THE DAILY EVENING TELEGRAPH-PHILADELPHIA, FRIDAY, AUGUST 23, 1861.

MINICRY AMONG ANIMALS.

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Mimicry and Other Protective Resem-binuces Among Animals. [Conclusion.]

There are a considerable number of Diptera, or two-winged flies, that closely resemblewasps and bees, and no doubt derive benefit, from the wholesome dread much which those insects excite. The Midas dives, and other species of large Brazilian files, have dark wings and metallic blue elongate bodies, resembling the large stinging Sphegida of the same country; and a very large fly of the genus Asilus has black banded wings and the abdomen tipped with rich orange, so as exactly to resemble the fine bee Englossa dimidiata, and both are found in the same parts of South America. We have also in our own country species of Bombylius which are almost exactly like bees. In these cases the end gained by the mimicry is no doubt freedom from attack, but it has sometimes an altogether different purpose. There are a number of parasitic files whose larva feed upon the larva of bees, flies such as the British genus Volucella and many of the tropical Bombylii, and most of these are exactly like the particular species of bee they prey upon, so that they can enter their nests unsuspected to deposit their eggs. There are also bees that minio bees. The cuckoo bees of the genus Nomada are parasitic on the Andrenidae, and they resemble either wasps or species of Andrena; and the parasitic bumble-bees of the genus Apathus almost exactly resemble the species of humble-bees in whose nests they are reared. Mr. Bates informs us that he found numbers of these "cuckoo"-bees and flies on the Amazon, which all wore the livery of working bees peculiar to the same country.

There is a genus of small spiders in the tropics which feed on ants, and they are exactly like ants themselves, which no doubt gives them more opportunity of seizing their prey; and Mr. Bates found on the Amazon a spe of Mantis which exactly resembled the white ants which it had fed upen, as well as several species of crickets (Scaphura), which resembled in a wonderful manner different sand wasps of large size, which are constantly on the search for crickets to provision their nests with.

Perhaps the most extraordinary of all is the large caterpillar mentioned by Mr. Bates, which startled him by its close resemblance to a small snake. The first three segments behind the head were dilatable at the will of the insect, and had on each side a large black pupillated spot, which resembled the eye of the reptile. Moreover, it resembled a polsonous viper, not a harmless species of snake, as was proved by the imitation of keeled scales on the crown produced by the recumbent feet, as the caterpillar threw itself backward !

The attitudes of many of the tropical spiders are most extraordinary and deceptive, but little attention has been paid to them. They often mimic other insects, and some, Mr. Bates assures us, are exactly like flower-buds, and take their station in the axils of leaves. where they remain motionless waiting for their prey.

