,— an average of nearly 102 feet a second. Assuming the distance to be 40 yards (a long shot), the aim taken at a bird flying across the shooter at that speed should be more than 5 feet in advance, the flight of the shot to a distance of 40 yards requiring one-nineteenth of a second.