

- 221 *Xema Sabini*.....Sabine's gull.  
 222† *Sterna Caspia*.....The Caspian tern, and young.  
 223† " *macroura*.....The long-tailed tern.  
 224 " *hirundo*.....The common tern.  
 225† *Hydrochelidon plumbea*, The black tern.  
 226\* *Stercorarius parasiticus*.....The arctic skua.
- FAMILY.—*Anatidæ* (The Duck Tribe).  
 227 *Fuligula collaris*.....The collared duck.  
 228\* " *cristata*.....The crested duck.  
 229† " *marila*.....The scaup duck.  
 230\* " *mariloides*....The lesser scaup duck.  
 231† *Nyroca Americana*.....The red-headed duck.  
 232 " *valisneria*.....The canvas-backed duck.  
 233† *Otangula Americana*...The American golden eye duck.  
 234 " *histrionica*...The harlequin duck.  
 235† " *albeola*.....The buff-headed duck.  
 236 *Harelda glacialis*.....The long-tailed duck, (one old and three young, in winter and summer plumage).  
 237† *Somateria mollissima*...The Eider duck (rare).  
 238† " *Spectabilis*...The king duck (accidental), and young.  
 239\* *Oidemia nigra*.....The black duck (rare).  
 240† " *fusca*.....The scoter.  
 241† " *perspicillata*...The surf duck.  
 242† *Erismatura rubida*.....The spiny-tailed or ruddy duck.  
 243† *Aix Sponsa*.....The summer duck.  
 244† *Mareca Americana*.....The American widgeon.  
 245† *Dafila acuta*.....The pin-tailed duck.  
 246† *Spatula clypeata*.....The shoveller duck.  
 247† *Anas boschas*.....The mallard.  
 248 " *bimaculata*.....Brewer's Duck (rare, variable, almost certainly a hybrid between the preceding and following).  
 249 " *obscura*.....The dusky duck.  
 250† *Querquedula Carolinensis*...The green-winged teal.  
 251† " *discors*...The blue-winged teal.  
 252† *Chaulesternus strepera*...The gadwall.  
 253\* *Bernicia Brenta*.....The Brent goose.  
 254 " *Hutchinsii*...Hutchins's goose.  
 255 " *Canadensis*...The Canada goose.  
 256\* *Anser hyperboreus*...The snow goose.  
 257 " *coerulescens*.....Supposed to be female of the above.  
 258 *Cygnus Americanus*...American swan.  
 259 " *Pasmori*.....Pasmore's swan (may possibly be a state of the following).  
 260 " *buccinator*.....Trumpeter swan.  
 261† *Mergus merganser*.....The goosander.  
 262† " *serrator*.....The red-breasted merganser.  
 263† " *cucullatus*.....The hooded merganser.
- FAMILY.—*Alcidæ* (Divers.)  
 264† *Colymbus glacialis*.....The great northern diver or loon.  
 265† " *septentrionalis*...The red-throated diver.  
 266† *Colymbus arcticus*.....Black-throated diver.  
 267† *Podiceps griseigena*.....The red-necked grebe.  
 268\* " *cornutus*.....The horned grebe.  
 269† " *cristatus*.....Crested grebe.  
 270† *Podylymbus Carolinensis*, The pied-bill dobochick, and young.
- FAMILY.—*Alcidæ* (Auks and Penguins).  
 271\* *Arctica alio*.....The little Auk (rare).

## Selected Articles.

### INTRODUCTION OF BREECH-LOADERS.

A most difficult scientific problem, complicated by many questions of expediency, is now being placed before the military administration of every civilized country. Upon the different solutions of the question as to the best arm for infantry will, in such warlike times as ours, probably in a great measure depend the course of the military history of the next generation. The enormous expense attending a change in the weapons of a whole army is a good reason why any step now taken will not easily be retraced. All the gun makers of the United Kingdom, and all the breech-loader inventors of the world, are now on the *qui vive* since the publication of the War-office advertisement for a breech-loading rifle, to replace the present Snider-Enfield. The weight of the English breech-loader of the future is not to exceed 9 lbs. 5 ozs. without bayonet; it is to be 51 ins. long; the weight of sixty rounds of ammunition is limited to 61 lbs. 4 ozs.; the cartridge must carry their own ignition; and the gun should be able to fire at least twelve rounds per. minute. Very wisely, a prize has been offered for a repeating arm, and the last day for sending in the weapons intended to compete is the 30th of March next. Meanwhile, Enfield is at work day and night turning out the converted Snider-Enfields. Besides these, an order for some 25,000 of the Westley Richards form of breech-loader is being carried out. We should say that there is not much chance for the prolonged existence of this ingenious gun side by side with the many excellent American rifles with their admirable copper cartridge. As, however, the ordinary Westley Richards can be used with the common ammunition, the breech-loading guns now being made will probably be employed to work up the existing supply. The visitor to Enfield is surprised to see in course of manufacture, side by side with these improved implements of destruction, a number of smooth-bores—antique Brown Bessies, in fact. On inquiry, he is told that these guns are intended for Sepoy troops in India, in order to avoid offending them with the greased cartridges required with rifles. If this is true—and we have no reason to doubt the substantial accuracy of this answer to the question we made—it is strange that recourse cannot be had to some other lubricant than animal fat for cartridges intended for the black East India troops. Vegetable oil, paraffine, some composition of bees-wax, a dozen other lubricants, in fact, could be tried.

The immediate adoption of a converted arm has thus given time for a careful choice of a standard weapon. The French have been much quicker in their decision; but time will show whether their haste is speed. There have, indeed, been some rumors that the Chassepot gun, after having been accepted by the French Emperor, and after orders for large numbers have been given out, has lately been rejected. We believe however, that this is a mistake, or, at any rate, premature. The Chassepot breech-loader, the "invention" of a French government inspector of musketry of that name, is mainly an improved form of the Prussian needle-gun. Less work is thrown on the needle by its