Having thus shown how varied and extraordinary are the modes in which mimicry occurs among insects, we have now to inquire if anything of the same kind is to be observed among vertebrated animals. When we consider all the conditions necessary to produce a good deceptive imitation, we shall see at once that such can very rarely occur in the higher animals, since they possess none of those facilities for the almost infinite modifications of external form which exist in the very nature of insect organization. The outer covering of insects being more or less solid and horny, they are capable of almost any amount of change of form and appearance without any essential modification internally. In many groups, the wings give much of the character. and these organs may be much modified both in form and color without interfering with their special functions. Again: the number of species of insects is so great, and there is such diversity of form and proportion in every group, that the chances of an accidental approximation in size, form, and color, of one insect to another of a different group, are very considerable; and it is these chance approximations that furnish the basis of mimicry, to be continually advanced and perfected by the survival of those varieties only which tend in the right direction. In the Vertebrata, on the contrary, the skeleton being internal, the external form depends almost entirely on the proportions and arrangement f that skeleton, which again is strictly adapted to the functions necessary for the well-being of the animal. The form cannot therefore be rapidly modified by variation, and the thin and flexible integument will not admit of the development of such strange protuberances as occur continually in insects. The number of species of each group in the same country is also comparatively small, and thus the chances of that first accidental resemblance which is necessary for natural selection to work upon are much diminished. We can hardly see the possibility of a mimicry by which the elk could escape from the wolf, or the buffalo from the tiger. There is, however, in one group of Vertebrata such a general similarity of form, that a very slight modification, if accompanied by identity of color, would produce the necessary amount of resemblance: and at the same time there exist a number of species which it would be advantageous for others to resemble, since they are armed with the most fatal weapons of offense. We accordingly find that reptiles furnish us with a very remarkable and instructive case of true mimiery. There are in tropical America a number of venomous snakes of the genus Elaps, which are ornamented with brilliant colors disposed in a peculiar manner. The ground color is generally bright red, on which are black bands of various widths, and sometimes divided into two or three by yellow rings. Now, in the same country are found several genera of harmless snakes, having no affinity whatever with the above, but colored exactly the same. For example, the poisonous Elaps fulvius often occurs in Guatemala with simple black bands on a coral red-ground; and in the same country is found the harmless snake Pliocerus equalis, colored and banded in identically the same manner. A variety of Elaps corrallinus has the black bands narrowly bordered with yellow on the same red ground color; and a harmless snake, Homalocranium semicinctum, has exacty the same markings, and both are found in The deadly Elaps lemniscatus has Mexico. the black bands very broad, and each of them divided into three by narrow yellow rings; and this again is exactly copied by a harmless snake, Pliocerus elapoides, which is found along with its model in Mexico. But, more remarkable still, there is in South America a third group of snakes, the genus Oxyrhopus, doubtfully venomous, and having no immediate affinity with either of the preceding, which has also the same carious distribution of colors, namely, variously disposed rings of red, yellow, and black; and there are some cases in which species of all three of these groups similarly marked inhabit the same district. For example, in Elapshemiprichii the ground color appears to be

black, with alternations of two narrow yellow bands and a broader red one; and of this pattern again we have an exact double in Oxyrhopus formesus, both being found in many localities of tropical South America. What adds much to the extraordinary

character of these resemblances is the fact, that nowhere in the world but in America are there any snakes at all which have this style of coloring. Dr. Gunther, of the British Museum, who has kindly furnished the details here referred to, assures us that this is the case; and that red, black, and yellow rings occur together on no other snakes in the world but on Elaps and the species which so closely resemble it. In all these cases the size and form, as well as the coloration, are so much alike that none but a naturalist would distinguish the harmless from the poisonous species.

Many of the small tree-frogs are no doubt also mimickers. When seen in their natural attitudes, we have been often unable to distinguish them from beetles or other insects sitting upon leaves; but regret to say we neglected to observe what species or groups they most resembled, and the subject does not yet seem to have attracted the attention of naturalists abroad.

In the class of birds there are a number of cases that make some approach to mimi-cry, such as the resemblance of the cuckoos, a weak and defenseless group of birds, to hawks and Gallinace. There is, however, one example which goes much further than this, and seems to be of exactly the same nature as the many cases of insect mimicry which have been already given, In Australia and the Moluccas there is a genus of honeysuckers called Tropidorhynchus, good-sized birds, very strong and active, having powerful grasping claws, and long, curved, sharp beaks. They assemble together in groups and small flocks, and they have a very loud bawling note, which can be heard at a great distance, and serves to collect a number together in time of dauger. They are very plentiful and very pugnacious, frequently driving away crows and even hawks which perch on a tree where a few of them are assembled. They are all of rather dull and obscure colors. Now, in the same countries there is a group of orioles, forming the genus Mimeta, much weaker birds, which have lost the gay coloring of their allies, and are usually olive green or brown, and in several cases they have come to resemble most curiously the Tropidohynchus of the same island. For example, in the Island of Bouru is found the Tropidorhynchus bournensis of a dull earthy color, and the Mimeta bouruensis, which resembles it in the following particulars :- The upper and under surfaces of the two birds are exactly of the same tints of dark and light brown; the Tropidorhynchus has a large bare black patch round the eye; this is copied in the Mimeta by a patch of black feathers. The top of the head of the Tropidorhynchus has a scaly appearance from the narrow scaled-formed feathers, which are imitated by the broader feathers of the Mimeta having a dusky line down each. The Tropidorhynchus has a pale ruff formed curious recurved feathers on the of nape (which has given the whole genus

the name of Friar birds); this is represented in the Mimeta by a pale band the same position. Lastly, the bill of the Tropidorhynchus is raised into a protuberant keel at the base, and the Mimeta has the same character, although it is not a common one in the genus. The result is that, on a superficial examination, the birds are identical, although they have important structural differences, and cannot be placed near each other in any natural arrangement.

Here, then, we have two cases of perfect mimicry and two others of good approximation, occurring between species of the same two genera of birds; and in three of these cases the pairs that resemble each other are together in the same island, and to found which they are peculiar. In all these cases the Tropidorhynchus is rather larger than Mimeta, but the difference is not bethe yond the limits of variation in species, and the two genera are somewhat alike in form and proportion. There are, no doubt, some special enemies by which many small birds are attacked, but which are afraid of the Tropidorhynchus (probably some of the hawks), and thus it becomes advantageous for the weak Mimeta to resemble the strong, pugnacious, noisy, and very abundant Tropi dorhynchus. Among the Mammalia the only case which may be true mimicry is that of the insectivorous genus Cladobates, found in the Malay countries, several species of which very closely resemble squirrels. The size is about the same, the long bushy tail is carried in the same way, and the colors are very similar. In case the use of the resemblance this must be to enable the Cladobates to approach the insects or small birds on which it feeds, under the disguise of the harmless fruit-eating squirrel. Having now completed our survey of the mest prominent and remarkable cases of mimicry that have yet been noticed, we must say something of the objections that have been made to theory of their production given by Mr. Bates, and which we have endeavored to illustrate and enforce in the preceding pages. Three counter explanations have been proposed. Professor Westwood admits the fact of the mimiory and its probable use to the insect, but maintains that each species was created a mimic for the purpose of the protection thus afforded it. Mr. Andrew Murray, in his paper on the "Disguises of Nature," inclines to the opinion that similar conditions of food and of surrounding circumstances have acted in some unknown way to produce the resemblances; and at a recent meeting of the Entomological Society of London; when the subject was discussed Dr. Sharp maintained a similar view, and added a third objection-that hereditary or the reversal to ancestral types of form and coloration, might have produced many of the cases of mimicry. Against the special oreation of mimicking species there are all the objections and difficul ties in the way of special creation in other cases, with the addition of a few that are peculiar to it. The most obvious is, that we have gradations of mimicry and of protective resemblance-a fact which is strongly sugges tive of a natural process having been at work. Another very serious objection is, that as mimicry has been shown to be useful only to those species and groups which are rare and probably dying out, and would cease to have any effect should the proportionate abundance of the two species be reversed, it follows that on the special-creation theory the one species must have been created plentiful, the other rare; and, notwithstanding the many causes that continually tend to alter the proportions of species, these two species must have always been specially maintained at their respective proportions, or the very pur-liar characteristics would have completely found. A third dimension bet when the failed. A third difficulty is, that although it is very easy to understand how mimicry may be brought about by variation and the survi val of the fittest, it seems a very atrauge thing for a Greater to protect an animal by making 1 it imitate another, when the very assumption

of a Creator implies His power to create it so as to require no such circuitous protection. These appear to be fatal objections to the application of the special-creation theory to this particular case. The other two improved explanations.

which may be shortly expressed as the theo ries of "similar conditions" and of "heredity," agree in making mimicry, where it exists, an adventitious circumstance not necessarily connected with the well-being of the mimicking species. But several of the most striking and most constant facts which have been adduced directly contradict both of these hypotheses. The law that mimicry is confined to a few groups only is one of these, for "similar conditions" must act more or less on all groups in a limited region, and "heredity" must infinence all groups related to each other in an equal degree. Again, the general fact that those species which mimic others are rare, while those which are imitated are abundant, is in no way explained by either of these theories, any more than is the frequent occurrence of some palpable mode of protection in the imitated species. "Reversion to an ancestral type" no way explains why the imitator and the imitated always inhabit the very same district, whereas allied forms of every degree of nearness and remoteness generally inhabit different countries, and often different quarters of the globe; and neither it, nor "similar conditions," will account for the likeness between species of distinct groups being superficial only-a disguise, not a true resemblance; for the imitation of bark, of leaves, of sticks, of dung; for the resemblance between species in different orders, and even different classes and sub-kingdoms; and finally, for the graduated series of the phenomena beginning with a general harmony and adap tation of tint in autumn and winter moths and in arctic and desert animals; and ending with those complete cases of detailed mimicry which not only deceive predacious animals, but puzzle the most experienced insect collectors and the most learned entomologists. But there is yet another series of phenom-

ena connected with this subject, which considerably strengthens the view here adopted, while it seems quite incompatible with either of the other hypotheses; namely, the relation of protective coloring and mimicry to the sex-nal differences of animals. It will be clear to every one that if two animals, which as regards "external conditions" and "hereditary descent" are exactly alike, yet differ remarkably in coloration, one resembling a protected species and the other not, the resemblance that exists in one only, can hardly be imputed to the influence of external conditions or as the effect of heredity. And if, further, it can be proved that the one requires protection more than the other, and that in several cases it is that one which mimics the protected species, while the one that least requires protection never does so, it will afford very strong corroborative evidence that there is a real connection between the necessity for protection and the phenomenon of mimicry. Now the sexes of insects offer us a test of the nature here indicated, and appear to furnish one of the most conclusive arguments in favor of the theory that the phenomena termed "mimicry" are produced by natural selection.

The comparative importance of the sexes varies much in different classes of animals. In the higher vertebrates, where the number of young produced at a birth is small and the same individuals breed many years in succession, the preservation of both sexes is almost equally important. In all the numerous cases in which the male protects the female and her offspring, or helps to supply them with food, his importance in the economy of nature is proportionally increased, though it is never, perhap, quite equal to that of the female. In insects the case is very different; they pair but once in their lives, and the prolonged existence of the male is in most cases quite unnecessary continuance of the race. The female, however, must continue to exist long enough to deposit her eggs in a place adapted for the development and growth of the progeny. Hence there is a wide difference in the need for protection in the two sexes; and we should, therefore, expect to find that in some cases the special protection given to the female was in the male less in amount or altogether wanting. The facts entirely confirm this expectation. In the spectre insects (Phasmidae) it is often the females alone that so strikingly resemble leaves, while the males show only a rude approximation. The male Diadema bolina is a very handsome and conspicuous butterily. without a sign of protective or imitative coloring, while the female is entirely unlike her partner, and is one of the most wonderful cases of mimicry on record, resembling most accurately the common Danais chrysippus, in whose company it is often found. So in several species of South American Pieris, the males are white and black, of a similar type of coloring to our own "cabbage" butterflies, while the females are rich yellow and buff, spotted and marked so as to exactly resemble species of Heliconidæ with which they associate in the forest. In the Malay archipelago Mr. Wallace found a Diadema which had always been considered a male insect on account of its glossy metallic-blue tints, while its companion of sober brown was looked upon as the female. He discovered, however, that the reverse is the case, and that the rich and glossy colors of the female are imitative and protective, since they cause her exactly to resemble the common Euploca midamus of the same regions, a species which has been already mentioned in this article as mimicked by another butterfly Papilio paradoxa. In this case, and in that of Diadema' bolina, there is no difference in the habits of the two sexes, which fly in similar localities; so that the influence of "external conditions" cannot be invoked here as it has been in the case of the South American Pieris pyrrha and allies, where the white males frequent open sunny places, while the Helicenialike females haunt the shades of the forest. We may impute to the same general eause -the greater need of protection for the female owing to her weaker flight, greater exposure to attack, and supreme importance-the fact of the colors of female insects being so very generally duller and less conspicuous than those of the other sex. And that it is chiefly due to this cause rather than to what Mr Darwin terms "sexual selection," appears to be shown by the otherwise inxplicable fact that in the groups which have a protection of any kind independent of concealment, sexual differences of color are either quite wanting or slightly developed. The Heliconidæ and Danaidæ, protected by a disagreeable flavor, have the females as bright and conspicuous as the males, and very rarely differing at all from them. The stinging Hymenoptera have the two sexes equally well colored. The Carabidæ, the Chrysomelidæ, and the Telephori have both sexes equally conspicuous, and seldom differing in colors. The brilliant Curculios, which are protected by their hard-ness, are brilliant in both sexes. Lastly, the glittering Cetoniadse and Buprestidae, which seem to be protected by their hard and polished coats, their rapid motions and peculiar habits, present few sexual differences of color, while sexual selection has often manifested itself by structural differences, such as horns, spines or other processes.

The same law manifests itself in birds. The female, while sitting on her eggs, re quires protection by concealment to a much greater extent than the male; and we ac cordingly find that in a large majority of the cases in which the male birds are distinguished by unusual brilliancy of plumage, the females are much more obscure, and often remarkably plain-colored. The exceptions are such as eminently to prove the rule, for in most cases we can see a very good rea son for them. In particular, there a few in stances among wading and gallinaceous birds in which the female has decidedly more brilliant colors than the male; but it is a most curious and interesting fact that in most, if not all, these cases the males sit upon the eggs; so that this exception to the usual rule almost demonstrates that it is because the process of incubation is at once very important and very dangerous, that the protection of obscure coloring is developed. The most striking example is that of the sooty phalarope (Phalaopus fulicarius, Linn.) In winter plumage the sexes of this bird are alike in coloration, but in summer the female is much the most conspicuous, having a black head, dark wings, and reddish-brown back, while the male is nearly uniform brown, with dusky spots. Mr. Gould, in his "Birds of Great Britain," ligures the two sexes in both winter and summer plumage, and remarks on the strange peculiarity of the usual colors of the two sexes being reversed, and also on the still more curious fact that the "male alone sits on the eggs," which are deposited on the bare ground. In another British bird, the dotterell, the female is also lighter and more brightly colored than the male; and it seems to be proven that the males assist in incubation, even if they do not perform it entirely; for Mr. Gould tells us, 'that they have been shot with the breast bare of feathers, caused by sitting on the eggs." The small quail-like birds, forming the genus Turnix, have also generally large and bright-colored females, and we are told by Mr. Jerdon, in his "Birds of India," are that "the natives report that during the breeding season the females desert their eggs, and associate in flocks while the males are em-ployed in hatching the eggs." It is also an ascertained fact that the females are more bold and pugnacious than the males. A further confirmation of this view is to be found in the fact (not hitherto noticed) that in a large majority of the cases in which bright colors exist in both sexes, incubation takes place in a dark hole or in a dome-shaped nest. Female kingfishers are often equally brilliant with the males, and they build in holes in banks. Bee-eaters, trogons, motmots, and toucans all build in holes, and in none is there any difference in the sexes, although they are, without exception, showy birds. Parrots build in holes in trees, and in the majority of cases they present no marked sexual difference tending to the concealment of the female. Woodpeckers are in the same category, since, though the sexes often differ in color, the female is not generally less con-spicuous than the male. Wagtails and titmice build concealed nests, and the females are nearly as gay as their mates. The female of the pretty Australian bird Pardalotus punctatus is very conspicuously spotted on the upper surface, and it builds in a hole in the ground. The gay-colored hang-nests (Icteringe), and the equally brilliant Tanagers, may be well contrasted: for the former, concealed in their covered nests, present little or no

Гехив ns follows: 4 Claw Bars. 2 Shackle Bars. 9.560 14 Coupling Links. 4 Spike Mauls, 2 Spike Punches, 2 Turn-Tables, 2 Turn-Tables, 25 Cross Ties, 1 Fire Tongs, 2 Push Car Wheels, 2 Screw Wrenches, 1 Contemport

GOVERNMENT SALES.

GOVERNMENT SALE OF THE MILITARY

G OVERNMENT SALE OF THE MILLART G Raihoad at Brazos Santiago, Texas.-Odice Onier Quartermaster Fifth Millitary District, New Orienns, La., July 9, 1807. Senied Proposals will be received at this office until 12 M., August 24, 1807, for the purchase of all the right, litle, and interest of the United States in and to the United States Millitary Rail-road from Brazos Santiago to White's Ranche, Devre sale will include the entire track and

The sale will include the entire track and sloings, buildings, water stations, turn-tables, etc., the railioad materials, the supplies per-taining to the road, together with the rolling stock, cors, machinery, and other equipment,

- 2 Pinch Bars. 4 Square Brasses.
- 2 Shipping Boxes. 7 Flat Cars. 9 Bailroad Chairs,
- Drow's Fe
- Railroad Frogs and Switch Stands.
- Track Gauge. pounds Raliroad Iron. Locomotive and Tender.
- Locomotive. Head-light Locomotive

- 6 pounds Car Springs, 2 Jackscrews and Levers
- p: unds Railroad Spikes, miles Railroad Track.

- Cooking Stove.
- Stove. . Hand Cars.
- Push Car.

This sale will not include the bridge over the loca Chica. The sale will not include the title to the

and, which does not belong to the United States. This road is about ten miles in length, and

extends from Brazos Santiago to White's Ranche, on the Rio Grande. Fron this point connection is made by steamer with Browns-

while and Matamorns. The route is the shortest 'nd best for the im-mense traffic between the Gulf of Mexico and the interior . Southern Texas and Northern Mexico, and the communication by rail slone call readily be extended to Brownsville

The road already completed saves thirty miles of difficult and tortuous navigation. The road is five feet gauge, good ties, T rall, and full spiked.

The property may be inspected on application to Captain C. H. Hoyt, A. Q. M., Brownsville, Texas, and any information desired may be ob-tained from that officer, or from the office of the Chief Quartermaster Fifth Military District, New Orleans, La, A condition of the sale will be that transpor-

tation shall be fornished for all Government troops and supplies whenever required, at rates not to exceed those paid by the United States to other railroad companies in the Fifth Military District, The terms of payment accepted will be those

considered the most favorable to the Govern ment. Ten per cent. cash, in Government funds, to

be paid on acceptance of proposal, The Government reserves the right to reject any or all proposals. Proposals should be indorsed "Proposals for Troposais should be induced in Proposals for the purchase of Brazos Santiago and Rio Grande Railroad," and addressed "Brevet Lleutenant-Colonel A. J. McGonnigle, A. Q. M. U. S. Army, office Chief Quartermaster Fifth Military Dis-trict, New Orleans, La." A. G. McGONNIGLE, Broyet Lient Col and A. O. M. U. S. Army

Brevet Lieut.-Col. and A. Q. M. U. S. Army, 8 20 4t in charge of office. T ARGE SALE OF PUBLIC PROPERTY.

OFFICE ARMY CLOTHING AND EQUIPAGE, ST. LOUIS, MO., August 15, 1867. Will be sold at public auction, at the DEFOT OF ARMY CLOTHING AND EQUIPAGE, No. 907 North MAIN Street, St. Louis, on TUES-DAY, the 3d day of September next, com-mencing at 11 o'clock A. M., to be continued from day to day, the following articles of Army Clothing and Equipage.— 72,000 Great Coats (hoorsemen's).

55,000 Great Coats (horsemen's). 50,000 Uniform Hats. 50,000 Ostrich Feathers.

0,000 Hat Cords and Tassels (blue).

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the bidders as may choose to attend. Proposals should be endorsed on the envelope "Proposals for New Jail," and be directed to the "Secretary of the Interior, Washington, D.C." O. H. BROWNING,

Secretary of the Interior.

PROPOSALS.

I MPROVEMENT OF THE DES MOINES RAFIDS OF THE MISSISSIPPI BIVES. U. 8. ENGINEER'S OFFICE. DAVENFORT, IOWS, July 24, 1807. } Sealed proposals. in duplication of the second

DAVESPORT, IOWA, July 24, 1967. J Sealed proposals, in duplicate, will be ra-ceived at this office until 12 M., WEDNESDAY, September 4, 1867, for excavating the prism and constructing the embankment wall of the Canal for the improvement of the navigation of the Mississippi river at the Des Moines Rapida.

of the Mississippi river at the Des Moliles Rapids. The Canal is to be about 7½ (seven and one-balf) miles long, extending from Nashville to Keokuk, lows. The width at the water surface inside the canal to be 300 (three hundred) feet in embankment, and 250 (two hundred and fity) icel in excavation, and in low water to be 5 (five) feet deep. All the material excavated from the prism of the canal to be used in build-ing the embankment. The latter throughout the greater part of the distance will be about 300 (three hundred) leet from the lows shore. Where rock excavation occurs, the bottom of the canal will have a slope of 1½ (one and one-half) inches to the mile. The embankment is to be built of earth clay and rock; to be 10 (16n) feet wide on top, including the fip-rap cover-ing; to be 2 (two) feet above high-water mark, with slopes of 1½ (one and one-half) base to 1 ing; to be 2 (two) reet above high-water mark, with slopes of 114 (one and one-half) base to 1 (cne) vertical. The average thickness of the rip-rap protection to be 214 (two and one-half) feet on the river side, 2 (two) feet on the canal side, and 1 (one) foot on top. All propositions must state the price at which and even which are the price at which

each and every kind of work specified in the proposal is to be done, and no bid will be con-sidered that is not definite in this respect. The Government reserves the right to reject

any and all bids. A printed copy of this advertisement must be

A printed copy of this advertisement must be attached to each proposal. Each bid must contain a written or printed guarantee signed by two responsible persons. Bianks for proposals of the form required, with form of guarantee, will be formissed at this office on application. The price or prices in the contrast will be con-

The price or prices in the contract will be con-sidered as including the expense of furnishing all the materials and performing all the work, according to the plans and specifications exhi

according to the plans and specifications exhi-bited at the letting. The entire cost of the canal is estimated at \$2,068,545 (two million sixty-eisht thousand three hundred and forty-five). The amount ap-propriated by Congress is \$700,000 (seven hun-dred thousand dollars)—the contract can only be much to cover this amount. be made to cover this amount.

Fifteen (15) per cent. of the amount of any work done or materials furnished, at the contract price thereof, will be reserved until the whole work which is the subject of contract shall be entirely completed. Persons desiring further information can

obtain the same by calling at this office, where maps, plans, specifications, and form of con-

maps, plans, spectrocators, and form of con-tract can be consulted. Proposals must be addressed to the under-signed, and should be endorsed "Proposals for work on the improvement of the Des Moines Rapids." J. H. WILSON, Licut.-Col. 35th Infantry, But Major General U.S. Army. 7-80.4w

Byt. Major-General U. S. Army.

PROPOSALS FOR A NEW JAIL.

DEPARTMENT OF THE INTERIOR, WASHINGTON, D. C., July 31, 1867, Sealed proposals will be received at this De-partment until 12 o'clock M., on TUESDAY, the 17th of September, 1867, for the erection of the Jail in and for the District of Columbia, autho-rized and provided for by the act of Concrete The and provided for by the act of Congress, approved July 25, 1866, and the joint resolution approved March 2, 1867. The designs, detail, drawings, and specifica-tions can be seen at the architect's office, in the eastern grounds of the Capitol, Washington of the eastern grounds of the Capitol, Washington

city, every day, except Sundays, between the hours of 9 A. M. and 3 P. M. Separate bids will be received for the ma-soury work, brick work, iron work, and car-

pentry work. The contractor whose bid may be accepted

will be required to enter into a sufficient bond to be approved by the Secretary of the Interior, for the faithful completion of his contract. Payments will be made as the work progresses, on estimates certified to by the architect; but twenty per centum of the estimates will be retained until the contract is completed.

retained until the contract is completed. The contract will be awarded to the lowest responsible bidder, but the Department re-serves the right to reject any or all of the bids should it be deemed for the interest of the Government to do so. The bids will be opened at noon on the 18th day of September next, in presence of such of the bidders as may choose to attend

sexual difference of color-while the opennested Tanagers have the females dull-colored and sometimes with almost protective tints. No doubt there are many individual exceptions to the rule here indicated, because many and various causes have combined to determine both the coloration and the habits of birds. These have, no doubt, acted and reacted on each other; and then, under changed conditions, it may well have happened that one

- 25,000 pounds Railroad Clinics. I Posh Car Frame.

has become modified, while the other has been continued by hereitary descent, and exists as an apparent exception to what otherwise seems a very general rule. The facts presented to us by the sexual differences of color in birds and their mode of nesting, are on the whole in perfect harmony with that law of protective adaptation of color and form which appears to have checked to some extent the powerful action of sexual selection. and to have materially influenced the coloring of female birds, as it has undoubtedly done that of female insects.

We have now completed a brief, and necessarily very imperfect, survey of the various ways in which the external form and coloring of animals is adapted to be useful to them, either by concealing them from their enemies or from the creatures they prey upon. It has, we hope, been shown that the subject is one of much interest, both as regards a true comprehension of the place each animal fills in the economy of nature, and the means by which it is enabled to maintain that place: and also as teaching us how important a part is played by the minutest details in the structure of ani mals, and how complicated and delicate is the equilibrium of the organic world .- Westminster Review.

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By order of the Quartermaster-General, JOHN F. RODGERS, Captain and Military Storekeeper 8 19 13t United States Army. T ARGE SALE OF NEW MATERIAL

DEFOT QUARTERNASTER'S OFFICE, WASHINGTON, D. C., August 15, 1807. By direction of the Quartermaster-General

large lot of new Quartermaster's Stores and Horse Medicines will be sold at public auction, at Lincoin Depot, under the supervision of Brevet Lieutenant-Colonel James M. Moore, Quartermaster U. S. A., on MONDAY, Sep-tember 2, commencing at 10 A. M., consisting in part of-90 coal oil iamps, 108 lbs. ingot copper, 575 coal oil burners,

5,000 table legs. 17,444 lbs.asst. iron nuts. 7,481 lbs. iron and cop-4000 tin cups, 2500 lbs. iron wire, per rivets, 14,648 handles,axe,pick, 658 lbs, R. R. and other spikes, 103 carpenters', etc., plane, etc. 110 wagon clamps, 7679 lbs. oil tanned leather, 210 wrenches, Gov ernment pat leather, 846 lbs. sole leather, 2483 lbs. oakum, 177 lbs. Mica, 216 lbs. packing hemp, 216 lbs. packing hemp, tern 9 gang saws,

244 yds.paper muslin, 1,382 ft. linen hose, 271 spools W. and B. thread, 8100 ft. coil chain, 260 ft. gutta percha tubing. ALSO, 300 Ibs, sulphate cop-

saddle

130 lbs. aloes 100 lbs. calomel, 100 lbs. alum, 100 lbs. sugar lead, 362 ibs. glauber salts 100 ibs. epsom salts, 646 lbs sulphur,
100 lbs, tartar emetic,
75 lbs, corrosive subilimate,
80 lbs, iodide potassa, 100 lbs. nitrate potas 56 lbs. cream tartar 447 ibs.,olis juniper, spike, amber, wintergreen British, croton, hemlock, etc. etc.; 473 ibs. tinc tures, lobelia, ginger, iodine, myrrh, hemlock etc. Red precipitate, spatulas, prescription scales, syringes, ointment, do jars, etc. etc. Catalogues of sale can be had upon applica-Terms-Cash in Government funds. By order of General C. H. Tompkins, Depo Quartermaster.

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ASSISTANT QUARTERNASTER'S OFFICE, No. 1139 GIRARD STREET,

No. 1139 GIRARD STREET, PHILADELPHIA, August 19, 1867.) Proposals will be received at this office until 12 o'clock M., SATURDAY, August 24th, 1867, to restore to its original condition eleven hundred and fifteen (1115) feet, more or less, of "Willow Grove Avenue," Chesnut Hill, Philadelphia, on the grounds formerly occupied by the United States Government in connection with the "Mower" Hospital. Each bid must be guaranteed by two respon-

Each bid must be guaranteed by two respon-sible persons, whose signatures must be ap-pended to the bid, and certified to as being good

and sufficient security for the amount involved, by the United States District Judge, Attorney,

Collector, or other public officer. Blank forms for bids can be had on applica-tion at this office, and bidders are requested to be present at the opening of the same.

be present at the opening of the same. The right is reserved to reject any bid deemed too high, and no bid from a defaulting con-tractor will be received. Endorse envelopes, "Proposals for Repairs to Willow Grove avenue." By order of Brevet Major-General G. H. Cros-man Assistant Opertromator General Unitsd

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